

**IUCN  
Environmental  
Law Programme**

# **Towards a “Second Generation” in Environmental Laws in the Asian and Pacific Region**

**Select Trends**

**Edited by  
Lye Lin-Heng with Maria Socorro Z. Mangiat**



**Proceedings of an IUCN/IGES/ADB Symposium  
ADB Institute, Tokyo, Japan**

**IUCN Environmental Policy and Law Paper No. 48**

**IUCN**  
The World Conservation Union

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**IUCN – The World Conservation Union  
2003**

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# Table of Contents

Messages	
<i>H. E. Akiko Domoto</i>	vii
<i>Dr Jungsoo Lee</i>	viii
<i>Prof. Akio Morishima</i>	x
Preface, <i>John Scanlon</i>	xi
Acknowledgements	xii
List of contributors	xiii
<b>Introduction, <i>Lye Lin-Heng</i></b>	1
<b>I. The evolving scope of environmental law</b>	13
<b>The first generation of environmental laws in Asia, <i>Koh Kheng-Lian</i></b>	15
<b>Challenges confronting the progressive development of a second generation of environmental laws, <i>Nicholas A. Robinson</i></b>	27
<b>From Rio to Johannesburg: A review of Asian Development Bank environmental practice and policy (reproduced with permission from [2002] 6 Sing JICL 723–746), <i>John A. Boyd</i></b>	33
<b>II. Reforms to the energy law agenda to implement the Kyoto Protocol</b>	49
<b>The UNFCCC after the decisions of Johannesburg’s WSSD</b> <i>Maria Socorro Z. Manguiat</i>	51
<b>Implementing the Kyoto Protocol beyond WSSD at Johannesburg – the Japanese Perspective, <i>Akio Morishima</i></b>	59
<b>The Kyoto Protocol and the Asian Development Bank, <i>John A. Boyd</i></b>	67
<b>Energy law’s potential contributions to stabilize climate</b> <i>Nicholas A. Robinson</i>	73
<b>III. Remediation of chemically treated soils</b>	83
<b>The Soil Remediation Act in Japan, <i>Yumihiko Matsumura</i></b>	85
<b>Lessons learned from twenty years of experience in soil restoration: The evolution of lender liability under the Comprehensive Environmental Response, Compensation and Liability Act</b> <i>Hiroko Muraki Gottlieb</i>	93
<b>Restoration of industrial sites under Australian environmental laws</b> <i>Donna Craig</i>	109
<b>IV. Case studies on biodiversity law – beyond establishing parks</b>	121
<b>Regional biodiversity collaboration – the ASEAN approach</b> <i>Koh Kheng-Lian</i>	123
<b>The effective management of wetlands in Japan, <i>Hiroji Isozaki</i></b>	135
<b>The impact of intellectual property rights and trade-related issues on biological diversity, <i>Michael I. Jeffery</i></b>	143
<b>Appendix I – The Earth Charter, March 2000</b>	157

**Appendix II – Capacity building for environmental law in the  
Asian and Pacific Region: Approaches and resources  
Vols. I and II  
Table of contents**

165

*Edited by Donna G. Craig, Nicholas A. Robinson and Koh Kheng-Lian  
2<sup>nd</sup> edition, 2003; Asian Development Bank*

# Messages

I am delighted to hear that this IUCN symposium on environmental law is being held in Tokyo, Japan. I sincerely hope that this meeting proves to be fruitful for all its participants.

In the twentieth century, laws were based on economic growth and development. This new century, however, calls for the reassessment of all laws from an environmental perspective in consideration of such looming environmental concerns as global warming, degradation of biodiversity, and pollution. Furthermore, all existing environmental laws need to be updated to ensure their effective operation in the current times. It is imperative, however, that all countries join hands in this effort to make a difference in the environment on a global scale. For this reason, I feel this international symposium is so valuable. It is my wish that the sharing of your ideas will motivate each of you to make new laws in your home countries that work toward protecting the earth that we all share.

*H. E. Akiko Domoto, Governor, Chiba Prefecture, Japan.  
Former Vice-President, IUCN  
11 November 2002*

## **ADB and capacity building in environmental law**

I would like to welcome all of you to the launch of a book on “*Capacity Building for Environmental Law in the Asian and Pacific Region: Approaches and Resources*”, and to the symposium on “*The Second Generation of Environmental Laws*”.

This book is a pioneering work: the first law publication to focus on environmental law in the Asian and Pacific region. To produce this publication, a vital cooperative role has been played by the International Union for Conservation of Nature and Natural Resources (IUCN)-Commission on Environmental Law, the United Nations Environment Programme (UNEP), and the Asian Development Bank (ADB).

As a representative of the Asian Development Bank, I would like to take this opportunity to brief you about ADB, and also to explain to you about the background of how this book has come to emerge.

The ADB is a multilateral development bank – “multilateral” because it involves many countries; “development” because it is concerned with economic growth and cooperation, and “bank” because it lends money. ADB is a working partnership of the developing countries of the region and the developed countries of the world. ADB’s shareholders are its members. Today, ADB membership has grown to 61 countries. Forty-four of these countries are from the region and 17 countries are from outside the region. Developing member countries from the region are the clients of ADB. The largest shareholders of ADB are Japan and the United States.

ADB’s Headquarters is in Manila. There are resident missions throughout the region, and representative offices in Frankfurt, Tokyo and Washington DC.

ADB’s most important partners are the governments with which it deals. ADB also works with other funding agencies and international organizations, collaborating closely with the World Bank, IMF and bilateral donors. Increasingly, ADB works with non-government organizations, and it carefully considers what they say. More and more, ADB also works directly with the private sector, as it has long recognized the importance of the private sector for development.

Most of the world’s poor live in Asia. About 800 million Asians live on less than \$1 a day. In other words, about 800 million Asians live in absolute poverty. Realizing that so many Asians have not benefited from the region’s economic development, ADB recently reviewed its own experiences and capabilities, and reaffirmed that ending poverty is its overarching goal. ADB’s poverty reduction strategy hinges on three pillars, namely, pro-poor sustainable economic growth, social development, and good governance. ADB continues to have a long-standing commitment to protecting the environment and improving human and social capital to enable the region to reduce poverty.

But ADB cannot do it alone. Safeguarding the future of our environment in the Asian and Pacific region requires intelligent and sensitive stewardship and cooperation from all the parties involved. This book is a fine example of such cooperation among many players.

Let us now look back at how this book evolved. In 1992 the Rio Earth Summit Agenda for environmental action in the 21st Century, known as Agenda 21, deemed that “competent international and academic institutions could cooperate to provide, especially for trainees from developing countries, post graduate programmes and in-service training facilities in environmental law and development law”.

In December 1995, Dr Parvez Hassan, former chair of IUCN’s Commission on Environmental Law, knowing that ADB had long recognized the importance of

environmental dimensions in the development process, approached ADB for assistance to improve environmental law education in the Asia-Pacific region.

ADB responded with a technical assistance grant of US\$600,000 to IUCN to work with the Faculty of Law of the National University of Singapore (NUS). The NUS provided S\$250,000 in kind, and in 1996, the Asia-Pacific Centre for Environmental Law (APCEL) was established at NUS.

In the summers of 1997 and 1998, two intensive environmental law courses were conducted at NUS, in collaboration with UNEP, the United Nations University (UNU) and the United Nations Institute for Training and Research (UNITAR).

More than 30 resource persons taught in each of the two courses on a *pro bono* basis. The 63 law professors participating in the courses were from 15 countries – Bangladesh, Cambodia, People’s Republic of China, Fiji Islands, India, Indonesia, Lao People’s Democratic Republic, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Sri Lanka, Thailand and Viet Nam.

From 1997 until 1999, seminars for judges on aspects of environmental law were held throughout the Asian and Pacific region, and from 1998 until 2001, education and training has been ongoing.

Subsequently, IUCN, acting through Professors Donna Craig, Nicholas Robinson and Koh Kheng-Lian, produced this environmental law book, in a project coordinated by Messrs. John A. Boyd and Jyrki Wartiovaara of ADB. This year ADB is publishing hard copies of the two-volume book and CD-ROM to be available internationally.

Before I conclude my remarks, special mention must be made of the outstanding efforts to produce this book, particularly those of Dr Parvez Hassan who initiated the project; Singapore’s Ambassador at Large, Professor Tommy Koh; the National University of Singapore; and the UN University.

This book is a milestone in environmental law in the Asian and Pacific region, a landmark cooperative effort. More than 200 environmental experts produced articles, free of charge, for the publication. The three editors worked tirelessly to compile the book.

UNEP, IUCN and ADB guided the project. Many others, as you will see from the acknowledgements in the summary, played important roles without which the book could not have been produced. I thank them all and hope that this cooperative spirit will be sustained.

I wish you fruitful deliberations in the symposium.

*Dr Jungsoo Lee, Resident Director,  
Japanese Representative Office, Asian Development Bank, Tokyo, Japan  
11 November 2002*

On behalf of the Institute for Global Environmental Strategies (IGES), one of the co-organizers of this symposium, I would like to extend my warm welcome to this important symposium. IGES was established in 1998, by the Japanese government, to contribute to the Asia-Pacific region in the area of the environment. We are doing practical strategic policy research on global environmental issues, aiming to realize sustainable development and focusing on the Asia-Pacific region.

One of the purposes of this symposium is to introduce the recent publication of the book, *Capacity Building for Environmental Law in the Asian and Pacific Region: Approaches and Resources, Volumes I and II*. The book is published by ADB, one of today's sponsors, and edited by three professors, Professors Craig, Koh and Robinson. We are very much honored to have them with us today.

Needless to say, international and national environmental law are one of the prerequisites to realize sustainable development in the 21<sup>st</sup> century. Japan already has more than three decades of environmental law, but I am afraid that our laws are still in the first generation. Today, we will discuss what the second generation environmental laws could be and I hope we will learn much through the discussion. Especially for the Japanese environmental lawyers, I hope this symposium will provide a good start for our consideration of the second generation of environmental laws for Japan.

*Prof. Akio Morishima, Chair of the Board of Directors  
Institute for Global Environmental Strategies (IGES), Japan  
11 November 2002*

# Preface

The IUCN Environmental Law Programme (ELP) is proud to present this compilation of “thought pieces” from experts belonging both to the IUCN Commission on Environmental Law (CEL) and the IUCN Environmental Law Centre, both part of the ELP – the world’s leading environmental law network. The strong involvement of CEL members from North and Southeast Asia and Oceania in the symposium that led to this publication, and in its preparation, is a particularly pleasing feature of this initiative.

The vision of the ELP is:

*Laying the strongest possible legal foundation at the international, regional and national levels for environmental conservation in the context of sustainable development.*

While we continue to strive towards the improvement of the first generation of environmental laws and their effective implementation, our rapidly changing world also requires us to excite some critical thinking about the second generation of environmental laws. The symposium was an attempt to fuel discussion on what we have achieved with the first generation, what we need to do for the second generation, and how we can bridge these two generations. Through this book we have attempted to capture the provoking thoughts raised during the symposium, which recent developments have validated to be pressing concerns for the world.

The articles cover a broad range of issues that are of interest, especially to the Japanese audience for which the symposium was designed, but also to the broader regional and international community. They examine the issues from the national, regional, and international perspectives, and focus not only on State action, but also on the contributions of a regional financial institution, the Asian Development Bank, which has been a staunch supporter of the ELP’s capacity building programme in the Asian and Pacific region.

Recognizing the need to view environmental law from a broader perspective, the articles also demonstrate how the evolution of environmental law and regulation affect investment, and how economic and political considerations weigh upon negotiations of international instruments.

The challenge, as Prof. Nicholas Robinson, Chair CEL, has stated, is to realize the first generation of environmental laws as we fashion and apply the next generation. May this book serve as a contribution to this twin challenge.

*John Scanlon  
Head, IUCN Environmental Law Programme  
Director, IUCN Environmental Law Centre, Bonn*

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The IUCN Commission on Environmental Law (IUCN-CEL) and the Institute for Global Environmental Strategies (IGES) gratefully acknowledge the financial and other support provided by the Asian Development Bank for the book launch and Symposium, which led to this publication. IUCN-CEL and IGES would also like to extend their thanks to the IUCN Environmental Law Centre (IUCN-ELC), headed by John Scanlon, and his staff, for their assistance in organizing the book launch and Symposium. Finally, we wish to thank the IUCN Publications Services Unit for their editorial and administrative work on this book, and Stephane Levy of IUCN-ELC for his additional proofreading.

*Lye Lin-Heng,  
IUCN Commission on Environmental Law*

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**John A. BOYD** holds a Bachelor of Arts from the University of Utah, a Master of Public Administration from Harvard University, and is a graduate of the Boalt Hall School of Law, University of California at Berkeley. He served as Senior Counsel and Principal Sector Specialist (Sustainable Development) at the Asian Development Bank and is currently a member of the IUCN Commission on Environmental Law. For a decade, he contributed to the *Yearbook of International Environmental Law*, articles concerning environmental law and sustainable development at the Asian Development Bank.

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**Hiroko MURAKI GOTTLIEB** is an attorney with the law firm of Robinson & Cole LLP. She specializes in providing environmental compliance counselling, negotiating and drafting transactional documents, assessing environmental liabilities, representing municipalities in administrative appeals and advising on environmental litigation. Recent representative matters include advising a corporate client on compliance with EPA (Environmental Protection Agency) mandated site investigation and remediation at a multi-party superfund site. She is Vice-Chair of the American Bar Association, Section on Environment, Energy and Resources, Committee on International Environmental Law. She is a graduate of Pace University School of Law, *cum laude*, where she received a certificate in Environmental Law.

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Affiliated with the Japan Society of International Law, the Japan Society of World Law, the Japan Society of Wildlife Conservation, the Japan Society of Environmental Economics, Policy and Law and the Japan Society of Environmental Law and Policy, as well as serving as a member of the Expert Group of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) of the Convention on Biological Diversity and the Commission on Environmental Law of IUCN, and several advisory bodies of the Japanese Government and local authorities. He has provided academic opinions and published articles and books in these areas.

**Michael I. JEFFERY QC** is a professor holding a Chair in Law in the Division of Law at Macquarie University, Sydney. He is Director of the University’s Centre for Environmental Law. Appointed a Queen’s Counsel in 1978, he practised for many years at the Ontario Bar and Chaired the Environmental Assessment Board in Ontario, Canada, in the 1980s. He is currently the Deputy Chair of the IUCN’s Commission on Environmental Law and serves as a Board Member of the New South Wales’ Environmental Defender’s Office. His research interests lie primarily in the area of international and comparative environmental law and he has undertaken extensive research and published recent articles on climate change and the use of market-based financial mechanisms, biodiversity and bioprospecting and the need for intervenor funding in the context of public participation in environmental decision-making.

**KOH Kheng-Lian** is a Professor of the Faculty of Law, National University of Singapore and the Director of the Asia-Pacific Centre for Environmental Law (APCEL), established by the Faculty. She is the regional Vice-Chair for South and East Asia of the IUCN – The World Conservation Union Commission on Environmental Law (IUCN-CEL), and a member of its Steering Committee. She was a consultant on capacity building in environmental legal education for the Asian Development Bank. She is Director of a number of workshops on urban and industrial environmental management for the Singapore Ministry of Foreign Affairs. She has served as a resource person in numerous capacity building seminars in environmental law including the UNITAR (United Nations Institute for Training and Research) seminars on implementation of multilateral agreements related to biological diversity. She was one of the three editors, together with D.G. Craig and N. A. Robinson, of *Capacity Building for Environmental Law in the Asian and Pacific Region: Approaches and Resources* (ADB, 2002).

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of Law, and as the Dean of Graduate School of International Development. He contributed to the Basic Environmental Law in Japan as Chairman of the Policy and Planning Committee of the Central Environment Council and was the mastermind behind the report *Basic Environment Plan* in 1998 which outlines the long-term policies for environmental conservation in Japan. He is the 1996 laureate of UNEP's Global 500 Award.

**Nicholas A. ROBINSON** is the Gilbert & Sarah Kerlin Distinguished Professor of Environmental Law at Pace University School of Law, in New York. He has served two terms (1996–2004) as the Chair of the Commission on Environmental Law of IUCN – The World Conservation Union. Together with Koh K.L., he directed the Asian Development Bank's capacity building programmes for professors of law in Asia and the Pacific, and with Koh K.L. and D.G. Craig co-edited the two volumes which were launched at the Asian Development Bank Institute in Tokyo on the occasion of the symposium exploring the “second generation” of environmental laws. He is a laureate of the Elizabeth Haub Prize in Environmental Law, conferred by l'Université Libre de Bruxelles and the International Council of Environmental Law. His Juris Doctor degree is from Columbia University School of Law (1970) and his Bachelor of Arts Degree is from Brown University (1967).

# Introduction

*Lye Lin-Heng\**

The Asian and Pacific region “covers 23% of the world’s land area and contains 55% of the world’s population”.<sup>1</sup> It is an area that has seen tremendous growth since the meeting of world leaders at the United Nations Conference on the Human Environment in Stockholm in 1972. While such growth has been uneven from country to country, it has had definite deleterious impacts on the environment. Indeed, it has been predicted that, “...owing to increases in population and high economic growth, the Asian region will experience far greater pressure from environmental damage than any other region”, and that unless Asia moves on the path to sustainable development, the time will come when productivity falls and economic growth declines.<sup>2</sup>

Sound environmental laws and policies, as part of a national and regional environmental management system are critical for sustainable development. However, the development of environmental laws in this region has also been uneven. While some countries have well-established legal systems, comprehensive environmental laws and a sound administrative system, others have newly emerged from civil war or from socialist economies, and need considerable assistance in capacity building.

The Asian Development Bank was established in 1996 with poverty reduction as its “clear and single minded vision”.<sup>3</sup> The protection of the environment is one of its objectives as well as its strategies.<sup>4</sup> Within it, law and policy reform are important areas of focus.<sup>5</sup> The environment was important from as early as 1980, when the Declaration of Environmental Policies and Procedures Relating to Economic Development was signed in New York by the ADB’s President, together with representatives of nine other banks and international entities. The Earth Summit added impetus to its efforts, and in its own words:

“Since the historic Earth Summit in Rio de Janeiro in 1992, ADB has been aggressively responding to the escalating demand from its DMCs [developing member countries] for assistance in environmental management. Over the years, ADB’s environment agenda has evolved from impact mitigation to impact prevention, and has expanded to cover environmental integration into country operations, and sector and macro policy work, along with targeted interventions in loan projects to achieve direct environmental benefits. ADB

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\* Deputy Director, Asia-Pacific Centre for Environmental Law, Faculty of Law, National University of Singapore

<sup>1</sup> Asian Development Bank Annual Report 2002 at 17.

<sup>2</sup> See Oogai O. and Tanaka A. “Sources of Funds for Environmental Management” in Owens, G. M. (ed.) *Financing Environmentally Sound Development*, Asian Development Bank, 1994 pp. 115–129 (reproduced in *Capacity Building for Environmental Law in the Asian and Pacific Region, Vol. II*, Donna G. Craig, Nicholas A. Robinson and Koh Kheng-Lian, (eds.) ADB 2002 at pp.869–875 (hereinafter “the ADB Book”).

<sup>3</sup> “Fighting Poverty in Asia and the Pacific : The Poverty Reduction Strategy” ADB Policy Paper, November 1999, see [www.adb.org/Documents/Policies/Poverty\\_Reduction/default.asp?p=policies](http://www.adb.org/Documents/Policies/Poverty_Reduction/default.asp?p=policies). Its other objectives are: Promoting Economic Growth, Supporting Human Development, Improving the Status of Women, and Protecting the Environment.

<sup>4</sup> See [www.adb.org/About/objenv.asp](http://www.adb.org/About/objenv.asp)

<sup>5</sup> See Boyd J., *Financing and Capacity Building for Environmental Law in Asia: The Role of the Asian Development Bank*, 2001, the ADB book, *op cit.* n. 2 pp. 885–895.

and its partners have achieved significant progress; but considering the magnitude of environmental issues, the impact of these programs on broad environmental trends throughout Asia and the Pacific has been less than what was hoped for in Rio. ADB’s decision to make poverty reduction its overarching objective strengthened its environment agenda; moreover, it shifted its environment program focus to support this overarching objective.”<sup>6</sup>

ADB has since developed many policy initiatives to address environmental sustainability.<sup>7</sup> Many of its environmental projects include environmental law components, such as the Philippines Metro Manila Air Quality Improvement Sector Development Program, the Pakistan Legal and Judicial Reform Project, and technical assistance grants to the People’s Republic of China to improve the capacity of its legislative drafters. In 1997 and 1998, an ADB grant from the Japan Special Fund was used for the training of environmental law professors from the Asian and Pacific region. Two intensive one-month training programmes were held at the Faculty of Law, National University of Singapore (NUS), with co-financing in kind from IUCN – The World Conservation Union, NUS, the United Nations Environment Programme and the United Nations University. The materials used in these two programmes were further developed and published in two volumes entitled *Capacity Building for Environmental Law in the Asian and Pacific Region*, edited by Professors Donna G. Craig, Nicholas A. Robinson, and Koh Kheng-Lian (the ADB Book).<sup>8</sup>

The book was launched in Tokyo in November 2002, as one in a series of five launches<sup>9</sup> some two months after the convening of the World Summit on Sustainable Development (WSSD) at Johannesburg, South Africa.<sup>10</sup> To mark the occasion, a Symposium was held at the Tokyo office of the Asian Development Bank. The Symposium had as its theme, the “Second Generation” of environmental laws in the region. The Symposium highlights some of the first generation environmental laws that are discussed in the ADB book, as well as new areas of second generation laws that have since developed in the region. This book is a collection of papers that were presented at this Symposium. It focuses on select areas of environmental law which have since developed in the Asian and Pacific region. But what are the “second generation” of environmental laws? Indeed, what are the “first generation” environmental laws?

As discussed by Koh Kheng-Lian in the first paper, what are “first” and “second” generation environmental laws may mean different things to different people. The general view taken by writers in this book is that first generation environmental laws pertain generally to the first stage of the legal framework, dealing with traditional issues of environmental degradation in the context of pollution, fresh water resources and biological diversity conservation. As the approach to solving these problems moves a stage further and becomes more sophisticated, we see a second generation of environmental laws evolving to

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<sup>6</sup> *Ibid* n. 5.

<sup>7</sup> Today, the ADB’s Environment Policy (developed in 2002) addresses five main challenges: (1) the need for environmental interventions to reduce poverty; (2) the need to mainstream environmental considerations into economic growth and development planning; (3) the need to maintain regional and global life support systems; (4) the need to work in partnership with others; and (5) the need to further strengthen the processes and procedures for addressing environmental concerns in ADB’s own operations.

<sup>8</sup> See Foreword, Preface and Editors’ Acknowledgements to the ADB Book, pp 24–30. The book follows ADB’s first publication in the area of environmental law and policy entitled *Multilateral Development Banking: Environmental Principles and Concepts Reflecting General International Law and Public Policy* (2001) by Gunther Handl.

<sup>9</sup> The other launches were held in Washington, DC on 12 April 2002, Singapore on 3 May 2002, and in Lahore and Bonn on 20 June 2002.

<sup>10</sup> The WSSD was held from 26 August to 4 September 2002.

meet these challenges. This move from first to second generation laws may be a continuum or may take on a different dimension. Robinson in the second paper examines the criteria to guide the development of these second generation environmental laws and emphasises the necessity for law to work with science as well as the need for this relationship to be buttressed by firm ethical foundations.

The need for firm ethical foundations is critical as increasing urbanization cuts off the links of future generations with the earth. These values are enshrined in the Earth Charter, providing a timely reminder that we must “join together to bring forth a sustainable global society founded on respect for nature, universal human rights, economic justice, and a culture of people”.<sup>11</sup> At a gathering of international lawyers and judges at the World Summit, Dr Parvez Hassan, the former chair of IUCN’s Commission on Environmental Law aptly commented that the Earth Charter was the most important development in international environmental and sustainable development law since the Earth Summit at Rio.<sup>12</sup> While references to the Charter were deleted from the Johannesburg Declaration on the last day of the Summit, it is noted that the Declaration contains words that are almost identical to those expressed in the Charter.<sup>13</sup> With the emphasis on a caring global society, global interdependence and ethical responsibility, it can be said that despite the lack of a direct endorsement, the Summit at Johannesburg has acknowledged the spirit of the Earth Charter. Thus, it is thought appropriate to reproduce in this book, the Earth Charter, which states our aspirations and affirms very basic principles for the safeguarding of the earth for future generations.<sup>14</sup> It is significant that the WSSD acknowledged the importance of ethics in its Plan of Implementation.<sup>15</sup>

This book explores some select areas that can be regarded as “second generation” environmental laws, such as the new energy laws to implement the Kyoto Protocol, the remediation of chemically treated soils, the protection of indigenous knowledge under the Convention on Biological Diversity, the conservation of biological diversity beyond the establishment of parks, and the management of wetlands. There are many other areas that can be deemed “second generation” but this book can only examine a select few areas.

This book is in four parts (apart from this Introduction). The first part focuses on the evolving scope of environmental law, the second examines the reforms to the energy law agenda to implement the Kyoto Protocol; the third looks at the remediation of chemically treated soils, and the last part examines the laws relating to biodiversity.

## I. The evolving scope of environmental laws

The book begins by introducing the “first generation” of environmental laws, with a paper by Koh Kheng-Lian entitled “The First Generation of Environmental Laws in Asia”. Koh notes that the concept may mean different things to different people. This paper focuses on aspects

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<sup>11</sup> The Earth Charter, Preamble.

<sup>12</sup> *The Earth Charter at the Johannesburg Summit: A Report prepared by the Earth Charter Steering Committee and International Secretariat*, November 2002.

<sup>13</sup> The Preamble to the Earth Charter states that “... it is imperative that we, the peoples of Earth, declare our responsibility to one another, to the greater community of life, and to future generations”. Paragraph 6 of the Johannesburg Declaration reads “...we declare, through the Plan of Implementation and this Declaration, our responsibility to one another, to the greater community of life and to our children

<sup>14</sup> See Appendix.

<sup>15</sup> Para. 6, WSSD Plan of Implementation states: “We acknowledge the importance of ethics for sustainable development and therefore emphasise the need to consider ethics in the implementation of Agenda 21”. See [www.un.org/esa/sustdev/documents/WSSD\\_POI\\_PD/English/POIToc.htm](http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/POIToc.htm)

of some of the "first generation" environmental laws namely: pollution laws (in particular, Singapore's air pollution laws); fresh water resources (in particular, some initiatives taken in relation to the Mekong River Basin), and biodiversity conservation (examining the implementation of the Convention on Biological Diversity in countries in Asia). The writer takes the view that the Convention on Biological Diversity and the Ramsar Convention are "second generation" as they introduce novel and sophisticated concepts of conservation with the equally new concept of "sustainable development". They go beyond the traditional approach of "parks with fences" to the "ecosystem" or "beyond parks" approach. They are also regarded as "second generation" as they are "people centred". Likewise, soil remediation is "second generation" as it is premised on an ecosystem approach.

Koh then examines Singapore's clean air laws, particularly its innovative measures to discourage vehicular ownership and road usage, as well as its tightened emission standards, mandatory inspections, and cleaner fuels, concluding that Singapore is moving into the second generation of energy efficiency with a pilot project to use compressed natural gas vehicles and the formation of a National Energy Efficiency Committee. Next, Koh highlights some initiatives in Asia on the use of freshwater resources, emphasising chapter 18 of Agenda 21, in particular, the cooperation among four countries in the lower Mekong River Basin, following the Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin (5 April 1995). The paper also highlights the many Asian efforts at implementing the Convention on Biological Diversity, in particular, the individual national biodiversity strategies and action plans (NBSAPs). It concludes that the first generation of environmental laws in Asia has "developed unevenly", such that while some countries are moving to the second generation of environmental laws, others have only just embarked on drafting first generation legal frameworks.

The second paper, by Nicholas A. Robinson, entitled "Challenges Confronting the Progressive Development of a Second Generation of Environmental Laws", emphasises at the outset that environmental law is a fundamental requisite to "sustainable development". Noting that the first generation of environmental law evolved gradually, he analyses its evolution in five phases, starting from traditional rules on torts or delicts including the evolution of the public trust in Roman law, to conservation laws; to laws to address pollution; moving on to integration and consolidation in the form of framework legislation or procedures such as environmental impact assessment rules, and culminating in constitutional protection for the environment and the provision of basic environmental rights to citizens, each flowing as a consequence from the other.

Emphasising that the need to build capacity at all levels to establish effective environmental law is a high priority, Robinson puts forth seven attributes that must be taken into account in the next generation of environmental laws. These are: first, the need for fundamental values and ethical norms – "environmental ethics is the jurisprudential foundation of the next generation of environmental laws". Second, a continuum of laws is necessary, passing beyond national, municipal or international law, building linkages between each level of government. Third, environmental law is characterized by a scientific foundation and the next generation of environmental laws must be taught together with science, as a partnership between law and science towards the development of an "Earth Systems Science" or a "Science of Sustainability". Fourth, environmental law is not the province of a single ministry but is permeated by matrix systems, and the same legal tools must be understood and applied holistically by the leaders of every sector. Fifth, it is essential that cultural traditions towards nature and a reverence for life be respected and built into the understanding of each society, away from the present focus on utilitarian values. Sixth, environmental law must establish the systems to eliminate waste, and reuse or recycle all current waste products. Finally, Robinson calls for new tools towards the stewardship of our

shared environment, such as ecosystem management. He concludes by emphasising that our challenge is to realize the first generation of environmental laws while we fashion and apply the next generation.

The third paper entitled “From Rio to Johannesburg: A Review of Asian Development Bank Environmental Practice and Policy” is by John Boyd, former Senior Counsel for the Asian Development Bank. It is reprinted from the *Singapore Journal of International and Comparative Law*.<sup>16</sup> Boyd begins by highlighting ADB’s latest Environment Policy, approved on 8 November 2002. He links it to the Rio Declaration, Principles 1 – 5: Living in Harmony with Nature and Eradicating Poverty; Principle 9 – Capacity Building; Principle 10 – Access to Judicial Proceedings; Principle 11 – Effective environmental legislation; and Principle 12 – Promoting an open international economic system for sustainable development. For principles 11 and 12, he uses the examples of the ADB’s programmes in the People’s Republic of China. Boyd next examines the Bank’s mandate and its resources, focusing on the number of professional and support staff members with environmental training and highlighting the considerable work that each has to do. He concludes with a call for additional ADB staff with environmental and legal expertise in order to meet the Bank’s goal of addressing “environmental sustainability”.

## **II. Reforms to the energy law agenda to implement the Kyoto Protocol**

It is clear that the UN Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol are part of “second generation” environmental law. Thus, Part II of this book focuses on the UNFCCC, the Kyoto Protocol and its relation to the WSSD; as well as the new directions of Energy Law in general.

The first paper by Maria Socorro Manguiat is entitled “The UNFCCC after the Decisions of Johannesburg’s World Summit on Sustainable Development”. It examines the links between the WSSD and the UNFCCC and its Kyoto Protocol by asking a series of pertinent questions. The first question asks what is the appropriate international response to the global issue of climate change. Manguiat’s answer is that the WSSD Plan of Implementation is a potential driving force for UNFCCC implementation and, in turn, the UNFCCC can be a means of advancing the goals of the WSSD Plan of Implementation. The second question asks how the WSSD Plan of Implementation promotes a robust UNFCCC regime. The third question asks how the UNFCCC can facilitate achievement of the goals set out in the Plan of Implementation. This is examined from the three requirements for sustainable development as set out in the WSSD, namely: poverty eradication, changing unsustainable patterns of production and consumption, and protecting and managing the natural resource base of economic and social development. The paper then addresses the means of implementation, examining in turn, the meaning of sustainable development, addressing the vulnerabilities of developing countries, as well as the need to seek synergies and linkages among the various multilateral conventions. It emphasises the need to constantly improve the science of climate change, to ensure adequate and timely financial flows, to enhance public awareness and capacity building. In addressing the future challenges, the writer firstly emphasises the role of ethics. She questions the 17<sup>th</sup> prefatory clause of the UNFCCC which states that “various actions to respond to climate change can be justified economically in their own right and can also help in solving other environmental problems”. The writer anticipates that Article 3.5 of

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<sup>16</sup> [2002] 6 *SJICL* 723–746.

the UNFCCC<sup>17</sup> will be an emerging cause of discussions in the future and recommends that parties be prepared to examine the links between trade and measures under the UNFCCC in the future.

The next paper, by Akio Morishima, examines the implementation of the Kyoto Protocol beyond the WSSD from the Japanese perspective. It outlines the measures and laws developed in Japan since COP3 in 1997, leading to the ratification of the Protocol in June 2002. Shortly after COP 3, the Global Warming Prevention Headquarters (GWPH) was set up, and in June 1998, published its Guidelines on Measures to Prevent Global Warming. 1998 saw the passing of the Law Concerning the Promotion of Measures to Cope with Global Warming (October 1998), as well as amendments to the Law Concerning the Efficient Use of Energies. The paper notes that much inefficiency in decision-making was caused by the lack of a unified administrative jurisdiction, in that environmental issues are under the jurisdiction of the Ministry of the Environment while energy-related issues are controlled by the Ministry of Economy, Trade and Industry (METI, formerly MITI). Thereafter, preparations were made to implement the Protocol but there was much opposition from various sectors particularly the heavy industries which discharged large amounts of CO<sub>2</sub>. In March 2002, the Guidelines on Measures to Prevent Global Warming were revised and in June 2002, after extensive discussions at the Diet, the Kyoto Protocol was ratified. The Japanese government is now taking a phased approach with careful monitoring and evaluation.

John Boyd's second paper focuses on the Kyoto Protocol and the Asian Development Bank. He begins by noting that the Bank's Environment Policy specifically mentions "Responding to Multilateral Environmental Agreements (MEAs)" and that the FCCC and its protocols are among the MEAs that support the ADB's regional cooperative efforts. He highlights some ADB technical assistance projects including the ALGAS (Asia Least-cost Greenhouse Gas Abatement Strategy) project (commenced in 1995) involving 12 countries in the region which together, house more than 50% of the world's population, as well as the Capacity Building in Environmental Law "Training the Trainers" project at the National University of Singapore, that led to the publication of the book that was the subject of the Launch and the Symposium in Tokyo. He also mentions a 1999 grant for technical assistance for implementation of the Kyoto Protocol and the Clean Development Mechanism and focuses on a 2002 ADB programme on Renewable Energy, Energy Efficiency and Climate Change (REACH) to assist Developing Member Countries (DMCs) in accessing sustainable energy and dealing with climate change uncertainties and mitigating greenhouse gas (GHG) emissions. REACH is supported by the governments of Canada, Denmark and the Netherlands. A parallel ADB programme on Renewable Energy and Energy Efficiency in the Pacific (REEP) is also mentioned, financed by the Danish Cooperation Fund. Mention is also made of ADB's assistance through loan financing for projects on renewable energy, energy efficiency and climate change, such as wind farms, biogas generation and coal gasification to replace coal burning with cleaner fuel. Boyd concludes by emphasising that since 1995, more than US\$21 million have been approved as technical assistance grant funds for climate change activities, primarily for capacity building, and ADB loans exceeding hundreds of millions of US dollars have financed projects to achieve renewable energy and energy efficiency objectives.

The last paper in this part is by Nicholas A. Robinson, entitled "Energy Law's Potential Contributions to Stabilize Climate". Robinson begins by stating that energy law has

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<sup>17</sup> This provides that "[m]easures taken to combat climate change, including laterals ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade".

developed as a disjointed body of statutes and treaties, focused on ensuring an adequate supply of energy rather than maximizing efficiency for its systems and securing equity among users; and failing to examine how energy suppliers can better take economic or ecological responsibility for the adverse effects of their processes. Society's vested economic interests in the use of petroleum as the preferred energy source effectively enabled the nations producing oil and gas to prevent the specific inclusion of any recommendations on sustainable energy use in the action plan, Agenda 21, although some chapters implicitly address an energy law agenda. The writer discusses the background to the inclusion of an energy agenda in the WSSD, which was helped by the recommendations of the 9th Session of the Commission on Sustainable Development. The Commission, in turn, was assisted by experts from the IUCN Commission on Environmental Law (IUCN-CEL) Specialist Group on Energy Law and Climate, established in 1994.<sup>18</sup> Paragraph 9 of the WSSD Plan of Implementation, containing seven recommendations on the provision of access to reliable and affordable energy is emphasised. These are: (1) improve access to reliable, affordable, economically viable, socially acceptable and environmentally sound energy services and resources; (2) improve access to modern biomass technologies; (3) promote a sustainable use of biomass and, as appropriate, other renewable energies through improvements of current patterns of use, such as management of resources, more efficient use of fuelwood and new or improved products or technologies; (4) support the transition to the cleaner use of liquid and gaseous fossil fuels where considered more environmentally sound, socially acceptable and cost-effective; (5) develop national energy policies and regulatory frameworks that will help to create the necessary economic, social and institutional conditions in the energy sector; (6) enhance international and regional cooperation to meet these ends, with special attention to rural and isolated areas; (7)<sup>19</sup> assist and facilitate on an accelerated basis... the access of the poor to energy services.

Robinson emphasises that two elements are required to realize these six recommendations. First, the basic principles that pioneered the development of environmental law will need to be applied to energy laws. These include the principles contained in the UN World Charter for Nature (1982) and the Stockholm Declaration on the Human Environment (1972). Second, renewable energy systems can then be deployed, guided by these principles. The paper concludes that while developments may emanate from the conferences of the parties to various conventions, such as the UNFCCC and the Convention on Biological Diversity (CBD), ultimately, energy law reform is a "quintessential national issue", and "parliaments around the world will need to address the reshap[ing] of national energy laws".

### III. The remediation of chemically treated soils

The third part of this book focuses on the remediation of contaminated land. It contains three papers, focusing on the position in Japan, the United States and Australia respectively. Soil contamination is a "second generation" issue in environmental law, particularly in the Asian and Pacific region and few nations in the region have passed laws to address this problem. Australia and Japan have done so, but Japan's experience is, as yet, untested, having only

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<sup>18</sup> A new book, *Energy Law and Sustainable Development*, was just released as IUCN Environmental Policy and Law Paper No. 47. The book was edited by Adrian J. Bradbrook and Richard L. Ottinger, Vice Chair and Chair respectively of the IUCN CEL Specialist Group on Climate and Energy Law, and features contributions from experts in climate and energy law and policy.

<sup>19</sup> Paragraph 20, WSSD Plan of Implementation, calls upon Governments as well as relevant regional and international organizations and stakeholders to implement the recommendations and conclusions adopted by the 9<sup>th</sup> Session of the Commission on Sustainable Development in relation to energy for sustainable development.

recently passed its Soil Remediation Act in 2002. In contrast, other developed countries have grappled with such laws for some time. The experience of the US and of Australia will thus be particularly helpful in the implementation of the fledgling laws that have just been passed in Japan; and will serve as a useful guide to the states in this region who are yet to pass such laws. The issue of liability of a lender-mortgagee is especially pertinent, as this caused grave concerns in the US, prompting several changes to the law.

This part starts with a paper by Yumihiko Matsumura, which provides an overview of the new Soil Remediation Act (SRA) in Japan, which came into effect on 15 February 2003 and is, as yet, uncomplicated by issues of implementation and enforcement. The SRA is applicable only to soil contamination on industrial sites, as agricultural land is governed by a separate law passed in 1970. It applies only when there is actual or potential damage to health. It provides for soil investigation, designation of a contaminated area, and imposes risk management measures which may include remediation or restriction on land use. Land that is designated as contaminated will be registered in a list of contaminated sites which is open to public inspection. It will be de-listed only if successfully decontaminated to a specified acceptable level. The person who has to take remedial measures is the owner of the land and not the polluter. The polluter is required to clean up only if (1) he is directly responsible for the contamination, (2) it is reasonable that he cleans up, and (3) the landowner consents. However, the landowner may claim compensation from the polluter for the remediation measures undertaken, provided these are taken pursuant to an administrative order. There is a Financial Support Scheme for landowners who cannot afford to carry out remedial measures, unless they have contributed to the contamination. Claims are also subject to periods of limitation. But there are no provisions on the liability of a mortgagee.

The second paper, by Hiroko Muraki Gottlieb, is entitled "Lessons from Twenty Years of Experience in Soil Restoration: The Evolution of Lender Liability under the Comprehensive Environmental Response, Compensation and Liability Act". It examines the experience of the United States (US) in its application of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), with particular emphasis on the evolution of lender liability and the exemption of secured creditors. CERCLA was passed in 1980 and amended in 1986 by the Superfund Amendments and Reauthorization Act (SARA), in 1996 by the Asset Conservation, Lender Liability and Deposit Insurance Protection Act (Asset Conservation Act) and in 2002 by the Small Business Liability Relief and Brownfields Revitalization Act (Brownfields). In the process, the writer provides useful comments on provisions contained in the Proposed SRA, Japan, on the issue of lender liability, but these appear to have been omitted from the law that was finally passed.

The writer starts by tracing the evolution of lender liability under CERCLA, which imposes potential liability on four broad categories of persons for the remediation of contaminated properties. These include (1) current owners and operators of a hazardous waste site; (2) prior owners who operated the site at the time the hazardous substances were disposed; (3) generators who arranged for disposal or treatment of hazardous substances at the site; and (4) transporters that brought hazardous substances to the site. Under this scheme, a lender would be subject to liability as an "operator" of a hazardous waste if it became involved in the management of a borrower prior to foreclosure or as an "owner" of a hazardous waste site upon foreclosure of the mortgage. However, persons who without participating in the management of a facility, hold indicia of ownership in the facility primarily to protect a security interest were exempted. While this appeared to protect lenders from pre-foreclosure liability, it was unclear whether taking possession of the property prior to foreclosure or acquiring property at foreclosure would make the lender an "owner or operator" and thus liable under CERCLA. Judicial decisions were conflicting and in 1991, the EPA deemed it necessary to issue a Lender Liability Rule which provided guidelines that identified a range of protected activities pre- and post-foreclosure that a mortgagee may

undertake without incurring liability under CERCLA. Notwithstanding these Rules, judicial decisions thereafter continued to be inconsistent, necessitating the passing of the Asset Conservation Act in 1996 which identified the “lender” and provided a range of activities pre- and post-foreclosure which would not constitute “participation in management”. It also provided a clearer definition of activities that would constitute “participation in management”.

The third paper, “Restoration of Industrial Sites under Australian Environmental Laws” by Donna G. Craig, examines the laws that govern the restoration of contaminated industrial sites in Australia in general, and the New South Wales (State) land contamination regime in particular.

Craig begins by stating that comprehensive data on contaminated sites across Australia is not available, but that in the two most populous states (New South Wales and Victoria), each has at least 30,000 contaminated sites. Australia is a federal system with nine jurisdictions (six states, two territories and the Commonwealth) each with its own legal regime relating to contaminated land. While the Commonwealth Government provides guidelines and standards, primary regulatory authority remains with state and territory governments. The scope of environmental liability is listed in a range of contexts, particularly civil and criminal liability for the corporation as well as personal civil and criminal liability for directors and officers of the corporation. Potential parties who could incur liability (as individuals or corporations) are also listed. The writer draws attention to the Australian Corporations Law which requires detailed environmental reporting, particularly section 299(1)(f) which requires directors to include in their annual reports, details of the company’s environmental performance in relation to environmental regulation.

At the Commonwealth level, there is no national legislation dealing with contaminated land, but only a national strategy contained in two sets of Guidelines and a National Environmental Protection Measure (NEPM). These guidelines are the Australian and New Zealand Environment and Conservation Council (ANZECC)/National Health and Medical Research Council (NHMRC) *Guidelines for the Assessment and Management of Contaminated Sites*, and the ANZECC *Discussion and Position Papers on Financial Liability for Contaminated Sites*. The NEPM (Assessment of Site Contamination Measure) was issued in 1999 and builds on the earlier Guidelines. Craig next examines the legal framework for contaminated land in New South Wales. This is contained in the Contaminated Land Management Act 1997, which defines “contaminated land”. The Act is triggered when land is contaminated such that it presents “significant risk of harm” to human health or the environment. The procedures are then listed – such as the powers of the EPA, the hierarchy of responsibility, investigation orders, remediation orders, appeals against orders, enforcement against companies and company directors. Craig concludes that while there are laws and guidelines, a fundamental problem is that “no register or inquiry process can provide a reasonably comprehensive identification of contaminated land anywhere in Australia”. Identification of contaminated sites is usually triggered by the planning and development control process. The Australian government has played a weak role as regulator, there is no uniformity in legislation in the eight States and Territories, and there is a strong preference for the informal approach.

#### **IV. Biodiversity law – beyond establishing parks**

The final part of this book looks at the next generation of biodiversity laws. It starts with a paper by Koh Kheng-Lian on “Regional Biodiversity Collaboration – The ASEAN Approach”. This focuses on some recent initiatives undertaken by ASEAN in the field of biodiversity conservation. Koh points out that the traditional approach to conservation of biological diversity was to build fences around parks, thus preventing human intervention. A “second generation” law would call for a “people” approach, an integrated approach, mindful

that “if protected areas are to contribute fully to sustainable development, they must meet the people’s needs” (IUCN World Commission on Protected Areas (WCPA)). Koh also examines the Ecosystem Approach and its application to ASEAN.

The paper identifies ASEAN’s biodiversity instruments, both hard law (Agreements) and soft law (Programmes, Plans of Action, Declarations, Guidelines). ASEAN’s governance structure is outlined, with particular emphasis on the ASEAN Regional Centre for Biodiversity Conservation (ARCBC) and its work. It examines whether ASEAN has moved to the “second” generation in biodiversity conservation – to a “beyond parks” approach. The ASEAN Declaration on Heritage Parks and Reserves, 1984, is examined to see if ASEAN parks fall within UNESCO’s Man and Biosphere (MAB) approach. Koh calls for ASEAN members to be signatories to UNESCO, to be part of the MAB network. Koh next focuses on the IUCN WCPA’s “peace parks” and “transboundary protected areas”, listing several peace parks that are also ASEAN Heritage Parks. Koh identifies ASEAN cooperation with various organizations and governments, such as the World Heritage Centre, WCPA East Asia, WWF, and with South Korea under the ASEAN-Korea Environmental Cooperation Project – Restoration of Degraded Forest Ecosystems in Southeast Asia Tropical Regions. Koh notes that the “ASEAN way” of collaboration has been “non-interventionist to the extreme”, such that implementation has to be taken more at the national than the regional level. In conclusion, Koh calls for a re-examination of the first generation biodiversity instruments, policies, strategies and plans of action to align them with this new concept of “beyond parks”.

The next paper is by Hiroji Isozaki, entitled “The Effective Management of Wetlands in Japan”. Again this paper takes the “beyond parks” approach, emphasising that laws on wetlands need to ensure their effective management and therefore, an integrated approach should be taken to ensure their sustainability. It is particularly important to involve the local community to ensure their well-being. The paper is in two parts. Part I focuses on the measures necessary for effective management of wetlands. It emphasises that wetland management should involve the local community, and the laws should ensure that the people are informed and allowed to participate, particularly in the environmental impact assessment procedures, which should examine not only the natural and physical impacts but also the socio-economic and socio-cultural impacts. The paper also calls for the designation of more areas as wetlands of international importance under the Ramsar Convention on Wetlands and advocates a cooperative management method such as the *Kooperationprinzip* in Germany. Experiences from several case studies in Japan are cited as examples, particularly on the application of EIA laws. Part II focuses on the wise use of wetlands, a key concept in the Ramsar Convention. The paper ties this in with provisions in the Convention on Biological Diversity (CBD) for access and benefit sharing and concludes that the next generation’s laws will require more research on the sustainable use of biological resources and on access and benefit-sharing, enforcement and compliance measures, as well as measures to ensure transparency and the participation of the local people.

The last paper is entitled “The Impact of Intellectual Property Rights and Trade Related Issues on Biological Diversity”. It is clear that the CBD is a “second generation” legal instrument. Michael I. Jeffery first gives an overview of the CBD and then examines particular provisions that relate to the protection of intellectual property rights – namely, those that deal with access and benefit sharing. Article 16 is examined in some depth. The TRIPS Agreement is then examined, particularly Article 27 which makes patents available for both products and processes, in all fields of technology provided they are new, involve an inventive step and are capable of industrial application. Potential conflicts between TRIPS and the CBD are mentioned, such as the need for an amendment to TRIPS to provide for fair and equitable benefit-sharing arising out the use of genetic resources, and protection for traditional knowledge. Article 8(j) CBD is discussed. It provides for the preservation of traditional knowledge, innovations and practices of indigenous and local communities and

encourages the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices. The TRIPS Agreement makes no provisions for the sharing of benefits with local and indigenous communities but the Bonn Guidelines have been drawn up on access to genetic resources and fair and equitable sharing of the benefits arising from their utilization. Jeffery concludes that there is clearly a need to harmonize TRIPS obligations with those of the CBD in this context, but this does not look promising in the short term.

## V. Appendices

The Book has two Appendices. Appendix I reproduces the Earth Charter, for reasons that have already been stated – the need to incorporate ethical foundations into the next generation of environmental laws. Appendix II reproduces the Table of Contents of the ADB Book *Capacity Building for Environmental Law in the Asia and Pacific Region: Approaches and Resources*, Volumes I and II. This Table of Contents is taken from the books' second edition, 2003. It is hoped that its inclusion in this book will be of considerable guidance and utility to environmental lawyers in the region.

## VI. Conclusion – universal responsibility and the ASEAN Environmental Education Plan

In conclusion, it must be emphasised once again, that the new generation of environmental laws must be premised on a foundation of ethics and respect for life. In the words of the Earth Charter, "...we must decide to live with a sense of universal responsibility, identifying ourselves with the whole Earth community as well as our local communities. We are at once citizens of different nations and of one world in which local and global are linked.... We urgently need a shared vision of basic values to provide an ethical foundation for the emerging world community".

In the context of ASEAN, these values can be transmitted via the ASEAN Environmental Education Action Plan 2002–2005.<sup>20</sup> The Plan's Vision and Mission statement reads, "The ASEAN member countries envision a clean and green ASEAN, rich in cultural traditions (where the values and practices of the people are in accord with the rhythm and harmony of nature) with citizens who are environmentally literate, imbued with environmental ethics, willing and capable to ensure the sustainable development of the region, through environmental education and public participation efforts". The Plan, which has been described as a "landmark in regional cooperation" has four target areas: Formal Education, Non-formal Education, Manpower Capability Building, and Networking, Collaboration and Communication. It is expected to serve as a framework for the development and implementation of environmental education activities in ASEAN. It is also hoped that it will provide a "holistic, dynamic and interactive environmental education agenda for ASEAN member countries".<sup>21</sup> In these efforts, the ADB can and no doubt will play a leading role.

As each citizen, young and old alike, learns to care for the environment as responsible ASEAN and global citizens under the ASEAN Environmental Action Plan, it is the environmental lawyer that will draft and implement the new laws that will forge this new world order, based on a reverence for life and the natural order that sustains it. This book and the ADB book that preceded it, are a start in this great journey.

<sup>20</sup> [www.aseansec.org/8957.htm](http://www.aseansec.org/8957.htm)

<sup>21</sup> For the Background, see: "Introduction, Mandate and Policy Guidelines", which details the history of the process dating back to 1977 with the first ASEAN Subregional Environment Programme (ASEP, moving on to the ASEAN Plan of Action 1999–2004.

# **I. The evolving scope of environmental law**

# The first generation of environmental laws in Asia

*Koh Kheng-Lian\**

This paper was presented on the occasion of the launch of the 2002 ADB publication, *Capacity Building for Environmental Law in the Asian and Pacific Region: Approaches and Resources*, edited by Donna Craig, Nick Robinson and Koh Kheng-Lian. It highlights some of the “first generation” environmental laws in Asia (consisting mainly of legal frameworks) contained in the book. The paper focuses on three areas. First, pollution laws – a case study is made of Singapore’s first generation clean air laws. Second, it surveys some initiatives taken in Asia on freshwater resources particularly in the Mekong River Basin. Finally, in biodiversity conservation it points out that many countries in Asia have ratified the Convention on Biological Diversity and have drafted or are in the process of drafting national biodiversity action plans under the Convention.

*The paper concludes that the first generation environmental laws in Asia have developed unevenly. Some countries in Asia have only recently embarked on drafting environmental legal frameworks while others have embarked on the second generation of environmental laws (see Nicholas Robinson, “Challenges Confronting the Progressive Development of a Second Generation of Environmental Law”, infra).*

I consider it a great honour to address a group of environmental experts at this symposium and launch of the book *Capacity Building for Environmental Law in the Asian and Pacific Region: Approaches and Resources*.<sup>1</sup> Nick and I would like to thank Donna for undertaking the lead responsibility to prepare the book for publication, and for her tremendous intellectual input in this effort.

I would also like to thank my two co-editors, Professor Donna Craig and Professor Nick Robinson for giving me this opportunity to tell you about the book on the occasion of its launch. In writing this paper, I have drawn my sources from the book; I have also done further research. This is what was intended – for a researcher (or a teacher) to build upon the materials in the book. In any case, environmental law in Asia as well in other parts of the world is one of the most dynamic areas of law, and constant updates are necessary.

## I. The “ADB” book on capacity building in environmental law: A word on the launch

Some, if not all of you, may know why IUCN has included Tokyo as one of the five cities for the launch of the book – the others are Washington, Singapore, Bonn and Lahore. The Japan Special Fund, financed by Japan’s Ministry of Finance, Tokyo, and administered by the Asian Development Bank, provided a US\$600,000 grant to help finance two capacity building

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<sup>1</sup> Donna G. Craig, Nicholas A. Robinson and Koh Kheng-Lian (eds.) *Capacity Building for Environmental Law in the Asian and Pacific Region: Approaches and Resources*, Vols I & II (Asian Development Bank, 2002)

courses for "Training the Trainers", held in Singapore in 1997 and 1998, and also the preparation of the manuscript of this book, which was developed from the materials used in the training project.

On behalf of the other editors of this book and also on behalf of the organizations that we represent – IUCN, APCEL and UNEP – I would like to thank the Japan Foundation and the ADB. There are others too numerous to mention (over 200 individuals and organizations including the authors of the materials in the book) which made this publication possible. But I would like to mention the Law Faculty of the National University of Singapore, which co-financed the project "in kind". We would also like to thank Mr John Boyd, formerly of ADB for seeing the project through. Others included are Dr Parvez Hassan who, as former Chair of IUCN Commission on Environmental Law conceived the "training the trainers" project and Dr Kazi Jalal (formerly of ADB) who bought his idea. Thanks are also due to Singapore's Ambassador Tommy Koh and to our former Dean of the Faculty of Law, Assoc. Prof. Chin Tet Yung, who, together with IUCN-CEL, were instrumental in the establishment of the Asia Pacific Centre of Environmental Law (APCEL) in the Faculty of Law, National University of Singapore. APCEL hosted the two training courses, known as the IUCN/APCEL/UNEP Course on Capacity Building for Environmental Legal Education in the Asia and Pacific Region. These "training the trainers" programmes and the ADB book in part fulfilled the vital call from Agenda 21 to build capacity in environmental law. Paragraph 8.2 of the Agenda called for the provision of better facilities in educational institutions for postgraduate and in-service training in environmental and development law.

This occasion ushers in the second generation of capacity building in Asia, as this Symposium focuses on some aspects of the second generation laws in this region. The Johannesburg Plan of Implementation 2002 reaffirmed the responsibility of governments and called upon the United Nations to adopt a Decade of Education for Sustainable Development.

The ADB book contains materials on some of the first as well as second generation laws at the national, regional and international levels: for example, chapter 4 "National Implementation of Environmental Law"; chapter 7 "Pollution Law, Integrated Management Systems and Transboundary Movement of Hazardous Wastes"; chapter 12 "Sustainable Use of Freshwater Systems and Dams; chapter 13 "Sustainable Use of Forests and Fisheries"; chapter 15 "Cultural and Natural Heritage". The regional aspects are discussed in chapter 16 "Regional Environmental Law Cooperation: ASEAN and Others". Some aspects of international environmental law which are included are marine environmental law (chapter 18), trade and environment (chapter 19), biological diversity (chapter 20), protecting of the ozone layer (chapter 21) and climate change (chapter 22). Other chapters in the book (24 altogether) are related to the first generation environmental laws in terms of processes such as environmental impact assessment and planning (chapter 9), citizen participation, access to decision making and empowerment (chapter 10), judicial decisions and alternative dispute resolution (chapter 11), to mention but a few.

The book underlines the importance of comparative studies. Case studies from the various countries show the importance of sharing experiences. Thus, chapter 5 "Comparative Overview of Asian and Pacific Environmental Law" draws a wide range of themes for case studies from Singapore, Vietnam, Brunei, Cambodia, Thailand, Indonesia, Pakistan, Japan, China and others. Earlier on in the book, in chapter 2 "Jurisdiction: The Principles, Ethics and Foundations" Prof. Nick Robinson in his article "Comparative Environmental Law: Evaluating How Legal Systems Address Sustainable Development" argued that comparative studies are fundamentally important for the understanding of existing environmental law and how sustainable development principles can be advanced. The case studies in chapter 5 demonstrate the dynamism of the first generation of environmental laws, which have been and are still developing at a tremendous rate. Many countries in Asia have ratified not only the conventions emanating from Rio, namely, the

Convention on Biological Diversity 1992 and the Framework Convention on Climate Change, 1992, but are also in the process of implementing Agenda 21 and incorporating the principles of the Rio Declaration. In addition, some of them have also ratified or are in the process of ratifying other pre-1992 conventions and other negotiated instruments such as UNESCO's (United Nations Educational, Scientific, and Cultural Organization) Man and Biosphere Programme and other laws relating to biological diversity, pollution control, hazardous waste and other areas relating to the protection of the environment. At the same time a number of countries in Asia are updating their national laws relating to the environment.

## II. "First generation" of environmental laws in Asia

The phrase "first generation" may mean different things to different people. For the purpose of this paper, the phrase "first generation" of environmental laws refers to a traditional and, at times, a first attempt at formulating environmental laws to meet the needs of each country in dealing with environmental problems, particularly those brought about by industrialization and urbanization soon after the second world war when nations were engaged in intensive economic developments. These environmental laws were very rudimentary. When they are being updated and refined to take into consideration current developments they move into the "second generation". Thus, this Symposium will consider some refinements in the energy sector, "Reforms to the Energy Law Agenda to Implement the Kyoto Protocol".

From Stockholm to Rio and then Johannesburg, a plethora of international negotiated instruments on environmental laws have entered the world scene. Some of these are very sophisticated – for example, the Convention on Biological Diversity and the Ramsar Convention introduced novel and sophisticated concepts of conservation with an equally new concept of "sustainable development". The implementation of these conventions also goes beyond the traditional approach in order to attain sustainability. It calls, for example, for an "ecosystem approach" or "beyond parks" approach in the context of biodiversity (see my paper at this Symposium, "Regional Biodiversity Collaboration – The ASEAN Approach" in the Panel Discussion "Case Studies on Biodiversity Laws: Beyond Establishing Parks"). Such conventions can be regarded as "second generation" laws as they focus on the "people" aspects of the interaction between environment and humanity. This is particularly important, as the alleviation of poverty is one of the cornerstones of "sustainability". Even as some global conventions have entered into the "second generation", the countries in Asia have not caught up with the "second generation" implementation. As will be demonstrated in this paper, many countries in Asia are still at the initial stage of formulating "frameworks" or policies in their attempt at implementation of, say, the Convention on Biological Diversity (see *infra*). In contradistinction to "first generation" environmental laws, I would also include as "second generation", soil remediation (a topic to be discussed at this Symposium). This is because it is part of an ecosystem approach, not realized until recent times.

The "first generation" environmental laws in Asia (as in many other parts of the developing world) are typified mainly by the laws relating to pollution (air and water), and conservation of nature and biodiversity (the degradation of the environment and its natural resources through unsustainable use). Some of the Asian countries have, according to the principle of common but differentiated responsibilities, implemented global conventions and plans of action pertaining to these areas.<sup>2</sup> In the case of the subregions in Asia such as SACEP (South

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<sup>2</sup> IGES, *Regional/Subregional Environmental Cooperation in Asia* (IGES: February 2001); Koh and Robinson, "Regional Environmental Governance: Examining the Association of Southeast Asian Nations (ASEAN) Model" in Daniel C. Esty and Maria H. Ivanova, (Eds.) *Global Environmental Governance: Options and Opportunities* (Yale School of Forestry and Environmental Studies: 2002). [www.yale.edu/environment/publications/geg/geg.html](http://www.yale.edu/environment/publications/geg/geg.html)

Asia Cooperative Environment Programme – comprising eight countries in South Asia, namely, Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Sri Lanka and Pakistan), NEASPEC (North-East Asian Sub-Regional Programme on Environmental Cooperation – comprising six countries namely, China, Democratic People’s Republic of Korea, Japan, Mongolia, Republic of Korea and the Russian Federation) and ASEAN (Association of South-East Asian Nations – comprising ten countries in East Asia, namely, Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam), they have in varying degrees responded to some international conventions and Agenda 21. For example, the SACEP countries adopted the Malé Declaration on Control and Prevention of Air Pollution and its Likely Effects for South Asia, 1998. NEASPEC has in place a project on energy and air pollution. ASEAN, being the oldest of the subregional organizations, has a comprehensive environmental law programme covering many areas. Also, its nature conservation programmes are being refined and are entering into the “second generation” phase (see Koh Kheng-Lian, “Regional Biodiversity Collaboration – The ASEAN Approach”, 2002). Global multilateral agreements and strategies can be filtered down to the national level through these subregional organizations.

I would now like to focus on just three aspects of law under the first generation: pollution (clean air), freshwater resources, and biodiversity as these are some of the main priority areas in Asia.

## 1. Pollution laws

Many of the states in Asia have sectoral laws on pollution but many of these are inadequate and outdated. Some states such as Japan, the Philippines, Singapore, Sri Lanka and Thailand have enacted modern laws and are seeking the most effective means of implementation and harmonization with framework environmental laws and international conventions such as the Basel Convention. These laws are discussed in Chapter 7 of the book with contributions from various endogenous writers from these countries.

Nomura’s extract from the “History, Structure and Characteristics of Japan’s Environmental Law” (reproduced in chapter 5 of the book) points out that Japan, a highly industrialized country, has developed sophisticated laws on pollution. Nomura traced the shift from separate laws to basic framework law. He said:<sup>3</sup>

“The increase in industrial pollution seriously damaged the health of affected residents. The government’s approach of enacting individual laws to deal with each [form of] pollution could not keep up with the spread of more serious problems. In the face of mounting calls for the establishment of a philosophy to prevent pollution, the government enacted the Basic Laws for Environmental Control in 1967.”

The 1970s were marked by many law suits on pollution and the Minamata disease, the *itai-itai* disease and other new types of pollution-related problems, such as cadmium-contaminated rice became a major issue and many new laws were enacted and old laws updated. Japan also moved ahead in its environmental laws in the run-up to UNCED in 1992. In July 1992, the Central Council for Environmental Pollution Control and Nature Conservation Council deliberated on a basic legal framework for the preservation of the environment. On 12 November 1993 the Basic Environmental Law was passed. One of the aims of the Basic Environmental Law was to incorporate the principles set out in Rio. I leave the subsequent progress of clean air laws for you to read on in the book.

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<sup>3</sup> *Supra*, note 1, Vol 1, 286 at 287.

## **2. Clean Air Laws: Case Study of Singapore**

The ADB book makes a case study of Singapore's clean air laws as it experienced the twin developments of rapid industrialization and urbanization from the 1960s to the end of 1990s. Today, its air quality standards meet those of the US Environmental Protection Agency and the emission standards are within the limits of the World Health Organization. In chapter 7, Assoc. Prof. Lye Lin-Heng in "Singapore's New Environmental Law: The Environmental Pollution Control Act 1999" discusses the consolidation of the various laws relating to pollution control in Singapore, including air and toxic and hazardous substances.

Apart from local sources of pollutants, Singapore has had in recent times to deal with transboundary haze pollution from Indonesia. It has also to co-operate with international efforts in addressing global concerns relating to depletion of the ozone layer through greenhouse gases and global warming due to climate change. Thus, its clean air laws encompass not only the local laws (which are very comprehensive) but also the ASEAN (it adopted the recent ASEAN Agreement on Transboundary Haze Pollution 2002) and, at the international level it ratified the Climate Change Convention in 1997; in 1989 it acceded to the Vienna Convention on the Protection of the Ozone Layer, and the Montreal Protocol on Substances that Deplete the Ozone Layer. In the year 2000, Singapore also ratified other global instruments relating to clean air; control, production, use, trade and disposal of substances relating to persistent organic pollutants (Stockholm Convention on Persistent Organic Pollutants, 2001); and "prior informed consent". Singapore participated in the conference which led to the Rotterdam Convention on Prior Informed Consent, 2000, and signed the final Act. However it has yet to be ratified.

For effective implementation, Singapore recently restructured its Ministry of the Environment – a new statutory board was established on 1 July 2002. The National Environment Agency was established to give it flexibility to strengthen partnerships with the people, private and public ("3 Ps") sectors. This would not have been possible if it was part of the Ministry of the Environment, as a governmental institution is perceived to lay down policies, strategies and regulate laws and may not, at least to the three "Ps", be seen to work too closely with them. This is at least the perception in Singapore. A last word on the first generation air pollution laws in Singapore: in its latest Singapore Green Plan (SGP) 2012, it has proposed a number of initiatives which aim at realizing its vision of "a global city with an environment comparable to the best in the world". The second generation of air pollution laws will address the problems outlined in the SGP 2012.<sup>4</sup>

I would also like to say a few words about Singapore's urban air pollution brought about mainly by vehicles, as this is a problem faced by many countries in the world including Japan. A comparative approach will provide useful comparisons. With an ever-growing vehicle population, which now reaches over 700,000, Singapore has, over a period of time, adopted a multi-pronged approach to curb its vehicular population. The measures include taxation (which applies "the polluter pays" principle to its fullest extent) and other controls. A first of its kind, now world-renowned requirement is a Certificate of Entitlement (COE) before a purchaser can buy a vehicle. A COE is purchased through a bidding system, which is conducted on a monthly basis. Depending on the category of vehicles, a COE can cost from, say, S\$30,000 to over S\$60,000 for a car over 6000cc. There are other tax measures such as the Electronic Road Pricing (ERP) system aimed at restricting the use of vehicles. Yet other measures include a combination of traffic management such as establishing mass rapid

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<sup>4</sup> See Koh Kheng-Lian, "A Singapore Case Study: Cleaning Up Air Pollution in a Generation", paper presented at the World Summit on Sustainable Development – Side Event: Parliamentarians for Global Action – Parliamentary Workshops on Clean Air and Clean Water, 29 August 2002, Johannesburg. <http://law.nus.edu.sg/apcel/>

transport, encouraging car pools, improving road infrastructure, encouraging use of alternative fuels and phasing out old cars. Also, to reduce vehicular pollutants, there is the strategy of decentralization to get people to live nearer their place of work.<sup>5</sup>

Apart from these, there are the end-of-tailpipe controls and standards. Emission standards for vehicles were introduced in 1991. In diesel-driven motor vehicles, the standard for exhaust emissions for such vehicles registered for the first time on or after 1 January 1991 must comply with the standard for exhaust emissions in ECE Regulation 24.03 annexed to the above-mentioned United Nations Agreement (rule 38m (1) of the above Rules). Rule 41 provides that every motor vehicle (other than a motorcycle powered by a four-stroke petrol engine) registered on or after 1 March 1972 must be so constructed or equipped with a device such as to prevent the escape of gas from the crankcase. In the case of motorcycles and scooters registered on or after 1 October 1991, the standard for exhaust emissions is that specified in the United States Code of Federal Regulations (40 CFR 86, 410-80).

The standard for exhaust emissions has been gradually regulated since 1986. Under the Road Traffic (Motor vehicles, Construction and Use) Rules, rule 35 (as amended, GN S 316/92) provided that all petrol-driven motor vehicles registered for the first time on 1 July 1992 must comply with the standard for exhaust emissions specified in ECE Regulation 83 annexed to the United Nations Agreement Concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Vehicle Equipment and parts, or the Japan Safety Regulations for road vehicles, Article 31. Over the years, emission standards have been tightened to keep up with new vehicle technology. As at 1 January 2001, the emission standards of petrol-driven and diesel-driven cars have to comply with the Euro II standards.<sup>6</sup>

There is also mandatory periodic inspection of vehicles to ensure emission standards are complied with, and to monitor the efficacy of catalytic converters.

Lead concentration in petrol has been progressively lowered since 1980 to the current level of 0.15 GM per litre of petrol and leaded petrol was phased out on 1 July 1998. Currently, all petrol-driven motor vehicles to be registered must be capable of running on unleaded petrol.

On 1 March 1999 the sulphur content in diesel was reduced from 0.3% to 0.05%. Subsequently, the Euro emission standards were introduced on 1 January 2001.

In 1999, rebates to encourage the use of compressed natural gas (CNG) vehicles were introduced. These rebates ranging from between 5% and 20% of the vehicle’s Open Market Value (OMV) for buses and passenger cars (including taxis) can be used to offset fees and taxes payable on registration. In addition, there will be a rebate of 20% on road tax. The first CNG refuelling station opened for business on 22 April 2002.<sup>7</sup> A pilot project to use CNG buses in the Jurong industrial area will be put in place by end of December 2002.

Singapore is gearing into the second generation of energy efficiency as a National Energy Efficiency Committee was established to deal with more efficient sources of energy.<sup>8</sup>

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<sup>5</sup> See Lye Lin-Heng, “Environmental Taxation in the Regulation of Traffic and the Control of Vehicular pollution in Singapore” paper presented at the Third Annual Global Conference on Environmental Taxation, 13 April 2002, Vermont, USA.

<sup>6</sup> Environmental Pollution Control (Vehicular Emissions) Regulations, S219/99, Reg. 6 2001 Rev. Ed. amended S 554/2000, S 238/2003.

<sup>7</sup> See Lye Lin-Heng, *supra*.

<sup>8</sup> The Singapore Green Plan, 2012 at: [www.env.gov.sg/sgp2012](http://www.env.gov.sg/sgp2012)

### **3. Freshwater – some initiatives in Asia**

It cannot be gainsaid that water is vital to life as it serves regulation, habitat, production and information functions. At Rio, water was not the top priority issue although chapter 18 of Agenda 21 (one of the outputs of Rio) deals with the protection of the quality and supply of freshwater resources. The chapter promotes integrated water resources management based on the fact that water is an integral part of the ecosystem, a natural resource, and a social and economic good. Chapter 18 makes provision for seven programme areas, namely,

- Integrated water resources development and management
- Water resources assessment
- Protection of water resources, water quality and aquatic ecosystems
- Drinking-water supply and sanitation
- Water and sustainable urban development
- Water for sustainable food production and rural development
- Impacts of climate change on water resources

The national reports submitted to the United Nations from Asian countries on chapter 18 of Agenda 21 show an uneven implementation of freshwater resources in these countries. China has put in place much of the organizational framework, with the Ministry of Water Resources responsible for the overall water resources planning and management. It has also formulated objectives which are: to implement the policy of rational exploration, utilization, and comprehensive conservation of water, to strengthen the management of river basins and lakes, to improve the management of and control of water pollution, and to maintain and improve the natural utility of water resources and the ecological environment of basins. Its Ninth Five-Year Plan (1996–2000) includes flood control, irrigation efficiency, drinking water, wastewater treatment, establishing integrated water resources management, and solving drinking water problems for some poor rural areas.

Viet Nam's report on the other hand showed that it had hardly implemented chapter 18 of Agenda 21 and most of the questions asked for in the report had a "no information available" response from Vietnam. However, in 1989 it ratified the Ramsar Convention on Wetlands. It is in the process of preparing a law on the protection of underground water. It has two Ramsar sites – Con Lu-Con Hgan area and the Red River Delta wetlands. The Asian Development Bank has funded a capacity building project in the water resources sector in Viet Nam including a management plan of the Red River Delta. Water Environment International (WEI) has also provided technical assistance in a study of land use and water management issues in the Red River Basin. The project also includes a study of future and rural water demand, ground-water development and the role of water in poverty alleviation.

In the introduction to chapter 18 of Agenda 21 on freshwater resources, it is stated in paragraph 18.4 of Agenda 21 that transboundary water resources and their use are of great importance to riparian states. The paragraph points out the importance of co-operation among riparian states to enter into agreements taking into account the interests of these states. A recent example of such co-operation is the Mekong River Commission which was established by the four countries in the lower Mekong Basin, namely, Cambodia, Lao PDR, Thailand and Viet Nam in 1995 by the Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin. The text of the agreement is contained in the ADB book, chapter 12 ("Sustainable Use of Fresh Water Systems and Dams"). The vision for the Mekong River Basin is: "An economically prosperous, socially just and environmentally sound river basin." The main provisions of the Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin, 5 April 1995, are:

- **Parties** – Cambodia, Lao PDR, Thailand and Viet Nam
- **Chapter 1:** Preamble

- “Recognising that the Mekong River Basin and the related natural resources and environment are natural assets of immense value to all the riparian countries for the economic and social well-being and living standards of their peoples”
- **Objectives and principles of cooperation**
  - Areas of cooperation: irrigation, hydropower, navigation, flood control, fisheries, timber flooding, recreation and tourism. To optimize multiple use and mutual benefits of all riparians, to minimize harmful effects
  - Prevent wasteful use of waters
  - Protection of the environment and ecological balance: protect environment, natural resources, aquatic life and conditions
- **Reasonable and equitable utilization**
  - To utilize the waters of the Mekong River Basin in a reasonable and equitable manner in their respective territories (e.g. tributaries of the Mekong river including Tonle Sap)
- **Maintenance of flows on the mainstream**
  - To cooperate in the maintenance of the flows of the main streams from diversion, etc
- **Prevention and cessation of harmful effects**
  - Where one or more states are causing substantive damage to one or more riparians from the use of and discharge to waters of the Mekong River, the states shall cease immediately the alleged cause of harm until such cause of harm is determined
- **Emergency situations**
  - A party to the Agreement must notify and consult with the party/parties concerned in water quantity or quality problems constituting an emergency. Appropriate remedial action must be taken.

An international counterpart of the uses of rivers is the Convention on the Law of Non-Navigational Uses of International Watercourses, 1997, contained in the book. It has not entered into force but may provide guidelines in relevant contexts. As in the River Mekong Basin Agreement, it lays down certain principles relating to the duty to cooperate, prior consultation, duty not to cause significant harm to other states, and the equitable utilization of water resources. Many of the principles in the River Mekong Agreement and the Convention on Non-Navigational Uses of International Watercourses can be found in other regional and international initiatives such as the Dublin Principles (formulated at the International Conference on Water and Environment, 1992; the Water Policy of the ADB, 1996; and the more recent World Commission on Dams Report, 2000, and the framework formulated by the Second World Water Forum, in Hague; and the International Conference on Freshwater in Bonn, 2001).

What is the future of the water issue in the second generation? At Johannesburg, the delegates agreed that shortage of water was one of the likely causes for future conflict. Indeed, the current bilateral talks between Singapore and Malaysia show how sensitive the water issue can be on the sale of water (raw and treated) between Singapore and Malaysia, and how this can spill into other areas. Under two water agreements between Malaysia and Singapore, Malaysia sells raw water to Singapore, which in turn sells treated water to Malaysia. The current controversy is over the price of water.<sup>9</sup> Water will feature prominently in Asia and the rest of the world in the second generation of environmental laws. A recent article by Barry James, “Water scarcity a time bomb for global food

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<sup>9</sup> *The Straits Times*, 18 October 2002; Koh Kheng-Lian “Institutional Cooperation Relating to Water Resources – the Singapore Experience”, chapter 12, ADB book.

supplies”<sup>10</sup> pointing out the report of the International Food Policy Research Institute and International Water Management Institute, noted the scarcity of freshwater supplies all over the world. For example, “key aquifers in Northern India, West Asia and North Africa will begin to fail within eight years.” According to the writer,

“Last year, the Chinese authorities reported that the water table had fallen by up to 6m in a single year in parts of northern China plain. Most of the lakes in the region have dried up, and the World Bank says that wells drilled around Beijing have to reach more than 800m to tap fresh water. There will be catastrophic consequences for future generations unless water use and supply can be brought into balance.”

Water initiatives by international and regional inter-governmental and other organizations are already in existence. For example, the ADB has published the *Water Policy of the Asian Development Bank* (2001); ASEAN has also recently included a water conservation programme in its ASEAN Working Group on Nature Conservation and Biodiversity (AWGNCB) agenda (at the eleventh meeting of AWGNCB, 2001); the IUCN has published *A Vision for Water and Nature: A World Strategy for Conservation and Sustainable Management of Water Resources in the 21st Century* (2000). However, there is no framework multilateral treaty in force that deals with the conservation and management of water resources. These bodies of research can form the basis for further initiatives to understand the freshwater ecosystems.

#### 4. Biodiversity conservation

Asia is rich in biological resources and the livelihood of its peoples by and large are dependent on these resources to supply them with goods and services. Many of the countries in Asia have ratified the Convention on Biological Diversity 1992, and also other conventions relating to biodiversity such as the Ramsar Convention. I will say a few words on biodiversity planning in Asia under article 6 of the CBD, which calls upon countries to prepare national biodiversity strategies and action plans (NBSAPs). Many countries in Asia have ratified the CBD except for a few, which includes Thailand. The extent of implementation by these states has been uneven. A brief sampling of NBSAPs in some of the countries in Asia is as follows:<sup>11</sup>

- China: ratified CBD. NBSAP completed and approved in 1993.
- India: ratified CBD. NBSAP being finalized.
- Indonesia: ratified CBD. Completed a NBSAP in 1991; a second plan is in preparation (2001).
- Myanmar: Acceded to CBD. National Environmental Policy 1997.
- Philippines: ratified CBD. NBSAP completed and approved in 1997.
- Singapore: ratified CBD. NBSAP contained mainly in (a) The Singapore Green Plan; Towards a Model Green City (1992), which sets out the policy and strategic directions for nature conservation and other aspects of biodiversity; (b) SGP Action programmes (1993); and (c) SGP Workgroup 5, Nature Conservation (1993) and (d) SGP 2012 – Beyond Clean and Green – Towards Environmental Sustainability. See First National Report under the Convention on Biological Diversity, 1997 (NParks).
- Thailand: Has not ratified CBD but completed and approved a national biodiversity policy in 1997.
- Viet Nam: ratified CBD. Completed NBSAP in 1995, and reviewed in 1998.

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<sup>10</sup> *The Straits Times*, 18 October 2002.

<sup>11</sup> Jeremy Carew-Reid, (ed.) *Biodiversity Planning in Asia* (IUCN, 2002).

A new publication entitled, *Biodiversity Planning in Asia*, edited by Jeremy Carew-Reid has recently been published by IUCN, Regional Biodiversity Programme – Asia (Sri Lanka, 2002). It is the proceedings of a conference held in Colombo, Sri Lanka, in October 1999. This book will supplement the ADB book, chapter 20, Biological Diversity.

An evaluation of the experiences in the drafting of NBSAPs in Asia as given by the Asian countries at the conference is set forth below:

- Consultative process not adequate – does not involve all major stakeholders. Skills, knowledge and methods not well developed; restricted by time and funding (Time 9–18 months); little feedback – public does not know why recommendations not accepted; need to bring in scientific community; top down and bottom up – effective feedback;
- Information on biodiversity status, threats and trends: NBSAPs prepared with incomplete information. Should tap more traditional knowledge, existing records, libraries, registry of biodiversity experts, database (ARCBC), strengthen info-gathering process;
- Integration with economics: not incorporated in the NBSAP in systematic way – must use economic valuation methods to demonstrate importance of biodiversity resources. Best practices to reduce negative impacts;
- Setting priorities – political process involving value judgments and choices:
  - Identification of biodiversity regions and identification of those in need of conservation action
  - Identification of biodiversity hotspots (develop criteria), and an assessment of those most in need of conservation action, identify species of special concern
  - Implementation mechanisms and structures: institutional capacity of implementing institutions not adequately assessed (proposed policies and commitments in NBSAPs are frequently overly ambitious and beyond the capacities of sectoral and local agencies – not certain how to be involved)
  - Best practices : biodiversity should be managed as a process
  - Effective coordination of all ministries and agencies, etc
- Communications: little effort made to raise awareness of the process and substance of a plan. NBSAP has low profile, and many in government remain unaware of their importance and implications. Many have not understood it. Should reach out through various media – zoos, museums and botanical gardens can help to communicate biodiversity concerns. Sensitization workshops should be held for policy-makers, judges, administrators, etc. national education curricula (with reference to NBSAPs, eg in Sri Lanka);
- Transboundary strategies: Shared riverine, mountain, forest and coastal ecosystems require greater cooperative regional action;
- Aligning NBSAPs to global and regional agreements and negotiated texts;
- Legal frameworks – little attention given to need for regular review and revision in legislation;
- Information sharing and exchange (within a country and between different countries); and
- Monitoring and assessment: neglected. Lack of monitoring and feedback mechanisms; implementation is a fatal flaw in current NBSAPs. Governments/agencies do not know whether there is implementation on a systematic basis.

The countries in Asia have also proceeded unevenly in the ratification of other biodiversity conventions. To assist biodiversity planning in Asia, the Biodiversity Planning Support Programme was implemented by the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP), co-financed by GEF and some countries.<sup>12</sup> In addition, there is an IUCN Regional Biodiversity Programme, Asia, established in 1996, which has assisted 14 countries in the following thematic areas; Biodiversity Strategies and Action Plans (BSAPs); identification and monitoring of biodiversity; *in-situ* conservation; access to genetic resources and benefit sharing; economics of biodiversity; bio-safety; and CBD processes.<sup>13</sup>

### III. Conclusion

The first generation environmental laws in Asia have developed unevenly. Some countries have only recently embarked on drafting first generation legal frameworks whilst others like Japan, Philippines and Singapore are going into the second generation in some areas. It is a brave new world of environmental laws and much is needed in capacity building to prepare for the second generation. The ADB book provides us with the basis for first generation and introduces us to some aspects of the second generation. What attributes are needed for the second generation will be considered by Prof. Nick Robinson in his paper, “Challenges confronting the progressive development of a second generation of environmental laws”.

I would like to end by bringing some good news, which augurs well for the second generation. Tony Oposa (of the Oposa case, contained in the ADB book) has succeeded in getting the Philippine court to direct twelve Government agencies to “make Manila Bay ‘swimmable’ again”.<sup>14</sup> He is one of those who, having built capacity in environmental law, has gone on to apply it to good causes through advocacy. This is a triumph not only for him but also for the enlightened judiciary. It is, indeed, a triumph for all of us who care for the environment and for future generations.

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<sup>12</sup> [www.undp.org/bpsp](http://www.undp.org/bpsp)

<sup>13</sup> See [www.rbn-iucn.lk](http://www.rbn-iucn.lk)

<sup>14</sup> “Make Manila Bay ‘Swimmable’ Again”, *Manila Times*, 3 October 2002.

# Challenges confronting the progressive development of a second generation of environmental laws

Nicholas A. Robinson\*

*Environmental Law as a new field of law is well established and rapidly evolving. In order to attain the global goal of sustainable development, we need to realize the first generation of environmental laws, while we fashion and apply the next generation.*

*This paper identifies five phases in the gradual evolution of the first generation of environmental laws and reflects on what will be entailed in the second generation of environmental law. It suggests the following seven attributes for the second generation of environmental law: 1. Fundamental values and environmental ethical norms should be the foundation for environmental law at all levels; 2. Environmental law is a network of legal relationships, and therefore a continuum of laws is essential to reflect the “laws of nature”; 3. Environmental law is a partnership between law and science, and therefore should be built on a scientific foundation; 4. Norms and legal tools should be applied across many sectors, as matrix systems permeate the field of environmental law; 5. Cultural traditions of each society must be respected; 6. Systems should be established to eliminate waste; and 7. New and practical social patterns should be designed for the stewardship of our shared environment.*

Establishing “Environmental Law” as a new field of law has not been easy, and the task is not yet complete. At the time of the United Nations Conference on the Human Environment in Stockholm, in 1972, we debated whether there even was or could be a field of law known by this name. There remain many who do not understand that environmental law is a fundamental prerequisite to “sustainable development”. Some mistakenly see this discipline as a hindrance to their economic interests. Nonetheless, as the Asian Development Bank (ADB), UN Environment Programme (UNEP) and the Environmental Law Programme of IUCN – The World Conservation Union, have demonstrated in their multi-year project on “Capacity Building for Environmental Law at the University Level in Asia and the Pacific”, the field of Environmental Law is well established and rapidly evolving.

The first century of making environmental law can be traced to the early nature conservation laws of the decades of the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, drawing on the antecedent customary and traditional rules about natural resources that are found in every society. The second half of the 20<sup>th</sup> century witnessed the self-conscious adoption of environmental laws, and the consensus that a new field of law had come into being at both national and international levels. These laws are the subject of the Asian Development Bank’s two volumes on *Capacity Building for Environmental Law in the Asian and Pacific Region: Approaches and Resources*. Prof. Koh Kheng-Lian has ably described this work as a consolidation of the “first generation” of environmental laws, and in presenting the books today, Prof. Donna Craig has rightly remarked about how Asia and the Pacific have taken a leading position internationally in the definition of this new field of law. Our books’ compilation is a tribute to many:

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\* Chair, IUCN Commission on Environmental Law and Gilbert & Kerlin Distinguished Professor of Environmental Law, Pace University School of Law (New York).

- (a) The nearly 100 professors from Asia and the Pacific Regions who met to refine a curriculum and teaching techniques for this field of law at the IUCN/ADB/UNEP courses held at the National University of Singapore’s Faculty of Law. The books reflect their contributions and thinking.
- (b) The foresight and – dare we say – courage of the Asian Development Bank in underwriting the innovative work that this project and the books represent. It was a distinct honour for Prof. Koh to present these books to the ADB President in Manila, and for Prof. Craig to present the books to the Director of the ADB’s Environment Division in Bonn, Germany. We must acknowledge, most gratefully, the extraordinary record of consistent and essential financial support that Japan has contributed to the ADB, for without that support, projects such as ours could not have been sustained.
- (c) The contributions over time of the UN University, UNEP, and dozens of other institutions, universities, and individuals around the world are acknowledged in the books, and demonstrate that this work constitutes a broad collaborative and co-operative effort. In this regard, the role of the Office of the General Counsel of the ADB must be acknowledged. Lawyers understood the need for this sort of basic reference set, and it was a distinct honour to have the understanding and quiet support of the General Counsel of the ADB throughout our work. A special word of thanks to John Boyd, Esq., formerly of that office, is well deserved.

Even though many nations around the world have not yet fully established their “first generation” of environmental laws, as represented by the legal frameworks described in these volumes, it is timely to reflect on what will be entailed in the “second generation” of environmental laws. IUCN chose to do so in Japan, because as one of the world’s leading nations, the wisdom and insights of Japanese legal experts will be essential to defining the content and shape of the next generation of environmental laws.

Studies such as the report entitled “Legal Principles and Guidelines for Conservation and Sustainable Use of Living Resources”, (30 June 2002) of the Biodiversity Working Group under the Japan Center of International and Comparative Environmental Law, are most important, as are the multi-disciplinary studies of the Institute for Global Environmental Strategies (IGES). IUCN considers the leading studies of IGES to be most important in shaping the next generation of environmental laws.

The first generation of environmental laws has evolved gradually. If our societies are to be successful in meeting the challenges of our climate modifications on Earth and our growth in our world’s human population, then the next generation must be shaped rather more rapidly, deliberately, and effectively. Consider the steps we have taken to shape the first generation of environmental laws around the world. The rapid progression of environmental law has been uneven, geographically and substantively. This is to be expected. Yet because the promulgation of environmental laws tend to follow similar patterns in all jurisdictions, one can anticipate how the law is emerging and thus the types of legal questions that come to courts at each phase of its development. Five phases have been identified: (1) the period when traditional rules, such as the law of torts or delicts, or the Roman law’s public trust doctrine, are employed to decide environmental matters; (2) as natural resource depletion becomes extreme, the conservation laws are adopted, to restore and ensure the sustained yield of renewable resources; (3) as agricultural, chemical and industrial pollution become acute, environmental laws are enacted to abate pollution; (4) as this body of statutes, treaties, and legal practices grow, the complexity of the field confounds governments, courts and the public, and efforts are made to recodify and streamline the field of environmental law – for instance many States have enacted framework legislation or

procedures that cut across all sectors such as environmental impact assessment rules; and (5) finally, in an effort perhaps to refine the field and emphasize the underlying principles of justice, States are amending their constitutions to provide their citizens with a basic environmental right, and to include environmental rights in charters of human rights.

This work has been remarkable, but the environmental problems around the world grow ever more acute. Environmental law's experience to date must be viewed as a prelude to a more effective, second generational phase of designing laws for ensuring sustainable development. The need *urgently* to develop and apply environmental law to build sustainable development is a central recommendation of Chapter 8 in Agenda 21 (1992). The continued urgency of this task was underscored at the recent World Summit on Sustainable Development (WSSD) in Johannesburg, South Africa. The Johannesburg Declaration on Sustainable Development assumed "a collective responsibility to advance and strengthen the interdependent and mutually reinforcing pillars of sustainable development – economic development, social development and environmental protection – at local, national, regional and global levels".<sup>1</sup> While especially germane to environmental protection, environmental law has roles to play in advancing each of the three pillars. Beyond the Declaration, in the Johannesburg Plan of Implementation (adopted on 4 September 2002) the WSSD makes clear that law has much to do. IUCN participated actively in the WSSD with its UN Observer delegation. The nations in Johannesburg urged stronger measures to advance the rule of law,<sup>2</sup> as essential to sustainable development. Strengthening institutional frameworks is "necessary for policy-making, coordination and implementation and enforcement of laws".<sup>3</sup> The importance of the courts was expressly emphasised in the WSSD Plan of Implementation, and the States recommended "providing necessary infrastructure and by promoting transparency, accountability and fair judicial institutions".<sup>4</sup> IUCN participated in UNEP's Global Judges' Symposium in Johannesburg on the eve of the WSSD, and last month convened regional Judges' symposia in London for Western Europe and in Kuwait for the Arab Region, in cooperation with UNEP.

In short, as the WSSD underscored, the need for capacity building at all levels to establish effective environmental laws is a high priority. It will be so for some years to come. Books like the ADB/APCEL/IUCN's two volumes on *Capacity Building for Environmental Law in the Asia and Pacific Region: Approaches and Resources* will be needed for every region of the Earth.

Yet, as we build and refine further this first generation of environmental laws, the growing complexity of environmental problems in Earth require us to do more. We need simultaneously to move to conceive the next – or second – generation of environmental laws.

The next generation of environmental laws must find constructive ways to adapt to climate change while enhancing the quality of life on Earth. These laws must help societies "mine" their own wasteful practices in order to find the new economic and social resources to ensure effective environmental protection. It is not a matter of needing more money, but it is matter of adapting social behaviour to arrest today's profligate practices. It is not merely a focus on new administrative rules, but rather on forging a new consensus on the environmental values and ethics that we share (and must share) if life on Earth is to be sustained in each of our societies.

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<sup>1</sup> Article 5 of the Declaration, A/CONF.199/L.6/Rev 2.

<sup>2</sup> Para. 121, unedited negotiating text of Plan, 4 Sept. 2002.

<sup>3</sup> *Ibid.*, Para. 145.

<sup>4</sup> *Ibid.*, Para. 146.

None of us can know with certainty the configuration of this second generation of environmental laws, but we do know the dynamics that will shape it. We learn these dynamics from the systems analysis we provide for understanding the first generation of environmental laws, as set forth in the two ADB volumes. The purpose of this Symposium is to probe some of these dynamics and envision elements of the second generation. We shall do so in the context of Japan's most important new law on soil remediation, for soil is the basic constituent of terrestrial biological life for humans, animals and plants. We shall do so with respect to our stewardship of biological diversity, and the capacity to manage bio-engineering to respect the evolutionary heritage of biota. We shall do so, most urgently, with respect to the legal reforms needed to implement the Kyoto Protocol and cope with implications of climate modification.

We each can envision elements about the content and patterns for the next generation of environmental laws. The new ideas and considered views of each region will be of great interest to those in other regions. We shall learn from the comparative analysis of each other's innovations. In order to prod our discussion, and set forth some topics by which we may reflect on the papers that you are about to hear, let me set forth several thoughts. Based on what we have learned from the development of environmental law to date, we can understand some of the aspects of environmental law that the next generation will encounter. May I be bold enough in our Symposium to describe seven attributes that the next generation of environmental law will need to consider as it confronts the challenge of global environmental change and deterioration in the conditions of ambient environmental quality around the Earth.

- I. **Fundamental values** will be ever more critical. Environmental ethical norms are a part of constitutions in many nations, and are set forth in the U.N.'s World Charter for Nature and in the Declaration of Rio de Janeiro on Environment and Development, and many other declarations. There is a need to see these ethical norms as the foundation for environmental law at all levels. To better understand these principles, there is a real need for a synthesis and restatement of them in a coherent statement, since they are interrelated. The draft Earth Charter, which Prof. Steven Rockefeller has ably compiled for the Earth Council, is an important such restatement that deserves our study and support. There will need to be a shared understanding of "our common but differentiated responsibilities" in the context of equity among all people, if stewardship of the natural environment is to be effective. As the WSSD's Johannesburg Plan of Implementation states: "We acknowledge the importance of ethics for sustainable development, and therefore we emphasise the need to consider ethics in the implementation of Agenda 21."<sup>5</sup> The next generation of environmental laws must more explicitly acknowledge that environmental ethics is its jurisprudential foundation.
- II. **A continuum of laws** is essential if environmental law is to reflect the "laws of nature". The environmental law of the village and hamlet is tied to the fate of the state and nation and region, and ultimately of the biosphere, and *vice versa*. Environmental law is neither just national or municipal law, nor international law. Rather, it is a network of legal relationships wherever human societies are functioning. It makes transparent our interdependence on the same ecosystems and other natural systems, across borders and continents. This is a unique shift in emphasis from the laws that are seen as solely national prerogatives or international agreements. The next generation of environmental laws must build the linkages

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<sup>5</sup> *Ibid.*, Para 5 bis.

between each level of government in this chain of stewardship for shared natural systems.

- III. **A scientific foundation** characterizes environmental laws. Unlike some legal fields, in which largely (if not purely) human norms are agreed upon by legislatures based on a wide spread of possible choices, in the field of environmental law it is the environmental and natural scientists that set forth the description of how a natural system works. Whether it is the Intergovernmental Panel on Climate Change (IPCC) or a local hydrologist describing conditions of eutrophication in a lake, the legal response must be grounded on the best scientific estimation of the ambient environmental conditions. Environmental law is truly a partnership between law and science, far more so than many today understand. Ralph Waldo Emerson, in his essay *Nature* (1830) envisioned this relationship. He observed that human stewardship of nature was constrained by the “discipline” of nature. Today, environmental catastrophes are frequent for those who have built on flood plains or are eroding steep slopes. The goal is to bring human laws into accord with what earlier pundits characterized as being in “harmony with nature”. The next generation of environmental laws must strengthen the development of an “Earth Systems Science” or a “Science of Sustainability”. Environmental science and law must be taught together, work together and be more consciously reinforcing.
- IV. **Matrix systems** permeate the field of environmental law. The same basic principles or legal tools can apply across many sectors, and many biomes or environmental regions. For instance, environmental impact assessment (EIA) procedures and public participation rules are essential elements of transport projects, agricultural and irrigation projects, housing projects, energy projects, and every other developmental activity. EIA applies to park and protected area management. EIA procedures must be used at local, state or provincial, national and international levels, and in each sector and level, EIAs need to observe the same procedural elements of detailed scientific analysis, public disclosure of the information and public comment, and the identification of ways to avoid or mitigate any adverse environmental impacts. The same matrix can be applied to measures to curb carbon dioxide emissions in order to meet the objectives of the Kyoto Protocol, or in order to ensure that habitats can be consistently maintained for migratory birds across several continents. The next generation of environmental laws needs to apply norms and tools holistically, or across sectors, and this will require re-educating the leaders of each sector to understand and use such tools. Environmental law exists in every sector and level, and is not the province of an environment ministry.
- V. **Cultural traditions** must be respected and built into the understanding of how each society will advance environmental norms in their laws. Nature is appreciated in the song and poetry, and art and foods and lives of each society. This diversity is a richness that must be sustained, and understood. By doing so, the implementation of environmental laws can be more rapid and more effective. Environmental stewardship is not a value imported from abroad, but cultivated within the traditions of each society. Laws, while informed by environmental sciences, need to be extensions of each society’s cultural valuing of nature. In this regard, it is not sufficient for natural resource economists to concentrate our focus on the “utility” value of nature systems; surely we benefit from these utility values, as when local wetlands recharge and help purify aquifers that provide potable local well water, or when remote mountain forests and watersheds contain snow and rain and thus prevent the flooding of rivers, as in a vast region such as the river basins in China. Even the enlightened self-interest of society in valuing the utility functions of nature is a

narrow utilitarian function, which those who do not enjoy the direct utility benefit may ignore at will. What none can ignore is a reverence for life, shared across all cultures, and the more specific cultural manifestation of such fundamental values. Cultural heritage can bring widespread adherence to environmental norms and laws, but we legal experts must help bring about this express integration in law of culture and nature.

- VI. **Waste is a waste**, and environmental law must establish the systems to eliminate waste and reuse or recycle all current waste products. A waste-free society is entirely possible from a technical perspective. New systems of economic life will be needed to identify economic externalities and their costs, and design legal systems that expose these costs and induce the redesign of processes and products to eliminate all waste. This would conserve energy and resources and use them sustainably. Such a goal is not fanciful, but rather essential. Environmental law needs targets and timetables to implement this reform across all human activity.
- VII. **Stewardship of our shared environment** requires design of new and practical social patterns, and law can help induce their design and adoption. For instance, the tool of "ecosystem management" is as yet an imprecise but rapidly developing methodology. The much-neglected systems of "technology assessment" require renewed focus. The containment of persistent organic chemical use to prevent the unwanted dispersal of such substances through human and other natural tissues will require more than the casual and tepid chemical assessment protocols we now employ. Environmental law needs to make stewardship a daily practice, and fashion the legal methods to do so, and not leave stewardship as merely an exhortation.

There are many other elements that will be at work throughout the formation of the next generation of environmental laws. Not all will agree with these seven aspects, but at least I may have provided a point of departure for our debate. We can apply these aspects to the several learned papers that are being presented at this Symposium.

If the global goal of sustainable development is to be attained, environmental law must move to define the enhancements that will characterize our field of law a generation from now. This is our dual challenge: to realize the first generation of environmental laws while we fashion and apply the next generation. Doubtless we shall learn that even more will be required of the third generation, but our tasks are sufficiently difficult for the moment. If we – as legal specialists – take the principle of inter-generational equity seriously, then we must redouble our endeavors to build environmental law from what it is today to what it must be tomorrow.

# From Rio to Johannesburg: A review of Asian Development Bank environmental practice and policy\*

John A. Boyd\*\*

## I. Introduction

The Asian Development Bank recently approved an environmental policy which focuses in part on ADB participation in multilateral environmental agreements, including the non-binding Rio Declaration on Environment and Development,<sup>1</sup> adopted at the United Nations Conference on Environment and Development at Rio de Janeiro in 1992. This article reviews some ADB projects and activities in support of sustainable development, eradication of poverty, capacity building, access to judicial proceedings, environmental legislation, and promoting an open international economic system leading to sustainable development, which are dealt with in Principles 1, 5, 9, 10, 11 and 12, respectively, of the Rio Declaration. This article also considers the number of ADB staff with expertise in environmental matters and law in view of the recommendations in the new ADB environmental policy which indicates ADB needs to strengthen or improve (i) environmental integration, (ii) country strategy and programmes, (iii) consultation with affected parties, (iv) implementation and (v) environmental assessment as a process. The article concludes by suggesting that ADB may need to increase by 26 positions the number of staff with expertise in environmental matters and law to promote effectively sustainable development in the Asian and Pacific region.<sup>2</sup>

On 8 November 2002, ADB approved an Environment Policy which contains “five main elements”:<sup>3</sup>

- “(i) promoting environment interventions to reduce poverty,
- (ii) mainstreaming environmental considerations in economic growth,
- (iii) maintaining global and regional life support systems,
- (iv) building partnership, and
- (v) integrating environmental considerations in ADB operations.”

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<sup>1</sup> United Nations, Rio Declaration on Environment and Development, adopted at the United Nations Conference on Environment and Development, Rio de Janeiro, UN Doc. A/Conf. 151/26 (Vol. 1), (1992) 31 ILM 874.

<sup>2</sup> As suggested in the 2 September 2002 “Statement of Heads of Regional Development Banks at the World Summit for Sustainable Development” at Johannesburg, South Africa.

<sup>3</sup> Asian Development Bank, *Environment Policy*, at 8 and 9.

Concerning the third of these elements, this Environmental Policy indicates that “ADB will focus its participation on MEAs [multilateral environmental agreements] that have clearly identified roles for multilateral development banks”.<sup>4</sup> In this regard, Appendix 6 of the Environment Policy introduces the main features of key multilateral environmental agreements by first describing the Rio Declaration and Agenda 21 as “two non-binding agreements which were adopted at the Earth Summit at Rio de Janeiro in July 1992, and which embody the current international consensus on the principles and content of what is meant by ‘sustainable development’”.

The purpose of ADB, as defined in Article 1 of the Agreement Establishing the Asian Development Bank which came into force on 22 August 1966, is “to foster economic growth and co-operation in the region ... and to contribute to the acceleration of the process of economic development of the developing member countries in the region ....” Accordingly, ADB has invested a great deal of resources, both financial and human, in the last decade to helping its DMCs [developing member countries], spanning the globe from Azerbaijan to the Cook Islands and Kiribati.<sup>5</sup>

## II. Rio Declaration and ADB Environmental Policy

This review of Principles 1, 5, 9, 10, 11 and 12 of necessity will focus on highlights and will be subject to some limitations. Since a comprehensive review of projects in about three dozen ADB DMCs is not feasible, examples from several DMCs will be chosen with respect to environment-oriented loans and technical assistance. Since ADB has a significant advisory technical assistance programme in the People’s Republic of China (PRC), the experience of ADB in PRC will be highlighted, particularly concerning ADB assistance dealing with environmental legislation as provided for in Principle 11 of the Rio Declaration and “to promote a supportive and open international economic system ...”, as provided in Principle 12 of the Rio Declaration.

It is acknowledged that other Principles of the Rio Declaration could be considered. However, since a large proportion of ADB programmes and projects can be viewed within the perspective of Principles 1, 5, 9, 10, 11 and 12, this review is limited to the perspective of these six Principles. Limitations arising from ADB’s place among development institutions need also to be borne in mind. For example, other institutions, such as the International Bank for Reconstruction and Development, have significant loan and technical assistance projects in almost all of ADB’s DMCs. Thus the absence of an ADB emphasis in a particular country, for example on environmental legislation, may be a result in part of another institution implementing a project or activity emphasising environmental legislation in that country. The absence of such an emphasis may also result from a lack of consent for a particular kind of project by the government of a concerned DMC, since Article 14 (iii) of the Agreement Establishing the Asian Development Bank (1996) does not permit ADB to finance any undertaking in the territory of a member if that member objects to such financing.

Given the wealth of information concerning economic, financial and other policies as well as publications concerning economic development, a great deal of which is found in

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<sup>4</sup> *Ibid*, at 13.

<sup>5</sup> See Gunther Handl, *Multilateral Development Banking: Environmental Principles and Concepts Reflecting General International Law and Public Policy*, Kluwer Law International and Asian Development Bank, 2001, which argues in part that ADB’s Articles of Agreement need no amendment to support sustainable development in the Asian and Pacific region.

ADB *Annual Reports*, this review will focus primarily on technical assistance activities and loan projects with an environmental or sustainable development focus.

A final limitation, the relatively small number of ADB employees with significant training in environmental matters and ADB employees with legal skills, will also be discussed. The phrase “significant training in environmental matters” is here defined as either someone with an educational degree in environmental science, engineering or management, or who has completed an appropriate environmental training programme. The phrase “legal skills” means someone with a law degree from an academic institution. It will be suggested that the total number of ADB employees with such training or skills in environmental matters and the law, which may be as high as 75, is insufficient in the context of ADB’s total of nearly 2200 employees or in the context of the environmental issues confronting ADB DMCs, which contain “55 [percent] of the world’s population”.<sup>6</sup>

## **A. Principles 1 and 5 – Living in Harmony with Nature and Eradicating Poverty**

ADB President Tadao Chino specifically embraced the words of Principle 1 of the Rio Declaration in his statement in September 2000, at Kitakyushu, Japan, at the fourth Ministerial Conference on Environment and Development in Asia and the Pacific.<sup>7</sup> At Kitakyushu, he indicated that “human beings are at the center of concerns for sustainable development” and that “they are entitled to a healthy and productive life in harmony with nature”.

In line with the statement in Principle 5 calling for “[a]ll States and all people... [to] cooperate in the essential task of eradicating poverty”, ADB adopted a Poverty Reduction Strategy in 1999, and President Chino in his September 2000 Kitakyushu statement emphasised that as “so many people in Asia live in abject poverty, we at ADB have made poverty reduction our overarching goal”. All ADB loans and technical assistance take into account this over-arching goal of poverty reduction.

One of the most significant ADB poverty reduction loans is entitled the “Access to Justice Program” in Pakistan, consisting of two policy loans equivalent to a total of US\$350 million, plus a technical assistance loan equivalent to US\$20 million to finance technical assistance for Institutional Development for Access to Justice. In addition, ADB provided a technical assistance grant equivalent to US\$900,000 to support a Program Management Unit within the Ministry of Law, Justice, Human Rights and Parliamentary Affairs, which is the Executing Agency for the Access to Justice Program. According to the ADB “Report and Recommendation of the President”<sup>8</sup> (hereinafter “RRP”) for this Access to Justice Program (AJP), the “key development objective of the AJP is to assist the Government” by “supporting five inter-related governance objectives”:

- (i) providing a legal basis for judicial, policy, and administrative reforms;
- (ii) improving the efficiency, timeliness, and effectiveness in judicial and police services;

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<sup>6</sup> Asian Development Bank, *Annual Report 2001*, at 17.

<sup>7</sup> “Statement at the Fourth Ministerial Conference on Environment and Development in Asia and The Pacific”, *ADB Management Speeches: Third and Fourth Quarters 2000*, September 4, 2000 [hereinafter “statement”].

<sup>8</sup> Asian Development Bank, *Report and Recommendation of the President* [hereinafter “RRP”], at i and ii.

- (iii) supporting greater equity and accessibility in justice services for the vulnerable poor;
- (iv) improving predictability and consistency between fiscal and human resource allocation and the mandates of reformed judicial and police institutions at the federal, provincial and local government leads; and
- (v) ensuring greater transparency and accountability in the performance of the judiciary, the police and administrative justice institutions.

The RRP indicates that the “term ‘judicial’, unless the context indicates otherwise, includes institutions responsible for the delivery of administrative justice, such as the offices of the ombudsman at various levels”.<sup>9</sup>

Of interest to environmentalists is a component in the AJP which “support[s] the enforcement of environmental laws through the establishment of environmental tribunals already provided for in the law, and by ensuring that any conflict of interest is removed by different persons heading the provincial environmental agencies (EPA’s) and the provincial environment departments”.<sup>10</sup> Also, “civil society groups will be able to access the LEF (Legal Enforcement Fund) to raise environmental awareness and provide assistance for enforcement of environmental rights”.<sup>11</sup>

In the decade from Rio to Johannesburg, ADB has undertaken significant technical assistance to reduce poverty. As indicated on page 240 of *ADB Annual Report 2001*, ADB provided during 2001 the following seven grants financed by the Japan Fund for Poverty Reduction Assistance:<sup>12</sup>

<b>Bangladesh</b>	
Supporting livelihood improvement for the poor through water management associations	900,000
<b>People’s Republic of China</b>	
Innovations for participatory flood control by the poor along the Yellow River	1,000,000
<b>Lao People’s Democratic Republic</b>	
Community-managed livelihood improvement	1,000,000
<b>Nepal</b>	
Supporting poor and disadvantaged farmers through civil society organizations	800,000
<b>Tajikistan</b>	
Rural poverty reduction	2,900,000
<b>Uzbekistan</b>	
Supporting innovative poverty reduction in Karakalpakstan	2,540,000
<b>Regional</b>	
Improving nutrition for poor mothers and children	6,850,000
Community action for preventing HIV/AIDS	<u>8,000,000</u>
<b>TOTAL in US\$</b>	<b>23,990,000</b>

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<sup>9</sup> *Ibid*, at i.

<sup>10</sup> *Ibid*, at ii and iii.

<sup>11</sup> *Ibid*, at iii.

<sup>12</sup> All figures herein are in US\$.

## **B. Principle 9 – Capacity Building**

Principle 9 of the Rio Declaration calls for capacity building for sustainable development: “States should cooperate to strengthen endogenous capacity building for sustainable development by improving scientific understanding through exchanges of scientific and technological knowledge and by enhancing the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies”. In an article entitled “Environmental Capacity Building”, reproduced in *Capacity Building for Environmental Law in the Asia and Pacific Region: Approaches and Resources*, UNEP’s Donald Kaniaru and Lal Kurukulasuriya suggested ten components for “[e]ndogenous capacity building for sustainable development elaborated by the United Nations Conference on Environment and Development”:<sup>13</sup>

- (i) environmental institutions,
- (ii) policies and strategies,
- (iii) laws and regulations,
- (iv) economic instruments and market-based incentives,
- (v) dissemination of information,
- (vi) training and human resources,
- (vii) environmental profiles, impact assessment,
- (viii) environmental indicators,
- (ix) technology development and transfer, and
- (x) financing.

Based on information contained in the ADB Environmental Policy of 8 November 2002, ADB *Annual Reports*, and articles describing ADB environmental efforts in the 1992–2001 editions of the *Yearbook of International Environmental Law*, it appears that ADB approved about 230 environment-oriented, grant-financed technical assistance activities from 1992 to 2002. About 55% of these activities deal primarily with environmental institutions, including management and monitoring, while about 17% of such environment-oriented technical assistance are concerned primarily with policies and strategies. About 11% of these activities are focused primarily on environmental profiles and impact assessments. The next highest category, dealing with environmental laws and regulations, contains about 5% of these activities. The remaining few ADB technical assistance activities fall under five of the other headings suggested in the article written by UNEP’s D. Kaniaru and L. Kurukulasuriya consisting of economic instruments and market-based incentives, dissemination of information, training and human resources, environmental indicators, technology development and transfer, and financing. Since technical assistance activities often have multiple objectives, technical assistance with a focus primarily on environmental policies and impact assessments may include a capacity building component.

Some examples of environment-oriented ADB technical assistance from Rio in 1992 to Johannesburg in 2002 follow:

- (i) Environmental institutions, including management and monitoring:

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<sup>13</sup> *Capacity Building for Environmental Law in the Asia and Pacific Region: Approaches and Resources, Vol. I*, Craig, Koh & Robinson, (Eds.), ADB, 2002, at 136.

Philippines	– Pasig River Environmental Management and Rehabilitation (1997) \$800,000
Viet Nam	– Hazardous Waste Management (1996) \$600,000
Kazakhstan	– Environmental Monitoring and Management Capacity Building (2000) \$850,000

(ii) Policies and Strategies:

Mongolia	– Strengthening Land Use Policies (1995) \$580,000
Indonesia	– Strengthening of Urban Waste Management Policies and Strategies (1997) \$600,000

(iii) Laws and Regulations:

Nepal	– Formulation of Industrial Pollution Control Legislation (1993) \$135,000
PRC	– Legislative Reform for Protecting the Environment and Natural Resources (1994) \$500,000
India	– Strengthening EIA Capacity and Environmental Legislation (1995) \$500,000

(iv) Economic Instruments and Market-based Incentives:

PRC	– Promotion of Market-Based Instruments for Environmental Improve- ment (1997) \$697,000
Thailand	– Promotion of Market-Based Instruments for Environmental Manage- ment (1998) \$605,000
PRC	– Market-Based Energy Conservation and Environmental Improve- ment (Suppl.) (1998) \$150,000

(v) Dissemination of Information:

Indonesia	– National Biodiversity Information Network (1997) \$700,000
	Regional – Sub-regional Environmental Monitoring and Information System (Phase II) (1999) \$600,000

(vi) Training and Human Resources:

PRC	– EIA Training Phase II Project (1993) \$900,000
Regional	– Training of Journalists in Management of Environmental Inform- ation Resources (1998) \$40,000

Regional – Capacity Building for Environmental Law Training in the Asia and Pacific Region (1995)  
\$600,000

(vii) Environmental Profiles, Impact Assessment:

Lao People's Democratic Republic – Strengthening Environmental Democratic Planning and EIA Capability (1995)  
\$599,000

Kyrgyzstan – Strengthening Environmental Institutions and Improving Procedures for EIA (1995)  
\$556,000

Bhutan – Strengthening EIA Capabilities and Preparation of Environmental Guidelines (1996)  
\$350,000

(viii) Environmental Indicators:

Regional – Environmental Indicators and Indexes (1993)  
\$818,000

(ix) Technology Development and Transfer:

PRC – Establishing a Center for the Transfer of Environmentally Sound Technology (1995)  
\$550,000

Regional – Appropriate Technology for Soil – Conserving Farming Systems (Phase I) (1998)  
\$600,000

PRC – Study on Clean Integrated Gasification Combined Cycle Technology (1997)  
\$500,000

(x) Financing:

PRC – Financing Mechanism for Energy Efficiency Investment (1997)  
\$150,000

Below is information concerning (i) the total number of environment-oriented ADB loans from Rio to Johannesburg and (ii) titles and amounts of some of these loans:

1992	(i) 7 loan projects
	(ii) Indonesia's Biodiversity Project – \$24.3 million
1993	(i) 7 loan projects
	(ii) India's Gas Flaring Reduction Project – \$300 million
1994	(i) 4 loan projects
	(ii) PRC Beijing Environmental Improvement Project – \$157 million
1995	(i) 11 loan projects

- |      |                                                                                                                                      |
|------|--------------------------------------------------------------------------------------------------------------------------------------|
|      | (ii) Pakistan’s Forestry Sector Project<br>– \$43 million                                                                            |
| 1996 | (i) 8 loan projects                                                                                                                  |
|      | (ii) Cambodia’s Phnom Penh Water Supply and Drainage Project<br>– \$20 million                                                       |
| 1997 | (i) 7 loan projects                                                                                                                  |
|      | (ii) Sri Lanka’s Upper Watershed Management Project<br>– \$16.6 million                                                              |
| 1998 | (i) 10 loan projects                                                                                                                 |
|      | (ii) Bangladesh’s Sundarbans Biodiversity Conservation Project<br>– \$37 million                                                     |
| 2000 | (i) 12 loan projects                                                                                                                 |
|      | (ii) Papua New Guinea’s Provincial Towers Water Supply and<br>Sanitation Project<br>– \$15.345 million                               |
| 2001 | (i) 5 loan projects                                                                                                                  |
|      | (ii) Lao People’s Democratic Republic’s Environmental and Social<br>Safeguards in the Energy and Transport Sectors<br>– \$20 million |

### **C. Principle 10 - Judicial Proceedings**

ADB has financed four significant efforts to respond to the call contained in the last sentence of Principle 10 of the Rio Declaration for “effective access to judicial and administrative proceedings, including redress and remedy”.

In addition to Pakistan’s “Access to Justice Program” described above, an ADB technical assistance grant in the year 1999 to the Government of the Republic of Maldives, entitled “Strengthening Legal Education and Judicial Training”, focused in part on improving human resources for the local judicial system. This ADB grant of US\$995,000 included US\$244,000 to finance a judicial training component, with US\$48,000 for overseas training.<sup>14</sup> In July 2001, ADB approved two more technical assistance grants supporting strengthening of national judiciaries. One of these two, equivalent to US\$1,200,000, is designed to “Strengthen the Independence of the Judiciary in the Philippines” by undertaking the following:<sup>15</sup>

- “(i) a framework for the judiciary’s fiscal and administrative autonomy will be designed, (ii) the appointment process and the accountability and incentive system under which the judges and justices function will be improved, and (iii) the capacity of PhilJA [Philippine Judicial Academy] to deliver judicial training will be strengthened.”

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<sup>14</sup> Asian Development Bank, *Technical Assistance to the Maldives for Strengthening Legal Education and Judicial Training*, December 1999, at 8.

<sup>15</sup> *Ibid.*

The objective of the second such technical assistance approved by ADB in 2001 is to “improve awareness of the importance of judicial independence and the means of achieving” it in Cambodia, Indonesia, the Lao People’s Democratic Republic, Pakistan, the Philippines, Singapore and Viet Nam. This technical assistance for a regional “Judicial Independence Project” is financed by a grant from the Government of the Netherlands equivalent to US\$200,000 and a grant by ADB equivalent to US\$275,000. The “scope of the Technical Assistance includes (i) conducting surveys of the current state of judicial independence and challenges in these seven countries and selected developed countries”, and (ii) “based on the surveys, holding a regional workshop and a conference to share experiences and open channels of communication between stakeholders in these seven countries. The technical assistance thus “may form a basis for future law and policy reform interventions at the country level”.<sup>16</sup>

As noted below under the heading dealing with Principle 12, ADB is preparing new technical assistance for approval in 2002 dealing with Enforcement of World Trade Organization (WTO) Rules by the Judicial System. This proposed technical assistance is being designed to develop a judicial review function in PRC’s court system and to strengthen the capacity of the PRC to decide WTO rule-related cases. Also as noted below under the Principle 12 heading, ADB has assisted in strengthening the PRC legal information system.

#### **D. Principle 11 – Environmental Legislation in the People’s Republic of China**

ADB’s technical assistance activities supporting the enactment of environmental legislation are clearly consistent with the injunction in the first sentence of Principle 11: “States shall enact effective environmental legislation”. ADB’s first effort to build capacity among PRC environmental drafters was entitled “Legislative Reform for Protecting the Environmental and Natural Resources Committee”. This Technical Assistance, approved in 1994, assisted with the preparation of amendments to the Water Pollution Law and the Environmental Management Law. As a result, a new Water Pollution Law was adopted by the National People’s Congress in May 1996, as reported by ADB Resident Representative Bruce Murray, Peng Xiaohua and Peng Longyun (hereinafter “Murray Reform”).<sup>17</sup>

ADB’s second legal environmental technical assistance to PRC, entitled “Capacity Building for Natural Resources Legislation”, assisted legislative drafters in preparing a framework for natural resource law and amendments to PRC’s Land Administration Law. In August 1998 a revised Land Administration Act was passed by the National People’s Congress and made effective as of 1 January 1999, as reported in *Laws and Regulations of the People’s Republic of China*.<sup>18</sup>

A third ADB environmental law technical assistance, entitled “Provincial Legislation on Environmental Protection and Natural Resources Conservation”, which was approved in 1998, was designed to assist more than one hundred legislative drafters from PRC provinces, agencies and universities with the review and revision of local legislation related to the revised Land Administration Law of June 1998. Among the results of this third intervention

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<sup>16</sup> Asian Development Bank, *Technical Assistance for Judicial Independence*, at 3.

<sup>17</sup> See “Asian Development Bank and People’s Republic of China: Partnership in Law and Policy Reform”, unpublished paper, September 2002, at 4.

<sup>18</sup> Compiled by the Legislative Affairs Office of the State Council, China Legal Publishing House, Beijing, China, IV-14-00-101. See also Asian Development Bank, *Reform of Environmental and Land Legislation in People’s Republic of China*, 2000.

was enactment of “Implementation Measures of Sichuan Province on the Land Administration of the People’s Republic of China”.

Subsequent to these three legal technical assistance activities, ADB has approved three additional technical assistance grants to build capacity concerning environmental legislation in PRC. ADB’s “Strategic Options for the Water Sector”, approved in 1997, assisted with review of PRC’s Water Law, which became effective in 1988.<sup>19</sup> This technical assistance grant equivalent to \$1,180,000 supported activities under four headings:

- (i) water allocation, rights and permits,
- (ii) water resource management systems,
- (iii) efficiency of use and conservation of water, and
- (iv) water quality control, covering surface and ground water, and standards for pollution.

The PRC National People’s Congress adopted an “amended Water Law” in August 2002, which became effective on 10 October 2002.<sup>20</sup>

As reported on page 227 of ADB *Annual Report 2001*, ADB approved a technical assistance grant equivalent to US\$970,000 for “Strategic Planning for the Preparation of the Yellow River”. This technical assistance is designed to provide the People’s National People’s Congress with information and recommendations related to the formulation of a Yellow River Law. In particular this technical assistance will support the Ministry of Water Resources with “strategic studies relating to integrated water resources management of the Yellow River Basin”<sup>21</sup> and research concerning ways legal measures can deal with Yellow River Basin problems.

In 2000, ADB approved a regional technical assistance entitled Combating Desertification in Asia to support in part formulation of regulations to implement the PRC’s Law on Combating Desertification, which came into force on 1 January 2002.<sup>22</sup> This law includes incentive-based measures to combat desertification. The proposed regulations will cover desertification monitoring, including criteria for desertified areas and responsibilities for planning and management at the local level.

### **E. Principle 12 – Promoting an Open International Economic System for Sustainable Development in the People’s Republic of China**

Principle 12 of the Rio Declaration enjoins States to “cooperate to promote a supportive and open international economic system that would lead to economic growth and sustainable development in all countries, to better address the problems of environmental degradation”. ADB has undertaken a great many technical assistance activities in PRC in support of Principle 12. Furthermore, many of these activities in the PRC have resulted in significant legislation. According to ADB Resident Representative to PRC, Bruce Murray, ADB strategy for the PRC legal system focuses on:<sup>23</sup>

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<sup>19</sup> Murray Reform, *supra* note 17, at 5.

<sup>20</sup> *Ibid.*

<sup>21</sup> *Ibid.*

<sup>22</sup> *Ibid.*

<sup>23</sup> *Ibid.*, at 2.

“(i) promoting a rule-based, international standard of business transactions for a market economy, by providing assistance to reform the legal and regulatory system; (ii) providing assistance for the preparation of new laws; (iii) supporting the legal and regulatory reform in response to the challenges of further opening up the country’s economy and integrating it into the global economic system after its entry into the World Trade Organization (WTO); (iv) supporting the legal institutions to provide access to legal and judicial services for the poor and disadvantaged groups; (v) improving the efficiency and professional capacity of the judicial system; and (vi) promoting the development and capacity building of regulators and improving regulatory functions of sector ministries.”

In support of this strategy, ADB approved a technical assistance grant in 2001 of \$700,000 for the PRC entitled “WTO Membership and Foreign Trade Law Reform”. This technical assistance is designed to assist the Government “in reforming foreign trade law to comply with WTO requirements”.<sup>24</sup> International and domestic consultants engaged under this technical assistance assisted:<sup>25</sup>

“in reviewing ... the final draft of regulations on anti-dumping, subsidies and countervailing duties, safeguard measures, import and export of goods and the rule of origin. The first four of these regulations were adopted in December 2001 when PRC’s application for membership in the World Trade Organization became effective.”

This technical assistance continues to support efforts by the PRC’s Ministry of Foreign Trade and Economic Cooperation to develop regulations on transnational mergers and acquisitions, amend the Foreign Trade Law, undertake research on legal and policy issues for the new round of global trade negotiations, and to study “experience of Asian countries in complying with rules of the World Trade Organization”.<sup>26</sup>

One of the most significant examples of ADB technical assistance in PRC concerning innovative technologies provided for in Principle 9 of the Rio Declaration is entitled “Cluster for the Promotion of Clean Technology”, approved by ADB in 1998. This technical assistance consists of six components, including a component providing support “to help draft the Clean Production Promotion Law, which was passed by the National People’s Congress in June 2002 and will become effective on 1 January 2003”.<sup>27</sup> This legislation requires the PRC Government to develop guidelines for clean technology, disclose major polluters to the public, introduce environmental auditing and consider adopting preferential tax policies for promotion and implementation of clean production.

ADB technical assistance for PRC entitled “Strengthening of Legal Information System” is an example of a response to the call within Principle 10 for “States ... [to] facilitate and encourage public awareness and participation by making information widely available”. This technical assistance resulted in part in publication of a sixteen-volume loose-leaf publication of laws and regulations relevant to foreign traders and investors. Publication of these translations is designed to assist the PRC Government in increasing the transparency of its

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<sup>24</sup> Asian Development Bank, *Technical Assistance to the People’s Republic of China for WTO Membership and Foreign Trade Law Reform*, June 2001, at 6.

<sup>25</sup> Murray Reform, *supra* note 17, at 3.

<sup>26</sup> *Ibid.*

<sup>27</sup> *Ibid.*, at 5.

<sup>28</sup> *Ibid.*, at 3.

legislative and law implementation processes, consistent with the integration of the PRC's economy into the global economic system after its entry into the World Trade Organization.<sup>28</sup> The 16-volume publication resulting from this technical assistance includes a section on "Environmental Protection" providing English translations of several laws, regulations and decisions concerning maritime issues, solid waste, water pollution, controlled chemicals, wild animals and plants.

Three other ADB technical assistance efforts have been undertaken to facilitate PRC's entry into the "open international economic system". In September 1999 ADB provided a \$1.4 million grant for technical assistance entitled "Development of Economic Laws" to assist the Legislative Affairs Commission, Standing Committee of the National People's Congress and Office of Legislative Affairs of the State Council. The objectives of this technical assistance approved in September 1999, include providing "support for the preparation of ... seven laws and regulations", which will facilitate:<sup>29</sup>

- "(i) development of legal infrastructure for a market economy,
- (ii) establishment of a legal and regulatory framework to address the pressing issues associated with... economic reform, and
- (iii) adoption of measures to reduce the risks of a financial crisis."

This technical assistance is designed to strengthen drafting of legislation under the following headings: (i) Company Law amendments, (ii) bankruptcy law, (iii) trust law, (iv) closure and restructuring of financial institutions, (v) social security law, (vi) registration of enterprises, and (vii) administrative licensing.

Another ADB technical assistance approved in 1998 was designed to support the Financial and Economic Committee of the National People's Congress in drafting a Securities Law.<sup>30</sup> This legislative drafting technical assistance assisted in the finalization of the Securities Law, adopted in December 1999 and effective in July 2000. This Securities Law authorizes certain security regulatory powers with respect to markets, emphasises the supervisory and regulatory focus of information disclosure, and enables market forces to determine the acceptance and market value of new issuances of securities.<sup>31</sup>

ADB has financed three technical assistance grants providing for procurement of public sector goods and services in conformance with internationally accepted, transparent procedures. Under "Preparation of National Procurement Regulations for the Public Sector", approved in May 1995, ADB financed experts to comment on a draft tendering and bidding law, which was adopted as the "Law of the People's Republic of China on Bid Invitation and Bidding" by the National People's Congress in August 1999, and became effective as of 1 January 2000. Under technical assistance entitled "Implementation of the Tendering and Bidding Law and Related Regulations", approved in 2000, ADB consultants assisted in the preparation of implementing regulations and standard bidding documents. Under the ongoing technical assistance "Formulation of the Government Procurement Law", approved in 2001, ADB helped the National People's Congress to formulate a comprehensive national Government Procurement Law, which was adopted by the National People's Congress in June 2002 and will become effective on January 2003.<sup>32</sup>

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<sup>29</sup> Asian Development Bank, *Proposed Technical Assistance for Development of Economic Laws*, 1999, at 6.

<sup>30</sup> *Ibid*, at 3. See also Asian Development Bank, *Monthly Report on Small-Scale Technical Assistance Projects Not Exceeding \$150,000 per Project*, July 1998, at 1.

<sup>31</sup> Murray Reform, *supra* note 17, at 3.

<sup>32</sup> *Ibid*, at 6.

ADB's technical assistance for Development of Financing Policies and Mechanisms for Small and Medium-sized Enterprises supported preparation of a Small and Medium-sized Enterprise Promotion Law adopted by the National People's Congress in June 2002 and to be effective on 1 January 2003.<sup>33</sup>

The following technical assistance activities are proposed to be provided to PRC by ADB in the next three years:<sup>34</sup>

	<b>Title</b>	<b>Proposed</b>	<b>Year</b>
1	Enforcement of WTO Rules by the Judicial System	\$ 300,000	2002
2	Banking Law and Regulation	\$ 800,000	2002
3	Support for SME [Small and Medium sized Enterprises] Law Implementation	\$ 150,000	2002
4	Strategic Review and Planning for Development of the Legal and Judicial Law	\$ 400,000	2003
5	Budget Law	\$ 200,000	2003
6	Legal System Development	\$ 500,000	2004
7	Legislative Support for Water Sector	\$ 150,000	2004
8	Capacity Building in Judicial System on Financial and Economic Laws	\$ 500,000	2005

### **III. ADB Mandate and Resources**

The Asian and Pacific region continues to face significant environmental challenges. The *ADB Annual Report 2001* indicates<sup>37</sup> that the Asian and Pacific region "covers 23% of the world's land area and contains 55% of the world's population ...". This *Annual Report 2001* also indicates<sup>38</sup> that the Asian and Pacific region has "a population density of 93 people per square kilometre, compared with a world density of 24 people per square kilometre".

The *ADB Annual Report 2001* states that "[a]ddressing environmental sustainability" is one of ADB's three crosscutting themes which are designed to "broaden and deepen the impact" of the core areas of intervention, including sustainable economic growth, inclusive social development, and governance for effective policies and institutions.<sup>39</sup> The other two crosscutting themes are (i) supporting regional cooperation and integration for development and (ii) promoting the role of the private sector in development.<sup>40</sup>

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<sup>33</sup> *Ibid.*, at 3 and 4.

<sup>34</sup> *Ibid.*, at 9.

<sup>35</sup> Asian Development Bank, *Annual Report 2001*, at 17.

<sup>36</sup> *Ibid.*

<sup>37</sup> *Ibid.*

<sup>38</sup> *Ibid.*

<sup>39</sup> *Ibid.*, at 42 and 38 respectively.

<sup>40</sup> *Ibid.*, at 44 and 39 respectively.

To support its three core areas of interventions and three crosscutting themes, ADB approved, in 2001, 76 loans totalling \$5,339 million in 60 projects.<sup>41</sup> In 2001 ADB also approved 257 technical assistance grants equivalent to \$146.4 million.<sup>42</sup> In addition 552 loans from previous years are under administration as are perhaps 500 technical assistance activities. Concerning recent technical assistance, ADB approved 306 technical assistance grants in the year 2000 with a value equivalent to \$172 million and in 2001, ADB approved 206 technical assistance grants with a value equivalent to \$116,480,000.<sup>43</sup>

To undertake these significant responsibilities, ADB had, according to the *ADB Annual Report 2001*, 2,163 employees at the end of 2001, consisting of 763 professional staff and 1400 support staff.<sup>44</sup> Of these staff, ADB has about 35 professional staff and five support staff who have significant training in environmental matters including about eight professional officers and one support staff who work in the Environmental and Social Safeguard Division within the Regional and Sustainable Development Department. Other such professional staff with environmental expertise work in leadership positions within the regional and Sustainable Development Department, or in other positions within ADB including about 18 environment specialist positions in ADB's regional departments.

Normally, ADB has one lawyer with training in environmental law serving in its Office of the General Counsel, which has about 30 lawyers working at the end of 2001. Since the General Counsel, Deputy General Counsel and three Assistant General Counsels within the Office of the General Counsel perform primarily supervisory functions, about 25 lawyers are responsible for daily work activities including preparing 76 loans approved in 2001 and administering 552 loans and perhaps as many as 500 technical assistance grants approved in previous years. Since two lawyers deal primarily with administrative and personnel matters, each of the remaining 23 lawyers within the Office of the General Counsel administers on average more than 20 loans and participates annually in about five appraisal missions, and other similar project-related tasks. In addition, ADB has about five lawyers who once served in the Office of General Counsel but who now perform administrative functions in other offices or departments.

Most of the 35 professional and five support staff with environmental training are also required to provide environmental inputs for the 552 loans under administration in 2001 plus 76 loans approved in 2001. Each loan, whether environment-oriented or not, requires an environmental review in both the planning and implementation phases. While some loans require relatively little work from the environmental perspective, others require a great deal of environmental attention. Preparing and administering environmental technical assistance activities can also require a great deal of work. These 40 ADB employees with significant training in environment matters will be especially challenged in the near future to undertake the improved areas of responsibility outlined in the Environment Policy of November 2002 with respect to strengthening or improving (i) environmental integration, (ii) country strategy and programmes, (iii) consultation with affected parties, (iv) implementation, and (v) environmental assessment, as noted immediately below.

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<sup>41</sup> *Ibid*, at 2.

<sup>42</sup> *Ibid*, at 3.

<sup>43</sup> Asian Development Bank, *Annual Report 2000*, at 2 and Asian Development Bank, *Annual Report 2001*, at 2, respectively.

<sup>44</sup> *Ibid*, at 108.

#### **IV. Need for additional ADB staff with environmental and legal expertise**

The Environment Policy of the Asian Development Bank approved 2 November 2002 contains five paragraphs at pages 6 and 7 under the heading “The Need to Further Integrate Environmental Considerations in ADB Operations” suggesting that ADB should strengthen or improve performance under the following headings:

- (i) “ADB has made good progress integrating environmental considerations across its operations ....”
- (ii) “At the earliest planning stage, ADB seeks to ensure that environmental considerations are properly mainstreamed into country strategies .... This has helped set the stage for environmental loans and the inclusion of environmental objectives in traditional projects. Nevertheless, country programming could be improved by increased and more informed dialogue with governments on policy reforms relating to poverty environment linkages and the sustainable use of natural resources.”
- (iii) “The consultation process with local stakeholders and groups affected by projects needs to be strengthened .... At the DMC level, the extent of consultation is highly dependent on country-specific laws, regulations, and practices.”
- (iv) “Environmental mitigation measures need to be better reflected in environmental provisions in contract, procurement, and tender documents. When mitigation measures are revised or supplemented to suit changes during implementation, often it is difficult to make such measures binding and fund them as well.”
- (v) “ADB needs to emphasise that environmental assessment is a process rather than a one-time report, so that necessary environment analyses and management planning happen at appropriate times in the project cycle. ADB needs to strengthen its environmental loan covenants and implementation review to further minimize downstream risks.”

In addition to these five areas which are in need of improvement, this Environment Policy<sup>45</sup> notes under the heading of “Environmentally Responsible Procurement” that “ADB lending currently generates about \$5 billion worth of procurement per year” and then states that:

“ADB will encourage borrowers and executing agencies to ensure, whenever possible, that the goods and services improvement procured under ADB-financed projects have been produced in a responsible manner with a view to resource efficiency, waste minimization, and social considerations ... [To accomplish this significant objective, ADB will include] [s]uitable provisions... in loan and project agreements as well as bidding documents to ensure environmentally responsible procurement.”

Under the heading “Resource Implications” the ADB Environment Policy indicates<sup>46</sup> that “ADB has 18 environment specialist positions”, and then states on page 23 that “[o]verall incremental staffing requirements for the immediate to medium terms (2002–2005) will amount to about 12 person-months of professional staff equivalent per year”.

Given their existing responsibilities, ADB’s approximately 35 professional and about 5 supporting staff with significant training in environmental matters will be challenged in the

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<sup>45</sup> *Supra* note 3, at 20.

<sup>46</sup> *Ibid.*, at 22.

near future to undertake these areas of responsibility outlined in the "Environment Policy" calling for strengthening or improvement with respect to integration, country strategy and programmes, consultation, implementation, and environmental assessment. These 40 staff with environmental expertise and ADB's 35 lawyers both within and outside of ADB's Office of the General Counsel will also be challenged to ensure that ADB procurement is undertaken in an improved manner with respect to resource efficiency, waste minimization, and social considerations through suitable conditions and covenants in loan and project agreements as well as procurement, tender and other contracts.

In view of the above, it appears that ADB may need to hire more lawyers and staff with significant environmental training if it is to meet effectively the challenge of its crosscutting theme of "addressing environmental sustainability". A question may arise as to the capacity of these 40 employees with environmental expertise and 35 lawyers to meet effectively the environmental challenges presented by the 550 loans under administration plus 76 loans approved in 2001 and perhaps 500 ongoing technical assistance activities, including perhaps more than one hundred such activities addressing environmental sustainability.

## **V. Conclusion**

On 2 September 2002, in Johannesburg, South Africa, at the World Summit for Sustainable Development, the President of ADB and the heads of three other regional development banks issued a one page statement which "stressed their continuing commitment to promoting sustainable development..."<sup>47</sup> They also stressed "their belief that the principles of sustainability will be implemented best through a partnership of governments, international organizations, private enterprises, local populations and other stakeholders". These four heads of regional development banks closed by "reaffirm[ing] ... [their] strong commitment to work in partnership to leverage the power of a multitude of voices to serve in the real and effective implementation of the principles of sustainable development".

In concert with the multitude of voices mentioned in this Johannesburg statement, ADB has accomplished as described above a great deal in the decade from Rio to Johannesburg with respect to Principles 1, 5, 9, 10, 11 and 12 set forth in the Rio Declaration. Though governments, international organizations, private enterprises, local populations and other stakeholders will continue to play a significant role in efforts to promote sustainable development, it is suggested that ADB needs to strengthen its own staff resources, particularly those with environmental and legal expertise to help the people of the Asian and Pacific region achieve their sustainable development goals. Periodic consultations with affected persons for each of ADB's 550 ongoing loans under administration may need as many as 20 additional staff or consultants. Increasing the number of technical assistance activities to improve effective access to judicial proceedings and combat corruption may require an additional half dozen lawyers or legal consultants. Adding in the near future 20 more staff with experience in environmental matters and a half dozen more lawyers would significantly strengthen ADB's ability to meet the objectives set forth in its November 2002 Environmental Policy. The challenge presented by the Rio Declaration may require even more staff to realize the vision and recommendations of this new Environmental Policy.

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<sup>47</sup> *Statement of Heads of Regional Development Banks at the World Summit for Sustainable Development*, 2 September 2002, at 1.

## **II. Reforms to the energy law agenda to implement the Kyoto Protocol**

# The UNFCCC after the decisions of Johannesburg's WSSD

*Maria Socorro Z. Manguiat\**

*This paper examines the links between the World Summit on Sustainable Development (WSSD) Plan of Implementation (POI) and the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol (KP). The author submits that the WSSD Plan of Implementation is a potential driving force for UNFCCC implementation and that in turn, the UNFCCC can be a means of advancing the goals of the WSSD Plan of Implementation. This is demonstrated by linking particular provisions of the Plan of Implementation, the UNFCCC, and the KP. The paper then identifies means of making these synergies work through several priority areas and future challenges, pointing out areas where IUCN is already doing work.*

## **I. What is the appropriate international response to the global issue of climate change?**

This is a question that Parties to the United Nations Framework Convention on Climate Change (UNFCCC) have been grappling with for years. This paper seeks to point to how the World Summit on Sustainable Development (WSSD) Plan of Implementation<sup>1</sup> on the one hand and the UNFCCC and its Kyoto Protocol<sup>2</sup> on the other, can be mutually reinforcing instruments. The author submits that the WSSD Plan of Implementation is a potential driving force for UNFCCC implementation, and that in turn, the UNFCCC can be a means of advancing the goals of the WSSD Plan of Implementation.

## **II. How does the WSSD Plan of Implementation promote a robust UNFCCC regime?**

The heart of the WSSD POI provisions on climate change may be found in paragraph 36 thereof. As will be explained in the rest of the paper, the Plan of Implementation is replete with provisions that link to climate change either expressly or impliedly.

Focusing for the meantime on the provisions of paragraph 36, one of the most important things to note is the recognition of the UNFCCC as the key instrument for addressing climate change. This implies that actions to address climate change should be taken under the ambit of the UNFCCC process and not outside of it. While this does not imply that parallel activities

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<sup>1</sup> A copy of the WSSD Plan of Implementation may be found at [www.johannesburgsummit.org](http://www.johannesburgsummit.org)

<sup>2</sup> The Kyoto Protocol to the United Nations Framework Convention on Climate Change, hereinafter referred to as the "Kyoto Protocol" or the "KP".

should not take place, this provision emphasizes the importance of international consensus in taking measures to address climate change.<sup>3</sup>

Another matter highlighted by paragraph 36 is issues within the UNFCCC that should be advanced, independently of the Kyoto Protocol which has, to a great extent, tended to grab the attention of State Parties and negotiators. While there is merit in focusing on the development of modalities under the KP, especially with its entry into force in early 2003 becoming a stronger possibility, Parties and other stakeholders must not lose sight of continuing to improve the implementation of the UNFCCC. One example of a UNFCCC provision that requires increased attention is Article 6 on education, training, and public awareness.<sup>4</sup>

### III. How can the UNFCCC facilitate achievement of the goals set out in the Plan of Implementation?

Effective implementation of the UNFCCC cuts at the very core of promoting economic development, social development and environmental protection, the three components of sustainable development.<sup>5</sup> It is also potentially one of the best examples of applying the principle of “common but differentiated responsibility”.<sup>6</sup>

There is great promise in meeting the overarching objectives of, and essential requirements for, sustainable development through the development of policies and measures under the umbrella of the UNFCCC. As set out in the WSSD Plan of Implementation, these requirements are: (1) poverty eradication; (2) changing unsustainable patterns of production and consumption; and (3) protecting and managing the natural resource base of economic and social development.<sup>7</sup>

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<sup>3</sup> Par. 95 of the WSSD Plan of Implementation states, in part, that “[e]nvironmental measures addressing transboundary or global environmental problems should, as far as possible, be based on international consensus”. While this statement was made in the context of preventing unilateral measures that could be perceived as disguised trade barriers, the same provision can, *mutatis mutandis*, apply to measures under the UNFCCC.

<sup>4</sup> Decision 11/CP.8, the New Delhi Work Programme on Article 6 of the Convention and its Annex (FCCC/CP/2002/7) was adopted by the Conference of the Parties to the UNFCCC at its eighth session held in New Delhi, India, from 23 October to 1 November 2003. The Decision and its Annex set out a five-year programme for the implementation of activities relating to education, training and public awareness.

<sup>5</sup> Par. 2, WSSD Plan of Implementation.

<sup>6</sup> Article 3.1 of the UNFCCC states that “[t]he Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof”. There is still, and will continue to be, much debate on what the application of this principle entails, but the basic structure of commitments under the UNFCCC and the KP does recognise the difference between the historical responsibility and capabilities of Parties.

<sup>7</sup> Par. 2, WSSD Plan of Implementation.

## 1. Poverty eradication

The right to development and to deal with poverty is expressly acknowledged by the UNFCCC.<sup>8</sup> Many of the tools for poverty eradication mentioned under the WSSD POI, such as the improvement of access to reliable and affordable energy services, combating desertification and mitigating the effects of drought and floods, and provision of clean drinking water, are all intimately related to measures to deal with, and to the effects of, climate change. This is evident when one looks at the sectors and greenhouse gas source categories listed under Annex A of the KP, *inter alia*, energy, industrial processes, agriculture, and waste. Moreover, adaptation measures taken under the UNFCCC and the KP present a rich opportunity for addressing the challenge of poverty eradication.

Recognizing that “access to energy facilitates the access to eradication of poverty”<sup>9</sup> and that there will be sharp increases in the energy needs of developing countries,<sup>10</sup> one of the strongest messages that came out of Johannesburg was the need for improvement of access to reliable and affordable energy services. As one of the recognized means of reducing greenhouse gas emissions both in developed and developing countries,<sup>11</sup> the incentives or disincentives provided by the UNFCCC and the KP in the promotion of energy efficiency is likely to affect energy development plans at the international, regional and national levels in a significant way.

Combating desertification and mitigating the effects of drought and floods<sup>12</sup> fall squarely within the types of adaptation activities already being undertaken by Parties to the UNFCCC. As climate change also affects both the quantity and quality of water available, any programme that aims to provide clean drinking water, as called for under par. 7 of the WSSD Plan of Implementation will need to factor in climate change considerations.

## 2. Changing unsustainable patterns of production and consumption

Changing unsustainable patterns of production and consumption is an unconditional requirement for reducing greenhouse gas emissions. The words of the Plan of Implementation, to wit “[f]undamental changes in the ways societies produce and consume are indispensable for achieving global sustainable development”,<sup>13</sup> could very well apply to efforts under the UNFCCC. Undoubtedly, much controversy still clouds discussions on what sustainable patterns of production and consumption would be but, as the Plan of Implementation points out, there is no cookie-cutter solution to this challenge.<sup>14</sup>

Realizing that costs will be involved in promoting these technologies, the Plan of Implementation recalls the polluter pays principle, which implies that costs involved in

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<sup>8</sup> The 21<sup>st</sup> prefatory clause, UNFCCC, states in part that “responses to climate change should be coordinated with social and economic development in an integrated manner with a view to avoiding adverse impacts on the latter, taking into full account the legitimate priority needs of developing countries for the achievement of sustained economic growth and the eradication of poverty”.

<sup>9</sup> Par. 8, WSSD Plan of Implementation.

<sup>10</sup> Par. 8(g), WSSD Plan of Implementation.

<sup>11</sup> Par. 8(g), WSSD Plan of Implementation.

<sup>12</sup> Par. 6 (l), WSSD Plan of Implementation.

<sup>13</sup> Par. 13, WSSD Plan of Implementation.

<sup>14</sup> As par. 14 (a) of the WSSD Plan of Implementation states, “standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries”.

adopting these standards in less developed countries may fall to some extent upon the shoulders of the more developed countries. As historical trends indicate that developing countries can no longer follow the development model used by developed or the so-called Annex I countries to achieve their present economic state, if emissions are to be kept at reasonable levels, the question then is what models should be used by developing countries, and if these alternative models require opportunity costs, who should bear these costs?

### **3. Protecting and managing the natural resource base of economic and social development**

Efforts at mitigating the effects of climate change and developing adaptation measures should both aim for protecting and managing the natural resource base if they are to have any sustainable effects. Part of this natural resource base is the sustainable development of oceans, coastal areas and seas through, among others, “addressing critical uncertainties for the management of the marine environment and climate change”.<sup>15</sup>

Another essential element of managing this resource base is the development of an “integrated, multi-hazard, inclusive approach to address vulnerability, risk assessment and disaster management, including prevention, mitigation, preparedness, response and recovery”.<sup>16</sup>

The risk of flooding and drought in vulnerable countries can be reduced by, *inter alia*, “assessing the potential adverse effects of climate change on wetlands, and, as appropriate, assisting countries that are particularly vulnerable to these effects”.<sup>17</sup> This is, in fact, one of the recommendations embodied in a draft Resolution to be submitted by the Ramsar Standing Committee to the eighth session of the Conference of the Parties to the Ramsar Convention.<sup>18</sup> This draft resolution and the accompanying background paper prepared by the Scientific and Technical Review Panel were drafted with input from IUCN, including the IUCN Environmental Law Centre.

## **IV. Means of implementation**

To realize the outlined means of mutual reinforcement, it is necessary to turn to the following priority areas set forth below.

### **1. What is sustainable development?**

Measures taken under the UNFCCC and the KP should link to the national sustainable development strategy to ensure that the stabilization of greenhouse gases called for under the UNFCCC would allow “economic development to proceed in a sustainable manner”.<sup>19</sup> Before this can be done, countries must ensure that there is a clear understanding within the country of what sustainable development means for them. A common understanding should also be achieved at regional and international levels. As suggested in the WSSD Plan of Implementation, this process could include further work on indicators for sustainable

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<sup>15</sup> Par 29 (c), WSSD Plan of Implementation.

<sup>16</sup> Par. 35, WSSD Plan of Implementation.

<sup>17</sup> Par. 35 (d), WSSD Plan of Implementation.

<sup>18</sup> See Ramsar COP – DOC.11 (Climate Change and Wetlands: Impacts, Adaptation and Mitigation) available at [http://ramsar.org/cop8\\_doc\\_11\\_e.doc](http://ramsar.org/cop8_doc_11_e.doc)

<sup>19</sup> Art. 2, UNFCCC.

development by countries.<sup>20</sup> The determination of what sustainable economic development means for a country is essential to fulfilling the ultimate objective of the Convention.<sup>21</sup>

## 2. Addressing vulnerability

While Parties should focus on the quantitative targets set in the KP, they should, regardless of these targets, be addressing the needs of the most vulnerable countries, who happen to also be developing countries, including the least developed countries and the small island developing states.<sup>22</sup> In the case of small island states, the WSSD Plan of Implementation identifies comprehensive hazard and risk management, disaster prevention, mitigation and preparedness, and helping to relieve the consequences of disasters, extreme weather events and other emergencies as possible means of extending assistance.<sup>23</sup> Treatment of this matter should also involve the issue of dealing with displaced persons. More attention should also be given to vulnerable ecosystems such as mountain ecosystems that have become particularly fragile and vulnerable to the adverse effects of climate change, for instance, due to the retreat of glaciers due caused by global warming.<sup>24</sup>

With regard to supporting efforts to prevent and mitigate the impact of natural disasters<sup>25</sup> the work of IUCN – The World Conservation Union/International Institute for Sustainable Development (IISD)/Stockholm Environment Institute-Boston (SEI-B) Task Force on Climate Change, Adaptation and Vulnerable Communities promises to be an important contribution to this effort. The initiative, which brings together the climate change, resource conservation and disaster management communities, seeks to promote the use of environmental management as a strategic approach to reduce the climate-related vulnerability of communities, particularly the poor and marginalized.<sup>26</sup>

## 3. Synergies and linkages

As pointed out in the WSSD POI, efforts of the UNFCCC, the Convention on Biological Diversity (CBD) and the Convention to Combat Desertification (CCD) to explore and enhance synergies should be encouraged.<sup>27</sup> Finding linkages and ways to use measures in one convention to meet the objectives of other conventions is the only realistic way to take effective action in a world of ever-increasing demands. Moreover, synergy promotes harmonization and avoids a situation where activities under one convention conflict with the objectives of other conventions.<sup>28</sup> One example would be in the area of forest management,

<sup>20</sup> Par. 119 quinquies, WSSD Plan of Implementation.

<sup>21</sup> Article 2 of the UNFCCC, which sets out the ultimate objective of the Convention, states, in part, that the ideal level of greenhouse gas concentrations in the atmosphere (a level that has not heretofore been determined with certainty) “should be achieved . . . to enable economic development to proceed in a sustainable manner”.

<sup>22</sup> Par. 36, WSSD Plan of Implementation.

<sup>23</sup> Par 52 (j), WSSD Plan of Implementation.

<sup>24</sup> Par. 40, WSSD Plan of Implementation.

<sup>25</sup> Par. 119 noviens, WSSD Plan of Implementation.

<sup>26</sup> Art. 2, UNFCCC.

<sup>27</sup> Par. 39 (c), WSSD Plan of Implementation.

<sup>28</sup> See FCCC/SBSTA/2002/INF.16 (Cooperation with Relevant International Organizations: Cross-cutting thematic areas and activities under the United Nations Convention to Combat Desertification, Convention on Biological Diversity and United Nations Framework Convention on Climate Change [Note by the Secretariat]). In the area of carbon sequestration through forestry and land-use activities and how the use of these activities under the Kyoto Protocol could have a positive or negative impact on the objectives of other conventions, see Orlando, B., et al. (2002). *Carbon, Forests and People: Towards the integrated management of carbon sequestration, the environment and sustainable livelihoods*. IUCN, Gland, Switzerland and Cambridge, UK.

which is acknowledged to be a means to combat desertification<sup>29</sup> and also a recognised means of carbon sequestration.<sup>30</sup> Towards this end, a joint liaison group between the secretariats of the UNFCCC, the CBD, and the CCD has been formed.

Links between ozone depletion and climate change, which are "scientifically and technically interrelated",<sup>31</sup> should also be further explored.<sup>32</sup>

#### **4. Improving the science**

The WSSD Plan of Implementation called for the improvement of the techniques and methodologies for assessing the effects of climate change, and encouraged the continuing assessment of those adverse effects by the Intergovernmental Panel on Climate Change (IPCC).<sup>33</sup> While this is directed at the IPCC, Parties to the UNFCCC must ensure that the process of translating the IPCC's findings and recommendations to meaningful action is developed.

While uncertainty will not be completely removed, Parties must continue to find ways of reducing uncertainty. For instance, much work still needs to be done with regard to the timing, magnitude and regional patterns of climate change.<sup>34</sup>

#### **5. Ensuring adequate financial flows**

None of the measures recommended, especially those involving developing countries, can take place effectively without an assurance of adequate and timely financial flows in a transparent manner.<sup>35</sup> In this regard, the role of the Global Environment Facility as the operating entity of the UNFCCC financial mechanism is particularly crucial, as it is also responsible for operationalizing the Least Developed Countries Fund and the Special Climate Change Fund.<sup>36</sup>

#### **6. Public awareness and capacity building**

While States take the lead in negotiations on climate change, all stakeholders must buy into measures to deal with climate change and its effects. Activities that are or will be regulated

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<sup>29</sup> Par. 39 (d), WSSD Plan of Implementation.

<sup>30</sup> See Art. 3.3, Kyoto Protocol.

<sup>31</sup> Par. 37 (d), WSSD Plan of Implementation.

<sup>32</sup> In this regard, par. 6 of Decision 12/CP.8, Relationship between efforts to protect the stratospheric ozone layer and efforts to safeguard the global climate system: issues relating to hydrofluorocarbons and perfluorocarbons (FCCC/CP/2002/7), among other things, encourages Parties "to work towards continuing research and development on technologies that safeguard the ozone layer while at the same time contributing to the objectives of the Montreal Protocol and the [Climate Change] Convention".

<sup>33</sup> Par. 35 (e), WSSD Plan of Implementation.

<sup>34</sup> 5<sup>th</sup> prefatory clause, UNFCCC.

<sup>35</sup> 6<sup>th</sup> prefatory clause, Decision 11/CP.8, New Delhi work programme on Article 6 of the Convention (FCCC/CP/2002/7). For instance, the New Delhi work programme on Article 6 (Education, Training and Public Awareness) of the Convention recognises the need for "adequate financial and technical resources to ensure effective implementation of activities under Article 6, and for strengthening or establishing, as appropriate, national climate change secretariats or national focal points, particularly in developing country Parties".

<sup>36</sup> See Decision 7/CP.7 (Funding under the Convention), found in FCCC/CP/2001/13/Add.1.

under the UNFCCC and the KP touch the lives of all persons, who must thus be made to understand why changes must take place in their way of living, if any support for these measures is to be expected. No drastic change in consumption and production patterns is to take place, unless there is widespread public support. It is thus of utmost importance to bring the issue of climate change down to the public<sup>37</sup> and to ensure public participation in developing adequate responses. In addition, knowledge and understanding must be coupled with a capacity to respond.

## **V. Future challenges**

### **1. The role of ethics**

One of the great achievements of WSSD negotiations is the successful inclusion of ethics in the WSSD Plan of Implementation.<sup>38</sup> It is unquestionable that ethics must play a role in climate change negotiations, with the big question being what role it should play, including how these ethical rules should be fashioned and how these considerations can be built into the climate change regime. This is one area where the IUCN Commission on Environmental Law's Ethics Specialist Group can play a leading role.

### **2. Win-win?**

The 17<sup>th</sup> prefatory clause of the UNFCCC states that "various actions to respond to climate change can be justified economically in their own right and can also help in solving other environmental problems". Do the Parties really believe this? If so, why is undue economic burden still being used as a reason for not undertaking certain measures? Do we need to have more evidence of this? Stakeholders need to demonstrate how this statement can be made into a reality.

### **3. Trade and the environment**

Another theme that dominated WSSD was trade and globalization. One of the UNFCCC's provisions that is often not spoken of is Article 3.5, the last sentence of which states "[m]easures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade". While discussions on the links between trade and measures under the UNFCCC have not been taking centre stage at negotiations, it will do parties well to examine this issue in anticipation of its becoming an emerging cause of discussions in the future.

## **VI. Conclusion**

Ensuring that climate change is dealt with is a huge challenge, but if addressed in a timely manner, need not be an insurmountable one. As the IPCC has said in its Third Assessment Report, "[u]nlike the climate and ecological systems, inertia in human systems is not fixed; it can be changed by policies and the choices made by individuals".<sup>39</sup>

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<sup>37</sup> Art. 6 (a) (iii), WSSD Plan of Implementation.

<sup>38</sup> Par. 5bis of the WSSD Plan of Implementation states: "We acknowledge the importance of ethics for sustainable development".

<sup>39</sup> P. 18, Climate Change 2001: Synthesis Report (Summary for Policymakers), An Assessment of the Intergovernmental Panel on Climate Change, available at [www.ipcc.ch/pub/SYRspn.pdf](http://www.ipcc.ch/pub/SYRspn.pdf)

# Implementing the Kyoto Protocol beyond WSSD at Johannesburg – the Japanese Perspective

*Akio Morishima\**

*After long discussions and intensive examination, and after preparing laws and measures to cope with the issues of global warming, Japan ratified the Kyoto Protocol in June 2002. Since its ratification, the Japanese Government has been making further efforts to achieve the greenhouse gas (GHG) emission reduction targets by the commitment period as set forth in the Protocol. It has decided to take the phased approach from 2002 to 2004, to make the best use of the existing legal system for the realization of a sustainable society, combining the “command and control” method, environmental planning, voluntary commitment by industries, international cooperation and government subsidies. Depending on the reduction achieved during the period, another step will be introduced from 2005 to 2007, keeping in mind the possibility of introducing an environmental tax, despite industry’s strong reservations about such a tax, for its possible adverse effects on Japan’s sluggish economy. For the success of the phased approach taken by the Japanese Government, monitoring and evaluation are very important, and are the foundation upon which existing policy measures will be improved and a better system for the implementation of the Protocol will be identified.*

## I. Introduction

After the adoption of the Marrakesh Accords,<sup>1</sup> global climate change negotiations went into the implementation stage of the Kyoto Protocol. Annex B Parties to the Kyoto Protocol expedited their processes towards achieving the quantified GHGs (Greenhouse Gases) targets inscribed in Annex B so that they could ratify the Protocol by 2002, the 10th anniversary of the adoption of the United Nations Framework Convention on Climate Change (UNFCCC). Japan, as one of the Annex B Parties, prepared a domestic policy to combat global warming and ratified the Protocol on 4 June 2002, with a view to contributing to the implementation of the Protocol in time for the World Summit for Sustainable Development (WSSD) which was held in Johannesburg from August to September 2002.

In this paper, I would like to discuss the essence of the decisions of the Kyoto Protocol, and the development of Japanese domestic policy to achieve the targets set out in the Protocol.

## II. The Kyoto Protocol

Some of the key elements set out in the Kyoto Protocol are (1) the quantified GHG reduction targets, (2) introduction of flexible mechanisms and (3) considerations on land-use, land-use change and the forest sector. In this section, each of these will be discussed in some detail:

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<sup>1</sup> The Marrakesh Accords are a set of 24 decisions adopted by the Conference of the Parties to the United Nations Framework Convention on Climate Change during its 7th session (COP7) held in Marrakesh, Morocco. The Accords may be found in documents FCCC/CP/2001/Add.1 to 3.

## **1. The quantified reduction targets of GHGs**

The Kyoto Protocol set out in its Annex B the differentiated reduction targets of GHG emissions from Annex I Parties,<sup>2</sup> with a view to reducing their total emissions on average by 5% relative to the 1990 levels, during the commitment period from year 2008 to 2012. This was great progress in the efforts towards realizing the Convention’s spirit of “common but differentiated responsibilities”. According to Annex B, Japan is committed to reducing its GHG emissions by 6% on average per year from the 1990 level for the period from 2008 to 2012.

## **2. Flexible mechanisms**

The Protocol introduced three innovative mechanisms in the implementation phase of the protocol. These are:

- (a) the Clean Development Mechanism (CDM),
- (b) Joint Implementation (JI), and
- (c) Emissions Trading (ET).

These three mechanisms, known as the Kyoto Mechanisms, were designed to reduce the costs of curbing emissions of the Parties by providing them with alternatives for meeting their targets.

- (a) The Clean Development Mechanism (CDM)

Under the CDM defined in Article 12, an Annex I Party can receive the certified emission reductions (CERs) when it finances a project that will reduce the net emissions of non-Annex I Parties. This mechanism has the potential to meet the needs of both industrialized and developing countries. The CERs generated by the project will be counted as reductions for the Annex I Party and help them meet the target at a lower cost. At the same time, the non-Annex I Party will be able to obtain capital for technology transfer which will help them achieve sustainable development and, eventually, contribute to the process of global warming mitigation.

- (b) Joint Implementation

Joint Implementation, the idea of which is defined in Article 6, enables an Annex I Party to receive the emission reduction units (ERUs) when it finances a project that reduces the net emissions of another Annex I Party. The ERUs generated by the project will be counted as the reduction of the Annex I Party that conducts the project, but to avoid double counting, the necessary subtraction will be made from the reduction credits of the host Party. This mechanism is most likely to take place in the economies in transition (EITs) where the cost of reduction is lower than the other Annex I Parties. This mechanism has been tested as Activities Implemented Jointly (AIJ)<sup>3</sup> to accumulate more experiences both for investing and hosting Parties.

- (c) Emissions Trading (ET)

Through emissions trading (defined in Article 17), Annex I Parties will be able to acquire the assigned amount units (AAUs) from other Annex I Parties that find the reduction relatively easy. An Annex I Party that would like to exchange their AAUs and other units

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<sup>2</sup> Under the UNFCCC. They are sometimes referred to as the “developed country Parties”.

<sup>3</sup> [unfccc.int/program/coop/aij/aij\\_back.html](http://unfccc.int/program/coop/aij/aij_back.html)

(CERs, ERUs, etc.) will record their transfers and acquisition of these units through national registries.

### **3. Land-Use, Land-Use Change and Forestry (LULUCF)**

Under the Protocol, Parties can take into account net changes in carbon stocks (calculated as emissions minus removals) through carbon sinks and other activities in the LULUCF sector (e.g. afforestation, reforestation and deforestation) in their efforts to meet the reduction targets. The amount of GHGs removed from the atmosphere in the LULUCF sector is called “removal units” (RMUs) and can be used by Annex I Parties at a lower cost, although there are still uncertainties in the method of calculating emissions and removals of GHGs in the sector. According to the Bonn Agreement which sets out the maximum amount for the use of sinks, Japan was allowed to use sinks up to 13 megatons (Mt)<sup>4</sup>, which accounts for around 3.9% of the total emissions in 1990.

## **III. GHG emissions in Japan**

As shown in Table 1, CO<sub>2</sub> comprised nearly 90% of the total GHG emissions in Japan in 1998, of which the power generation and other industrial sectors accounted for half of the total emissions. The other half is composed of emissions from the business/household sector and the transportation sector, which accounted for a quarter of the total emissions respectively.

As for the rate of increase in GHG emissions in 1998 compared with emissions in 1990, only the industrial sector showed a decrease of 3.2%, while the power generation sector, the business and household sectors and the transportation sector all experienced increases of 5.7%, 12.6% and 21.1% respectively.

The increase rate of the total GHG emissions in 1998 was 8% as compared to 1990 and, in order to achieve the target of 6% reduction, Japan needs to implement measures to reduce its GHG emissions by some 14%. It will not be easy for Japan to meet the quantified reduction target for the first commitment period from 2008 to 2012. Naturally, there were serious discussions in the process of deliberation at the Diet on whether to ratify the Kyoto Protocol or not, even though the Protocol itself was adopted in Kyoto.

**Table 1. GHG emissions for Japan in 1998 (CO<sub>2</sub> : 89% of GHG, 1,187 Mt in 1998)**

Electricity generation	7%	Increase – 5.7%
Industries	45%	Decrease – 3.2%
Business/households	23%	Increase – 12.6%
Transportation	25%	Increase – 21.1%

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<sup>4</sup> [unfccc.int/program/coop/aij/aij\\_back.html](http://unfccc.int/program/coop/aij/aij_back.html)

## IV. Measures to combat climate change issues in Japan

In this section, an outline of the measures and laws developed in Japan since COP3 will be discussed.

**Table 2. Japan’s response to the Kyoto Protocol**

Dec. 1997	Global Warming Prevention Headquarters (GWPH) was established in the Cabinet (Cabinet Decision)
1997	Law Concerning Special Measures for the Promotion of New Energy Use
Jun. 1998	Guideline of Measures to Prevent Global Warming (GWPH)
1998	Amended Law Concerning Efficient Use of Energies (Energy Saving Law)
Oct. 1998	Law Concerning the Promotion of Measures to Cope with Global Warming
Apr. 1999	Basic Principles Concerning Measures to Cope with Global Warming (Cabinet Decision)
Jan. 2002	Central Council’s Report on Domestic Measures towards the Ratification of the Kyoto Protocol (GWPH)
Feb. 2002	Principles towards the Ratification of the Kyoto Protocol (Cabinet Decision)
Mar. 2002	The Amended Guidelines on Measures to Prevent Global Warming (GWPH)
Apr. 2002	Amended Law Concerning the Promotion of Measures to Cope with Global Warming

Just after the Kyoto Conference (COP3), the Cabinet organized the Global Warming Prevention Headquarters (GWPH) to deliberate on ways to reduce CO<sub>2</sub> and other GHG emissions generated from various sectors in Japan. In June 1998, GWPH publicized the Guidelines on Measures to Prevent Global Warming, which was essentially a wish-list of all possible measures to be taken, submitted by the ministries concerned. Some 300 measures were listed, without any indication of their priorities.

After the submission of the Guidelines, the Central Environment Council deliberated on a rather comprehensive law, entitled “Law Concerning the Promotion of Measures to Cope with Global Warming”,<sup>5</sup> to prescribe the role of the central government, local governments, industries and citizens in combating global warming.

Following this law, the Cabinet decided on the basic principles concerning global warming.<sup>6</sup> Apart from the laws and decisions directly related to global warming, the Basic Law for Establishing the Recycling-based Society<sup>7</sup> was enacted in June 2000 upon the request of the Central Environment Council. The main issue to be addressed by this law is the management of waste disposal which was becoming one of the most serious problems in both urban and rural areas throughout the country. This new law sets out the principles to reduce waste through the “three Rs – Reduce, Re-use and Recycle”. Based on this law,

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<sup>5</sup> Chikyuondanka Taisaku Suishin Ho, 1998, No. 107.

<sup>6</sup> Chikyuondanka Taisaku Suishin Taiko decided by GWPH in 1998.

<sup>7</sup> Junkangata Shakai Keisei Suishin Kihon Ho, 2000, No. 110.

several laws concerning recycling were enacted to promote the recycling of used cars and electric appliances, etc.

Responding to the rising awareness of global warming issues, the Ministry of International Trade and Industry (MITI), which has the jurisdiction of energy issues, also took various actions. Just before COP3, MITI introduced the Law Concerning Special Measures for the Promotion of New Energy Use,<sup>8</sup> a special law concerning the promotion of innovative technology for renewable energy. After COP3, in accordance with the target set forth in the Kyoto Protocol, MITI also revised the Amended Law Concerning the Efficient Use of Energies,<sup>9</sup> which was originally promulgated just after the oil shortage in 1978. At that time, due to the lack of petroleum, the government tried to persuade or force industries to reduce their consumption of fuel and to change the energy sources from petroleum to natural gas and nuclear power. In 1998, this law was amended with a view to promoting energy efficiency in order to tackle global warming. To attain this objective, the new idea of “Top Runner Method” was introduced to require the private sector to produce products, including cars, electrical appliances and housing materials, using the best available technologies.

The energy issue is closely linked to global warming issues. However, in Japan, while environmental issues are under the jurisdiction of the Ministry of the Environment (MoE), energy-related issues in Japan are controlled by the Ministry of Economy, Trade and Industry (METI, formerly, MITI). This has made the deliberation process time-consuming and caused much inefficiency in decision-making.

By 2000, Japan had made certain progress in preparing for the measures to achieve its reduction target set out in the Protocol with the initiatives of MoE and METI, and was anticipating the decisions to be made at COP6 in the Hague where the Protocol’s rulebook, the operational details to implement the Protocol, was to be discussed and decided. Since the rulebook would affect the ways of commitments of the Parties, the discussion was heated and decisions were postponed to the COP7 in Marrakech, October/November 2001. After Marrakech, most of the Parties, including Japan, started the process of ratification of the Protocol, aiming for the World Summit for Sustainable Development in Johannesburg in August/September 2002.

In Japan, the Central Environment Council submitted a report to the Prime Minister in January 2002 on the implementation of the Kyoto Protocol by national and local governments as well as by the private sector. The GWPH, responding to the report of the Central Environment Council, also published a report on the prerequisites for the ratification of the Protocol. Still there was much opposition from various sectors against the ratification, particularly from heavy industries which discharged a large amount of CO<sub>2</sub>.

In March 2002, GWPH revised the Guideline of Measures to Prevent Global Warming,<sup>10</sup> which was followed by the Amended Law Concerning the Promotion of Measures to Cope with Global Warming submitted by the Ministry of the Environment, based on the Central Environment Council’s report. At that point, the Japanese government was still unsure if consensus could be established among domestic actors to ratify the Protocol, despite the huge efforts made. The ratification was realized in June 2002, after intensive discussions at the Diet.

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<sup>8</sup> Shinenerugi Riyo tou no Sokushin ni Kansuru Tokubetsu Sochi Ho, 1997, No. 37.

<sup>9</sup> Enerugi no Shiyo no Gorika ni Kansuru Horitsu, amended in 1998, No. 96.

<sup>10</sup> Chikyuondanka Taisaku Suishin Ho, amended in 2002, No. 61.

## V. Conclusion

This paper has given an overview of the process of preparation for the ratification of the Kyoto Protocol as well as the possible measures to combat global warming in Japan. It will now discuss the effectiveness of different policy instruments for tackling climate change issues. Traditionally, the command and control approach has been widely used to achieve policy goals. Economic incentives are also used as policy instruments. In the climate change policy, some other new approaches have been introduced.

Many people say that the command and control approach may not be appropriate in order to achieve the GHG reduction target because of the nature of the climate change issues. It is necessary to promote innovative energy-saving technology by urging industries to improve their energy efficiency standards. However, the innovation of technologies cannot be realized only through voluntary efforts of the industry. As described in Section 4 above, the Top Runner Method was introduced in the Amended Law Concerning the Efficient Use of Energies, with a view to raising the energy efficiency standards of products such as automobiles, electric appliances and housing materials. The principle of “three Rs” prescribed in the recycling law also had some effect in promoting the production of products in a resource-saving way. This shows that the command and control approach is still effective as a basis to promote and facilitate advanced technology in the manufacturing sector, which accounts for large CO<sub>2</sub> emissions.

**Table 3. Policy measures to meet the Kyoto Protocol**

Command and control	Top runner method (cars, electric appliances, housing) 3Rs (Reduce, Re-use, Recycle)
Planning	Energy saving plan
Economic incentives	Environmental tax, subsidies
Voluntary commitment	ISO 14001
Labeling and reporting	Eco-label, environmental report
Capacity building	Environmental education
International cooperation	CDM

In addition to the conventional “command and control” method, planning is also useful. The Amended Law Concerning the Efficient Use of Energies requires the industry to draft an energy saving plan for the factories. Based on the plan, both the central and the local governments may provide advice or even finance to promote energy efficiency in the production process.

With regard to the economic incentives, the Japanese government could not reach a consensus on the introduction of the environmental tax. Intensive discussions on this issue are still continuing. The industry sector is unwilling to accept the environmental tax or carbon tax, expressing concerns about possible adverse effects on the economy which has been sluggish and does not show any upward momentum in the past years. Considering the current recession, many companies claim that they cannot shift the tax to consumers by raising the price of products, which means that industry would incur the whole burden introduced by the environmental tax. Before the ratification of the Protocol, the Central

Environment Council as well as other governmental organizations had serious discussions on this issue but the introduction of the tax was not accepted by the public.

On the other hand, subsidies are still a favoured mechanism. The cases of subsidies for purchasing hybrid cars and solar panels are typical examples.

Despite strong opposition from industry, the environmental tax is considered as one of the indispensable measures to achieve the reduction target set out in the Protocol, which is clearly seen in various examples from the countries of Europe. In the Amended Law Concerning the Promotion of Measures to Cope with Global Warming, the phased approach is taken from 2002 to 2004 to make the best use of the existing legal system for the realization of sustainable society. Towards the end of 2004, the Central Environment Council will review and check the emission status to see if emissions are still increasing. If the decrease is not sufficient, another step will be taken from 2005 to 2007, keeping in mind the possibility of introduction of the environmental tax.

With regard to voluntary commitment, which is favoured by the industry, various approaches are taken by various companies. Most large companies in Japan as well as the Ministry of the Environment acquired the certification of ISO-14001. The number of Japanese entities with this certification is the largest in the world. Eco-labeling and environmental reporting are also popular in Japan, which enables consumers and other stakeholders to evaluate the attitude of the company to reduce the impact of its products and activities on the environment.

Japan also places considerable importance on international cooperation in tackling global warming issues, especially in the policy area. At Johannesburg during WSSD, Prime Minister Koizumi made a statement that Japan will contribute more than 4.5 million Japanese yen<sup>11</sup> for the initiation of capacity building programmes internationally, and that international cooperation is one of the important pillars in combating global warming, in the operation of the Kyoto Protocol.

After long discussions, Japan succeeded in preparing laws and measures to cope with global warming issues and was able to ratify the Kyoto Protocol. However, whether Japan will be able to achieve the 6% emission reduction target wholly depends upon how effectively these measures will be implemented in the future. Considering the uncertainty of many elements in the issues relating to climate change and the lack of appropriate technology to tackle global warming, evaluation and monitoring are also very important for the better operation of the system which is to be established in the course of the implementation of measures. To establish a good system of implementation, there is a need to work towards improvement of policy measures based on such evaluation.

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<sup>11</sup> Approximately US\$82,500 at the exchange rate prevailing in 11 November 2002.

# The Kyoto Protocol and the Asian Development Bank

*John A. Boyd\**

*The Environment Policy approved by the Asian Development Bank (ADB) in 2002 supports regional cooperation for the “Framework Convention on Climate Change and its Protocols”. During the last decade, ADB has approved loans dealing with climate change issues; these loans have promoted renewable energy, such as wind farms, and energy efficiency projects utilizing coal bed methane gas. Since 1995, the Asian Development Bank has approved several technical assistance grants dealing with climate change issues, including development of a strategy for greenhouse gas emissions in 12 Asian countries, and financing for several national workshops and two regional workshops on the Kyoto Protocol and the Clean Development Mechanism. An ADB regional technical assistance grant in 1995 to train environmental law professors led to the publication of the two volume book, entitled Capacity Building for Environmental Law in the Asian and Pacific Region: Approaches and Resources. The first of its kind, this book contains a chapter on climate change and the Kyoto Protocol. In 2002, ADB established a technical assistance programme focusing on renewable energy, energy efficiency and climate change.*

## I. Asian Development Bank environment policy of 2002

The Environment Policy approved by the Asian Development Bank in November 2002<sup>1</sup>, states under the heading “Maintaining Global and Regional Life Support Systems” and sub-heading “Responding to Multilateral Environmental Agreements”, that the Framework Convention on Climate Change and its Protocols are among the multilateral environmental agreements (MEAs) which “support [ADB’s] regional cooperative efforts”.

Appendix 6 of the Environment Policy, entitled “Key Multilateral Environmental Agreements”, after first outlining provisions in the “Rio Declaration and Agenda 21”, notes in paragraph 4 that there is a diversity of views among ADB Developing Member Countries with respect to climate change issues:

“Several Asian countries, notably small island countries such as the Pacific islands and the Maldives, and densely populated deltaic countries such as Bangladesh, are concerned that rise in the mean sea level may inundate their coastal areas, leading to loss of livelihoods, agricultural land, infrastructure, and homes. On the other hand, several industrializing developing countries dependent on fossil fuel resources, for example, the People’s Republic of

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<sup>1</sup> Approved by the Board of Directors on 8 November 2002, see [www.adb.org/Documents/Policies/Environment/default.asp?p=policies](http://www.adb.org/Documents/Policies/Environment/default.asp?p=policies)

China, India, and Indonesia are apprehensive that their economic growth would be adversely affected by restrictions on emissions of GHG [greenhouse gas].”

Paragraph 5 of Appendix 6 states that the “Kyoto Protocol (1997) when it enters into force will strengthen the commitments of industrialized countries and the European Communities (“Annex B Parties”) regarding reduction of their GHG emissions”. In this regard the Annex B Parties “are required” in the “first commitment period ... to reduce their annual GHG emissions by specified percentages from their 1990 levels, averaging 5.2%”. By contrast, “Developing Countries (“non-Annex I”) still have no GHG reduction commitments”. Paragraph 5 indicates that the “Kyoto Protocol also sets up mechanisms enabling cooperative implementation of these commitments”, which include “emissions trading, joint implementation and the clean development mechanism (CDM). [Footnote omitted.]”

## II. ADB technical assistance – ALGAS Project

Significant ADB efforts concerning climate change issues began with the Asia Least-cost Greenhouse Gas Abatement Strategy (ALGAS) Project, a regional technical assistance executed by ADB commencing in 1995. The Preface of the *ALGAS Summary Report* states on page one that the ALGAS Project consisted primarily of a “study by 12 Asian countries of their national emissions of greenhouse gases (GHGs) in 1990, their projections of GHGs emissions to 2020, and an analysis of the mitigation options in the different economic sectors”. The 12 countries included in the study have more than one half of the population of the world. They were Bangladesh, the People’s Republic of China, India, Indonesia, Republic of Korea, Mongolia, Myanmar, Pakistan, the Philippines, Thailand, Viet Nam, and the Democratic People’s Republic of Korea (DPRK). The United Nations Economic and Social Commission for Asia and the Pacific (UN-ESCAP) was responsible for executing the DPRK country study with financing from the United Nations Development Programme (UNDP)-Global Environment Facility (GEF).

According to page one of this Preface, the ALGAS Project received “funding of about US\$9.5 million from the Global Environment Facility (GEF) through the United Nations Development Programme (UNDP)”, plus “supplemental funding of US\$592,000” from ADB and co-financing from the Government of Norway and the 12 participating countries. As page one of this Preface notes, “[w]ith a budget of more than US\$10 million, this is the largest regional technical assistance project executed by ADB”.

A 21 page document entitled *ALGAS in Buenos Aires: What it means to the Fourth UNFCCC Conference of the Parties*, published in about 1998 by ADB, UNDP and GEF, listed on pages one and two, the following “[p]rincipal achievements” of ALGAS:

- Establishing the institutional, technical, and human capacity in the participating countries to address the challenges of quantifying and mitigating the rapidly growing greenhouse gas emissions of the Asia region;
- Assisting the countries in the preparations of their 1990 baseline and 2020 projected national inventories of GHG sources and sinks in accordance with or surpassing the standards established by the Inter-governmental Panel on Climate Change (IPCC);
- Identifying least-cost options and formulating national action plans for abatement of future GHGs;
- Developing national portfolios of effective technical assistance and investment projects to help reduce growth of future GHG emissions.

Under the heading “Building Capacity”, this document indicates on page two that the ALGAS Project has accomplished the following:

- trained over 175 national experts in the IPCC inventory methodology;
- trained national experts on the measurement of methane emissions from rice paddies and livestock;
- provided instrumentation, measurement equipment, training and computers for establishing GHG inventory data;
- assisted countries in reviewing and improving their national inventories on GHG sources and sinks.

*ALGAS in Buenos Aires* further indicates that the ALGAS Project helped “to identify, formulate and present for funding 82 least-cost GHG abatement projects which are consistent with national development goals” including potential projects for GEF, the Clean Development Mechanism, and Activities Implemented Jointly.

The ALGAS Project financed publication in 1998 of reports for each of the 12 countries except DPRK plus a report entitled “Greenhouse Gas Abatement Projects” and the “Summary Report”. These reports are available in hard copy and CD-ROM.

### **III. Capacity building for environmental law training in the Asian and Pacific region**

Some ADB technical assistance projects have multi-faceted capacity building objectives which are not focused on the Kyoto Protocol but which nevertheless deal directly with the Kyoto Protocol. The ADB regional technical assistance project entitled “Capacity Building for Environmental Law Training in the Asian and Pacific Region”, approved in the amount of US\$600,000 in 1995, is an example of such multi-faceted technical assistance. To strengthen the environmental expertise of law professors in Asia and the Pacific, ADB welcomed a request from IUCN together with the Faculty of Law of the National University of Singapore and the United Nations Environment Programme (UNEP) and others to teach intensive environmental law courses to law professors in the Asian-Pacific region, so as to build endogenous capacity in environmental law. In December of 1995 ADB provided a US\$600,000 grant which financed two such courses for 63 law professors from 15 countries spanning the globe from Pakistan to the Fiji Islands.

These courses were conducted in the summers of 1997 and 1998 at the Faculty of Law of the National University of Singapore, which, as a result of this grant established the Asia-Pacific Centre for Environmental Law (APCEL) to undertake capacity building in environmental law. The courses included panel discussions of climate change issues.

Materials developed for these courses were subsequently used to develop an environmental law book with a chapter on climate change, including analysis of the Kyoto Protocol and flexibility mechanisms under the Kyoto Protocol. This two volume book, entitled *Capacity Building for Environmental Law in the Asian and Pacific Region: Approaches and Resources*, was edited by Professors Donna G. Craig, Nicholas A. Robinson, and Koh Kheng-Lian and published in 2002 by ADB.

## **IV. Capacity building for implementation of the Kyoto Protocol and the Clean Development Mechanism**

In 1999, ADB approved a US\$200,000 grant for technical assistance entitled “Capacity for Implementation of the Kyoto Protocol and the Clean Development Mechanism”. The primary product of this technical assistance was a series of papers by established scholars in the field, published by ADB in 2000 in a 130 page book edited by Dr Prodipto Ghosh and entitled *Implementation of the Kyoto Protocol*. These papers fall under five headings: (i) A Legal Review of the Key Provisions and Background to the Kyoto Protocol and the Buenos Aires Plan of Action, (ii) Estimation of the Global Market Potential for Cooperative Implementation Mechanisms under the Kyoto Protocol, (iii) A Simple Economic Analysis of Some Issues Included in the Buenos Aires Plan of Action, (iv) The Clean Development Mechanism and Sustainable Development: An Economic Analysis, and (v) Baseline Determination for Greenhouse Gas Abatement by the Clean Development Mechanism and Joint Implementation under the Protocol. These papers were relied upon for presentations in several national workshops and two regional workshops held in Asia.

## **V. Renewable Energy, Energy Efficiency, and Climate Change (REACH)**

In early 2002, ADB established a programme on Renewable Energy, Energy Efficiency, and Climate Change (REACH) to assist Developing Member Countries (DMCs) in accessing sustainable energy and dealing with climate change uncertainties. In an ADB pamphlet published in October 2002, REACH is described as a programme designed “to promote the use of renewable energy and energy efficient technologies, and at the same time mitigate greenhouse gas (GHG) emissions”. REACH is supported by the governments of Canada, Denmark and the Netherlands.

According to this pamphlet, the “Canadian Cooperation Fund on Climate Change, a US\$3.2 million project, is assisting and engaging DMCs at the programming and policy levels to manage and abate climate change”. For example, “[p]riority is being given to the People’s Republic of China (PRC) and India for reducing GHG emissions, Indonesia for carbon sequestration, and the Pacific island countries for adapting to climate change”.

The pamphlet indicates that the Danish Cooperation Fund for Renewable Energy and Energy Efficiency in Rural Areas is providing US\$3.5 million with the objective of “reducing poverty and improving living conditions for communities underserved by national power grids and deprived of other forms of modern energy”. Some of the projects under consideration for such funding include the following:

- Renewable Energy Development in Small Towns and Rural Areas (Mongolia);
- Small Hydropower Plants (Cambodia);
- Mini-Hydropower Plants (Viet Nam);
- Renewable Energy for Rural Electrification and Livelihood Development Pilot Project in Southern Tagalog Region (Philippines);
- Promotion of Renewable Energy and Energy Efficiency for Sustainable Development (Pacific island countries).

The Netherlands Cooperation Fund for Promotion of Renewable Energy, Energy Efficiency, and Greenhouse Gas Abatement (PREGA) is, as stated in this October 2002 ADB pamphlet, a three year, US\$5 million technical assistance project designed to “promote investment in renewable energy, energy efficiency, and greenhouse gas abatement (REGA)

technologies that will increase access to energy services by the poor, realize other strategic development objectives, and help reduce GHG emissions”. According to the pamphlet, PREGA “will generate a pipeline of PREGA investment projects to be considered for financing through commercial, multilateral, and bilateral sources, including specialized treaty-linked mechanisms, such as the Global Environment Facility and CDM”. The 15 DMCs participating in PREGA are Bangladesh, Cambodia, People’s Republic of China, India, Indonesia, Kazakhstan, Kyrgyzstan, Mongolia, Nepal, Pakistan, the Philippines, Samoa, Sri Lanka, Uzbekistan, and Viet Nam.

ADB has a targeted REACH programme in the Pacific since key economic sectors of these DMCs have similar climate and weather sensitivities. As stated in another October 2002 ADB pamphlet entitled *Renewable Energy, Energy Efficiency, and Climate Change in the Pacific*, the ADB Climate Change Adaptation Program for the Pacific (CLIMAP) is designed to assist “Pacific DMCs anticipate, prevent, and address the adverse effects of global climate change – particularly rising sea levels and extreme weather events in coastal and marine areas”. As described in this October 2002 pamphlet dealing with the Pacific, a parallel ADB programme focuses on Renewable Energy and Energy Efficiency in the Pacific (REEP), particularly through three key activities:

- “Identifying major gaps and key market, policy, financial, and technical barriers to renewable energy and energy efficiency adoption in the Pacific;
- Identifying and developing one pilot project in each of the three types of Pacific island countries:
  - High poverty level, low population density, abundant in natural resources and good growth prospects
  - Low poverty level, moderate/good natural resources, and good growth prospects
  - High population density, limited potential for self-sustained economic growth
- Conducting an information dissemination and capacity building program based on past and ongoing renewable energy and energy efficiency programs as well as on information gathered from the pilot projects.”

This REEP programme is financed by the Danish Cooperation Fund on Renewable Energy and Energy Efficiency in Rural Areas and Market Towns, as described above.

## **VI. ADB loan financing for renewable energy and energy efficiency**

In addition to assisting its DMCs through grants focused on renewable energy, energy efficiency and climate change, ADB has also provided loan financing for projects under these three headings. For example, in 2000, ADB provided a loan of US\$58 million to construct three grid-connected wind farms with power generation capacity ranging from 24 to 30 megawatts in three provinces of the PRC. GEF is providing cofinancing of US\$6 million for this project to help with removing barriers to such energy sources and with institutional strengthening. In another PRC project, for Shanxi Environment Improvement, ADB provided US\$102 million for three sub-projects, approved in 1999, for coal gasification to replace coal burning with cleaner fuel, thus reducing GHG emissions by recovering and utilizing coal bed methane gas. This Shanxi Environment Improvement Project also provided district heating to reduce inefficient dispersed coal burning.

Similar efforts have been undertaken in other ADB DMCs. For example, in India ADB approved a US\$100 million loan in 1996, which initially was designed to support biogas

cogeneration, wind power, and solar thermal development but which subsequently assisted in the utilization of wind power.

## **VII. Summary and conclusion**

The 2002 ADB Environment Policy specifically contemplates further responses by ADB to the challenges presented by the Kyoto Protocol. One recent ADB technical assistance activity focused on “Capacity Building for Implementation of the Kyoto Protocol and the Clean Development Mechanism”. ADB involvement in climate change activities began in 1995 with the ALGAS Project, supported by grants with a value of more than US\$10 million administered by ADB. Two ADB publications have dealt directly with capacity building for the Kyoto Protocol. Currently ADB is administering grants of US\$3.2, US\$3.5 and US\$5 million respectively for renewable energy, energy efficiency and climate change activities in the Asian and Pacific region. Thus, ADB has approved utilization of technical assistance grant funds for climate change activities, primarily for capacity building purposes, in excess of US\$21 million since 1995. In addition ADB loans in amounts exceeding hundreds of millions of US dollars have financed projects to achieve renewable energy and energy efficiency objectives. ADB also regularly participates in international meetings and conferences where the agenda of the Kyoto Protocol is advanced.

Through collaborative efforts spanning the globe from Europe, North America, Asia and the Pacific, ADB has accomplished a great deal since 1995. However, a great deal more will need to be done to enable those supporting the Kyoto Protocol to achieve its significant goals, including a reduction by most of the developed countries in the world, (known as Annex B countries), of annual GHG emissions by an average of 5.2 percent below their 1990 levels during the first commitment period from 2008–2012.

# Energy law's potential contributions to stabilize climate

*Nicholas A. Robinson\**

*The integration of energy law and environmental law is essential for human society to meet the goal of sustainable development envisioned at the 1992 UN Conference on Environment and Development in Rio de Janeiro. Until today, energy law's emphasis has been on ensuring an adequate supply of energy, rather than maximizing efficiency and equity in use among all users. As a result, energy law has developed without much regard for the negative environmental impacts of energy generation.*

*Although the 1972 UN Conference on the Human Environment in Stockholm and the 1992 UN Conference on Environment and Development in Rio have addressed energy and climate issues, it is not until the 2002 World Summit on Sustainable Development in Johannesburg that energy efficiency was explicitly promoted.*

*The Johannesburg Plan of Implementation sets forth priority recommendations for improving access to reliable and affordable energy services, while recognising at the same time that access to energy is essential to providing other basic services, such as supply of clean water, lighting, information access and refrigeration. For the realization of these recommendations however, public resources must be deployed to create renewable energy systems, and basic environmental law principles must be applied to energy law, such as reuse of energy, waste avoidance, effective Environmental Impact Assessment and public participation.*

One of the principal analytic tools of ecosystem management is to measure the flow of energy through living and inanimate systems. Solar energy fuels life in the biosphere. It is recycled over centuries in the fossil fuels and over decades in trees. The process of photosynthesis channels energy into resources that sustain all life on earth. These natural laws are only dimly perceived, however, in the utilitarian human laws that govern how short-term energy is supplied to our human economy. As contemporary energy law has developed the past century, it has not had occasion to integrate such ecological assessments into its fundamental norms or legal framework. It is the challenge of the coming generation to effect this integration. Without the integration of energy law and environmental law, human society cannot meet the goals for sustainable development envisioned at the 1992 UN Conference on Environment and Development in Rio de Janeiro.

Reformation of energy laws will be an essential element of the transition to attain sustainability within national and global economies. Energy law has developed as a disjointed body of statutes and treaties. It is a variant of public administrative law, characterized by a lack of basic principles or integrative systems. Its costs are underwritten by application of public finance laws. It has evolved incrementally over time, and is essentially instrumental. Energy law facilitates the development of whatever energy system technology makes available, and its short-term goal is to supply electricity or basic fuels as each society requires.

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Energy law’s emphasis has been on ensuring an adequate supply of energy, rather than providing energy systems with an emphasis on maximizing efficiency and equity in use among all users.<sup>1</sup> As a result, energy law has developed without much regard for the negative environmental impacts of energy generation. Most nations have been obliged to compensate by enacting statutes, and negotiating several treaties,<sup>2</sup> to cope with the economic “externalities” generated by the energy sector: e.g. air pollution including “acid rain”, significant solid and hazardous waste products from mining or combustion of coal or use of enriched uranium, discharge of waste heat from cooling systems into aquatic ecosystems, loss of habitat and soil salting in the wake of hydroelectric dam development, and challenges of siting high tension power lines.

Energy law has little experience with the sort of challenges that it faces with implementation of agreements such as the reduction of carbon dioxide emissions required under the Kyoto Protocol, or the application of the environmental impact assessment to energy sector projects, as is required by national EIA laws<sup>3</sup> or the 1998 Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters.<sup>4</sup> Because society favoured systems that supplied energy exclusively through economic sector preferences, energy law has not needed to examine how energy suppliers could better take economic or ecological responsibility for the adverse effects of their processes. In most places, the supply of energy is a near monopoly, and thus societies have established regulatory systems to ensure that the pricing of energy is balanced between (a) generating fees sufficient to pay for the investment in building and operating the energy systems, (b) providing a “reasonable” profit to the governmental, parastatal, or private enterprises that build and operate the energy systems, and (c) ensuring that the public can afford to pay the fees and showing that the fees appear fair to the users.

Historically, the regulatory systems established to meet these energy objectives have constituted an independent sector of government and the economy. Little attention has been devoted to how the energy sector relates to the environmental. The hydroelectric systems have been obliged to consider alternative uses of rivers and lakes, because these resources also serve navigation and fishing interests. For instance, during the Progressive Period in the United States of America, Congress provided in Section 10 of the Federal Power Act of 1920<sup>5</sup> that a federal

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<sup>1</sup> This paper does not focus on the property law regime for the ownership of natural resources, such as fugacious fuels, like oil and gas, or hard minerals, such as coal or uranium, or the property regimes providing access to land sites or water bodies. Property rights often are a basic element of the costs determinative of which energy sources are developed to provide energy. Rather, “energy law” is used here to refer to the framework of public policies and administrative law that governs the generation, provision and distribution of energy to users. Energy law extends from customary practices, such as an individual charcoal dealer in a developing nation, to the corporate enterprises generating electricity, whether owned by the State, or in a parastatal form, or privately owned.

<sup>2</sup> See e.g., the 1979 Geneva Convention on Long-Range Transboundary Air Pollution, and its Protocols. 1302 U.N.T.S. 217, 18 I.L.M. 1442.

<sup>3</sup> Principle 17 of the Rio Declaration on Environment and Development provides that “Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority”. UN Doc. A/CONF.151/26, 31 I.L.M. 874 (1992). For the oldest application of EIA, see the environmental impact assessment in the U.S.A. required under the National Environmental Policy Act (NEPA), 42 U.S.C. 4321, et seq., and its regulations at 40 C.F.R. Part 1500.

<sup>4</sup> Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, in force from 30 October 2001—see [www.unece.org/env/pp/](http://www.unece.org/env/pp/)

<sup>5</sup> Federal Power Act, U.S.C. Ch. 285; 41 stat. 1063, 1068 (1920).

regulatory agency<sup>6</sup> had to balance the competing demands of water before it could decide whether or not to authorize a new hydroelectric power facility to interfere with other water uses. This has been held to require a study of alternative sources of energy that might obviate the need for the proposed hydroelectric facility.<sup>7</sup> Out of such specific licensing proceedings, experience was gained that helped Congress to enact a generic administrative procedure for weighing these sorts of alternatives. In consequence, Congress enacted the National Environmental Policy Act of 1969 (NEPA), which first established environmental impact assessment procedures.<sup>8</sup>

Environmental impact assessment is now widely used by many nations to determine what sort of new energy systems should be licensed. Unfortunately, far too often the EIA process is treated as a routine exercise, without a thorough study of environmental effects or a valid consultation with potentially affected stakeholders.<sup>9</sup> Even where EIA is well established in national law, it is not used to measure the ways to avoid greenhouse gas emissions, or to sequester any carbon dioxide that may be emitted. EIA procedures also are rarely, if ever, applied to existing energy supply regimes, such as the refining, distribution and use of petrol.

Indeed, so effective are society's vested economic interests in the use of petroleum as the preferred energy source that the nations producing oil and gas prevented any sustainable use energy recommendations from being included in the action plan (*Agenda 21*) adopted at the UN Conference on Environment and Development in 1992 in Rio de Janeiro.<sup>10</sup> The only references in *Agenda 21* were to the need to use energy sources more efficiently and environmentally in the context of the transportation sector.<sup>11</sup>

This does not mean that *Agenda 21* was irrelevant to energy and climate issues. It also had a chapter on "safe and environmentally sound management of radioactive wastes",<sup>12</sup> recognising that this one fuel cycle had long-term and dangerous consequences for human health and the environment. In addition, a number of the chapters of *Agenda 21* implicitly address an energy law agenda. For instance, between the 1972 United Nations Conference on

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<sup>6</sup> Initially this was the Federal Power Commission, which was reconstituted during the presidency of Jimmy Carter as the Federal Energy Regulatory Commission.

<sup>7</sup> *Scenic Hudson Preservation Conference v. Federal Power Commission*, 354 F. 2d.608 (2d Cir. 1965), cert. den. 384 U.S. 941 (1966). More recently, IUCN participated in the preparation of the report of the World Commission on Dams, which outlines the competing factors and need for better environmental impact assessment and public participation in the development of new hydroelectric facilities around the world.

<sup>8</sup> NEPA is at 42 USC 4321.

<sup>9</sup> See, e.g. *Shehla Zia and Others v. WAPDA*, PLD 1994, SC 693 (1994), in which the Pakistan Supreme Court ordered that high tension electric lines not be placed over congested urban residential areas without undertaking health impact assessments first. Programmatic EIAs were used to assess potential exploitation of coal resources in the northern plains of the USA or to determine whether to permit oil and gas exploration in the outer continental shelf of the USA during the energy crisis of the 1970s; see for instance, *Sierra Club v. Morton*, 510 F. 2d 813 (5<sup>th</sup> Circuit 1975). The use of EIA by international organizations such as the World Bank, has been timid and of limited value in ensuring sustainable environment decisions.

<sup>10</sup> *Agenda 21*, UN Conference on Environment and Development, UN Doc.A/CONF.26 (vols. I – III) (1992).

<sup>11</sup> *Agenda 21*, Para. 7.5 recommended "promoting sustainable energy and transport systems in human settlements", and Paras 7.46 to 7.52 elaborated on this recommendation, noting that "[t]ransport accounts for about 30 percent of commercial energy consumption and for about 60 per cent of total global consumption of liquid petroleum. In developing countries, rapid motorization and insufficient investments in urban-transport planning, traffic management and infrastructure, are creating increasing problems in terms of accidents and injury, health, noise, congestion and loss of productivity similar to those occurring in many developed countries. All of these problems have a severe impact on urban populations, particularly the low-income and no-income groups". Para 7.48.

<sup>12</sup> *Agenda 21*, Chapter 22.

the Human Environment in Stockholm and the 1992 UN Conference on Environment and Development in Rio de Janeiro, environmental law had emerged as the fastest growing field of law at both national and international levels (it still is today). The success that environmental regulation has had in abating pollution and enhancing environmental quality throughout states such as Singapore, the UK, the USA, Canada, Australia, or the Netherlands stands in stark relief with the acute and still growing threats to public health from air, soil and water pollution in urban centres such as Bangkok, New Delhi, Mexico City or Beijing. To combat the environmental degradation trends, *Agenda 21* called for rapid development of further environmental law.<sup>13</sup>

Experience with environmental laws illustrates how appropriate legal systems can foster progressively wider uses of clean energy and transportation systems. Case studies of these experiences are the best evidence that the practical measures needed to implement the Kyoto Protocol of the UN Framework Convention on Climate Change have in fact been field tested and are ready to be employed to stabilize greenhouse gas emissions. For instance, air pollution control legislation commonly establishes health standards, monitors where those standards have not been attained, and then requires concrete and measurable steps to curb air emissions. Conversion to clean fuels and rigorous use of energy efficiency technology readily emerges as a cost-saving and immediately available means to comply with the strict air pollution laws. Laws requiring the public disclosure of all air emissions, and the media coverage of those emissions, have further stimulated companies and governmental authorities alike to seek to cut emissions, rather than receive the censure of the public.

In addition to air pollution issues, environmental impact assessments (EIA) feature in environmental laws and are now a mature legal system established in all regions. EIA techniques have been used to promote the study of alternative means for supplying energy and meeting transportation needs. Since the legal framework for EIA is in place, EIA can and should be more conscientiously used for requiring the study of clean energy options. The retarding factor in EIA is often the lack of government will to use it toward these ends, coupled with the failure to permit public oversight or enforcement of the EIA process in many states. The success of public participation in the implementation of the National Environmental Policy Act (NEPA) in the USA demonstrates the value of such oversight in promoting sound energy practices. *Agenda 21* was silent on how to implement EIA, but implicit in Principle 17 is that EIA's examination of "alternatives" to proposed government actions must entail examining alternative means to promote energy efficiency and avoid exacerbating green house gas emissions.

Many experts in energy and environmental law recognised that these sorts of implicit energy recommendations in *Agenda 21* would not by themselves be strong enough to reverse current unsustainable patterns of energy use. The UN Development Programme, with commendable support from Sweden, and the UN World Energy Council and the UN Department of Economic and Social Affairs in the UN Secretariat, undertook preparation of the *World Energy Assessment*.<sup>14</sup> Released in September of 2000, this comprehensive report assessed the fuel cycles used to generate energy supplied, and their competing values and problems. UNDP Administrator, Mark Malloch Brown, called the report "a real landmark". It combined a clear and cogent assessment of the current world energy situation with a detailed analysis of the implications for the poor and the environment. It shows how and why the pursuit of economic growth and environmental protection can be mutually reinforcing goals rather than conflicting ones. And it provides a wide range of provocative but feasible

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<sup>13</sup> *Agenda 21*, Chapter 8.

<sup>14</sup> *World Energy Assessment*, New York, UNDP, ISBN: 92-1-126126-0 (2000).

recommendations on how to address these overreaching problems.<sup>15</sup> The *World Energy Assessment* became one of the major contributions to the deliberations of the 9<sup>th</sup> Session of the UN Commission on Sustainable Development, which examined the role of energy in sustainability. Ironically, the UNDP discontinued most of its work to promote an understanding of the *World Energy Assessment* in the same year that the World Summit on Sustainable Development convened in Johannesburg.

In the same time-frame, members of the International Union for Conservation of Nature and Natural Resources (IUCN), including the Pace University Center for Environmental Law and its Energy Project,<sup>16</sup> brought the same issues to the governing assembly of IUCN. At the first World Conservation Congress in Montreal in 1996, the members of IUCN mandated the Union's Commission on Environmental Law to examine how energy laws could be adapted to ensure environmental protection and advance sustainable development.<sup>17</sup> It was clear to IUCN's Commission on Environmental Law that the objectives of the 1992 United Nations Framework Convention on Climate Change<sup>18</sup> could not be achieved without building the sustainability policies adopted at the UN Conference on Environment and Development (UNCED)<sup>19</sup> in 1992 into the energy laws of each nation. Since 1996, an IUCN Commission Legal Specialists' Group on Energy Law and Climate has assiduously researched and defined an agenda for the new generation of energy laws, and provided expert advice for the 9<sup>th</sup> session of the UN Commission on Sustainable Development in its deliberations in New York.

Largely because *Agenda 21* contains no explicit chapter on energy, the UN Commission on Sustainable Development (CSD) devoted its 9<sup>th</sup> Session in 2002 to an examination of the role that energy plays in sustainable development. As an Observer in the UN General Assembly, IUCN has a right and duty to participate in such meetings to provide its expertise to its State Members and other UN Members. Consequently, the IUCN-CEL Specialist Group on Climate and Energy Law was invited to participate in a one-week experts' consultation at the UN headquarters in New York in early 1999, and subsequently in the CSD's deliberations.<sup>20</sup> Many of the positions that the IUCN Specialist Group advanced had earlier been presented to the "Millennium Conference on Energy, Environment and Clean Mobility", in Geneva, Switzerland, in January of 2000. IUCN's Director General, Dr Marietta Koch-Weser, presented the keynote address to that Conference, setting out the fundamental link between the fields of energy and nature conservation. This Conference was also a significant input for the 9<sup>th</sup> session of the CSD.

In late 2000, IUCN (through its Energy Law Specialist Group) and the International Council of Scientific Unions (ICSU) presented a joint paper to the Commission on Sustainable Development in a dialogue that had been scheduled to explore ideas of achieving equitable access to cleaner energy, exploring choices for producing, distributing and consuming energy, and developing public-private partnerships to achieve sustainable energy for

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<sup>15</sup> Statement by Mark Malloch Brown at the luncheon marking the launch of the *World Energy Assessment*, New York, September 20, 2000 (UNDP).

<sup>16</sup> The leading academic study on the unintended environmental harm produced by established energy systems was prepared by the Pace Energy Project, see R. Ottinger, *et al.*, *The Environmental Costs of Electricity*. (Dobbs Ferry, New York, Oceana Publications, 1990).

<sup>17</sup> IUCN 1<sup>st</sup> World Conservation Congress, Resolution 1.41 (Montreal Canada, 1996); this mandate was renewed at the 2<sup>nd</sup> World Conservation Congress in Amman, Jordan, in 2000; see Mandate of the Commission on Environmental Law, Annex IV to the Proceedings of the 2<sup>nd</sup> WCC (IUCN, 2001).

<sup>18</sup> UNFCC, 1771 UNTS 107; 31 I.L.M. 849(1992). See [unfccc.int/resource/conv/conv.html](http://unfccc.int/resource/conv/conv.html)

<sup>19</sup> Rio Declaration on Environment and Development, UN Doc.A/CONF.15126 (1992), and *Agenda 21*, UN Doc.A/CONF.26 (volumes I-III) (1992), reprinted with annotations in N.A. Robinson, *Agenda 21: Earth's Action Plan* (Dobbs Ferry, New York, Oceana Publications, 1993).

<sup>20</sup> Professor Richard L. Ottinger (USA), Prof. David Hodas (USA), and Ambassador Ben Mudho (Kenya) comprised the team present for the meetings.

transport, and transport planning choices.<sup>21</sup> IUCN's Energy Law Specialist Group participated, by invitation, in an inter-sessional Energy Expert Group meeting (26 February–2 March 2001) convened before the 9<sup>th</sup> session of the CSD, to explore alternative energy paths to enhance sustainable development.<sup>22</sup>

The recommendations of the 9<sup>th</sup> CSD provided the foundation for the decisions taken in the Preparatory Committee for the World Summit on Sustainable Development, and ultimately reflected in the WSSD's Johannesburg Plan of Implementation (adopted 4 September 2002). While the details are not set forth in the Plan of Implementation, as discussed below, many of the most salient issues are set forth by the IUCN Energy Law Specialist Group in a new book<sup>23</sup> on the legal issues entailed in the implementation of the Energy Recommendations of the Johannesburg Plan of Implementation.

These recommendations, and the IUCN commentary, will need to be applied in the reform of energy law systems world-wide. Perhaps the greatest political events made in Johannesburg at the time of the WSSD were the decision by Canada and the tentative declaration by the Russian Federation to ratify the Kyoto Protocol.<sup>24</sup> These ratifications will be sufficient to bring the Kyoto Protocol into force, but the practical fate of the Kyoto Protocol depends on how it will be implemented. Ratifications alone will not implement the Protocol; the legal frameworks for implementation remain to be put in place. The challenge will be to integrate environmental and energy law into a synthesis that furthers sustainable energy generation and use.

The significance of this challenge in reforming energy policy and law is a theme that transcends the event of the World Summit on Sustainable Development in 2002. It constitutes one of the fundamental challenges for the next few decades. The foreign policies of many nations have come to recognize that if the objectives of the Kyoto Protocol are to be realized, they would need to undertake significant reductions in greenhouse gas emissions. Even where national leaders are unwilling to reach these conclusions, as in the USA currently, political subdivisions have taken decisive action, as in California's initiative to require measurable cut-backs on motor vehicle greenhouse gas emissions as a condition for their sale in California and legislation to establish specific carbon dioxide reduction targets by New Jersey, New Hampshire, Massachusetts (and under active consideration by others).<sup>25</sup> The growing consensus of nations in support of advancing recommendations for energy law reform provide the basis for moving from study to implementation of the recommendations.

The delegates to the Preparatory Committee of the WSSD built on this growing body of recommendations and the decisions of the 9<sup>th</sup> session of the CSD. Although no agreement could be reached on binding, or even merely recommended time-tables and targets for

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<sup>21</sup> IUCN-ICSU CSD-9 Dialogue Paper (November 2000).

<sup>22</sup> See [www.un.org/esa/sustdev/csd9/csd9\\_2001.htm](http://www.un.org/esa/sustdev/csd9/csd9_2001.htm)

<sup>23</sup> Adrian Bradbrook and Richard L. Ottinger, (Eds.), *Energy Law and Sustainable Development* (IUCN Environmental Law Programme Environmental Policy and Law Paper No. 47, IUCN 2003).

<sup>24</sup> Kyoto Protocol to the United Nations Framework Convention on Climate Change, UN Doc. UNFCCC/CP/1997/L.7/Add.1(10 Dec. 1997), in final form in the report of the Third Conference of the Parties, UN Doc. UNFCCC/CP/1997/7/Add.2.

<sup>25</sup> New York just announced its intention to lead a regional coalition of Northeastern states ranging from Maryland to Maine to establish joint carbon dioxide emission reduction targets. In addition more than 430 cities, towns and counties around the world have joined the International Council for Local Environmental Initiatives (ICLEI), many of which have adopted their own carbon dioxide emission reduction programmes, e.g., Toronto, Canada; Seattle, Washington; Salt Lake City, Utah and Portland, Oregon.

abating existing green house gas emissions or for averting new emissions, it is nonetheless significant that the Johannesburg Plan of Implementation does set forth the energy recommendations that were missing from Rio's *Agenda 21*. Energy policy is now a core part of the agenda for sustainable development.

On 4 September 2002, the WSSD agreed that sustainable development requires a re-focusing of energy. First, in the Johannesburg Declaration on Sustainable Development the delegates included access to energy as a basic requirement for human dignity,<sup>26</sup> and also noted that "the global environment continues to suffer. ... the adverse effects of climate change are already evident".<sup>27</sup> In this political declaration, the nations at the WSSD committed themselves "to the Johannesburg Plan of Implementation and to expedite the achievement of the time-bound, socio-economic and environmental targets contained therein".<sup>28</sup>

The final core provisions of the Johannesburg Plan of Implementation were negotiated and agreed upon in paragraph 8 of the text adopted on 4 September 2002. The nations agreed to take joint actions "to improve access to reliable and affordable energy services ... sufficient to facilitate the ... goal of halving the proportion of people in poverty by 2015".<sup>29</sup> The nations expressly recognize that provision of access to energy is basic to providing other basic services, such as power to pump and supply clean, potable water, provide lighting and information access to facilitate education, and refrigeration to enable the keeping of medicine inventories. In order to meet this ambitious target, the nations have agreed on seven priority recommendations:

- (a) "Improve access to reliable, affordable, economically viable, socially acceptable and environmentally sound energy services and resources." This entails giving priority attention to rural electrification and decentralized energy systems, which in places like much of Africa are likely to be not part of a centralized national power grid. It requires accelerated research into hydrogen fuel cell technology, and wider use of wind and solar power, or isolated small head hydroelectric power in mountain areas. To accomplish such results, nations must engage in "intensifying regional and international cooperation in support of national efforts, including through capacity-building, [and] financial and technological assistance."<sup>30</sup>
- (b) "Improve access to modern biomass technologies." This entails using what is now agricultural or silvicultural waste as an energy asset. Biomass is to be considered for commercial operation, and use in rural areas.<sup>31</sup>
- (c) "Promote a sustainable use of biomass and, as appropriate, other renewable energies through improvement of current patterns of use, such as management of resources, more efficient use of fuelwood and new or improved products and technologies."

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<sup>26</sup> Paragraph 17 of the Johannesburg Declaration on Sustainable Development, UN Doc. A/CONF.1999/L.6/Rev. 3 (4 September 2002), states that: "We welcome the Johannesburg Summit focus on the individuality of human dignity and are resolved through decisions on targets, timetables and partnerships to speedily increase access to basic requirements such as clean water, sanitation, energy, health care, food security and the protection of biodiversity. ..."

<sup>27</sup> Paragraph 13 of the Johannesburg Declaration on Sustainable Development, *Ibid.*, states that: "The global environment continues to suffer. Loss of biodiversity continues, fish stocks continue to be depleted, desertification claims more and more fertile land, the adverse effects of climate change are already evident, natural disasters are more frequent and more devastating and developing countries more vulnerable, and air, water and marine pollution continue to rob millions of a decent life".

<sup>28</sup> Para. 31 of the Johannesburg Declaration on Sustainable Development, *Ibid.*.

<sup>29</sup> The Johannesburg Plan of Implementation, UN DocA/CONF.199/L1 (4 September 2002), see [www.johannesburgsummit.org/html/documents/summit\\_docs/2309\\_planfinal.htm](http://www.johannesburgsummit.org/html/documents/summit_docs/2309_planfinal.htm)

<sup>30</sup> *Id.*, Para. 8(a).

<sup>31</sup> *Id.*, Para. 8(b).

- (d) "Support the transition to the cleaner use of liquid and gaseous fossil fuels, where considered more environmentally sound, socially acceptable and cost-effective."<sup>32</sup> Whether any fossil fuels can be used without exacerbating greenhouse gas emissions is a serious question. The previous investments in fossil fuel energy systems make it clear that innovative legal and economic measures will be needed to effect this transition, but the Johannesburg Plan of Implementation is silent on this aspect.
- (e) "Develop national energy policies and regulatory frameworks that will help to create the necessary economic, social and institutional conditions in the energy sector"<sup>33</sup> in order to meet the goals in the first recommendation. Emphasis is given to doing so in rural, peri-urban and urban areas. This recommendation expressly recognizes the need for reforms in energy law, such as those that the IUCN CEL Specialist Group has advanced. These recommendations invite more detailed analysis of what sort of regulatory frameworks are needed for licensing energy systems, for economic incentives and disincentives to promote sustainable systems, and for procedures for impact assessment and public participation in energy/environmental decision-making. Above all, before any effective regulatory reforms can be fashioned, there is a need to re-assess the fundamental principles and policy that should guide sustainable energy policy. These principles need to be incorporated into national energy statutes and regulations.
- (f) "Enhance international and regional cooperation" to meet the above ends, again "with special attention to rural and isolated areas."<sup>34</sup> This will require improvements in international environmental governance systems, which was a priority for the WSSD in its preparation, but one about which no consensus could be realized at Johannesburg. Part X of the Johannesburg Plan of Implementation urged the nations to make the existing systems of multilateral cooperation work more effectively; however, in the energy sector, there is an absence of institutional systems to undertake the cooperation called for here. This is another weakness in the recommendations that will need to be addressed.
- (g) "Assist and facilitate on an accelerated basis...the access of the poor to energy services" as set forth in recommendation (1) above. This reiterates the relationship of energy to poverty alleviation. With over 80% of the people of Africa, for instance, having no access to electricity, it is imperative that sustainable development give priority to deploying decentralized renewable energy systems, and develop and deploy presently available distributed technologies such as wind, photovoltaic and biomass resources and eventually hydrogen fuel cell systems to generate electricity in remote places.

There are two elements that will be required to realize these seven recommendations. First, basic principles pioneered in the context of environmental law will need to be applied to the realm of energy law. These include the principles set forth in the UN World Charter for Nature.<sup>35</sup> These principles appear in the Rio Declaration on Environment and Development, and in the earlier Stockholm Declaration on the Human Environment. These principles are implemented in the laws of many nations, in the Directive of the European Union, and the

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<sup>32</sup> *Id.*, Para 8(c).

<sup>33</sup> *Id.*, Para. 8(d).

<sup>34</sup> *Id.*, Para. 8(f); on the issue of failing to agree on enhancements to the international environmental governance, see Nicholas A. Robinson, "Befogged Vision: International Environmental Governance A Decade After Rio", *William and Mary Law & Policy Review* (2003); an article delivered at a Symposium in May 2002, William & Mary Law School, Williamsburg, Virginia.

<sup>35</sup> UNGA Res. 37/7 (1982).

several multilateral environmental agreements. Nonetheless, these principles have largely been ignored by those who develop the utilitarian and short-term economic objectives of the energy sector. Ignoring these principles is no longer sustainable. Among the principles must be that of reuse and recycling of energy, waste avoidance and robust use of procedures for environmental impact assessment and public participation. Assurance of basic electricity and other fuel needs for the poor must be a priority. Second, guided by principle, public resources can be deployed to put on line, where geographic conditions permit, renewable energy systems (solar, wind, hydroelectric) and to refine and deploy presently available hybrid electric vehicles and eventually hydrogen fuel cell technologies for motor vehicle design in transport systems and for supply of electricity on a decentralized, rural basis.

It may be that the Conference of the Parties of the UN Framework Convention on Climate Change can develop – as a priority – the development of basic principles to guide the next generation of energy laws. It may be that the Conference of the Parties of the UN Convention on Biological Diversity can develop the standards for effective sequestration of carbon dioxide through photosynthesis. It may be that the Second Committee of the UN General Assembly, and the UN Commission on Sustainable Development, can identify the consensus policies that will unite these two sectors. If global ecosystem management has any meaning, it is in the measurement of energy flows, and this must include the intellectual energy flow of ideas and action across sectors and between these several global forums for decision-making.

Ultimately, however, energy law reform is one of the quintessential national issues. Parliaments around the world need to address how to reshape national energy laws. In the period after Stockholm, “capacity building” in legislation was focused on the developing nations. In the period after Johannesburg’s WSSD, comparable effort must be devoted to working in each of the capitals of the world to build a new framework for sustainable energy law. In such a mission, IUCN and its Commission on Environmental Law will need to assist national legislators as they consider their options to revise energy laws. Energy law has emerged as a core part of the mission of IUCN’s Environmental Law Programme, and energy law reform within each nation will become one of the core objectives of those who advocate sustainable development in the coming “next” generation of environmental laws.

### **III. Remediation of chemically treated soils**

# The Soil Remediation Act in Japan

*Yumihiko Matsumura\**

*This paper reviews Japan's Soil Remediation Act (SRA), focusing on its framework, which aims to regulate the remediation of soil contamination on industrial sites. The disclosure of information on contaminated lands is particularly expected to have positive effects at various levels and it will play an important role to accelerate the cleaning-up of soil contamination, although the number of industrial sites where the SRA requires the landowners to implement soil investigation will not be too large. The SRA will encourage each company to develop its own environmental strategies, reinforcing proactive and highly transparent performance.*

## I. Background

Japan's Soil Remediation Act (SRA) was enacted in 2002 and came into effect on 15 February 2003. The SRA aims to regulate the remediation of soil contamination on industrial sites, while the Agricultural Land Soil Pollution Prevention Law<sup>1</sup> was enacted in 1970 as the overall legal system for issues of agricultural land contamination.

Prior to the enactment of the SRA, there were several laws on soil contamination in urban areas (See Fig. 1). Environmental quality standards for soil<sup>2</sup> and for groundwater<sup>3</sup> were stipulated in 1991 and 1997, based on Article 16 of the Basic Environmental Law.<sup>4</sup> The Water Pollution Control Law (WCPL), passed in 1970, was revised in 1996 to regulate harmful infiltration by certain industrial establishments. The WCPL stipulates the remediation of the groundwater and soil, when groundwater pollution causes or may cause damage to health.<sup>5</sup> The Law Concerning Special Measures against Dioxins<sup>6</sup> enacted in 1999 is an environmental protection policy focusing on the prevention and remediation of dioxin-contaminated soil. However, these laws were not enough to cover all aspects of soil contamination in the urban area, especially on industrial sites.

The SRA was enacted in response to the growing number of industrial soil contamination incidents reported in the 1990s. According to the statistics published by the Japanese Ministry of the Environment, 574 cases of contamination were found by 2000.<sup>7</sup> This number, however,

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<sup>1</sup> The English version of the Agricultural Land Soil Pollution Prevention Law (Law No. 139 of 1970) is found on [www.env.go.jp/en/lar/aglaw/law.pdf](http://www.env.go.jp/en/lar/aglaw/law.pdf)

<sup>2</sup> Ministry of the Environment, *Water Environment Management in Japan* (2001); see [www.env.go.jp/en/rep/water\\_pamph/e34-e37dojo.pdf](http://www.env.go.jp/en/rep/water_pamph/e34-e37dojo.pdf), 32.

<sup>3</sup> Ministry of the Environment, *op. cit.*, 16.

<sup>4</sup> The English version of the Basic Environmental Law (Law No. 91 of 1993) is found on [www.env.go.jp/en/lar/blaw/index.html](http://www.env.go.jp/en/lar/blaw/index.html)

<sup>5</sup> As to the number of occasions where the soil quality fell below the standard required, from 1991 to 1999, see Ministry of the Environment, *op. cit.*, 34.

<sup>6</sup> Ministry of the Environment, *op. cit.*, 36. The English version of the Law Concerning Special Measures against Dioxins is found on [www.env.go.jp/en/lar/dioxin/law.pdf](http://www.env.go.jp/en/lar/dioxin/law.pdf)

<sup>7</sup> As to the number of occasions where the soil quality fell below the standard required, from 1991 to 1999, see Ministry of the Environment, *op. cit.*, 34.

is only a small portion of the actual number of cases that still remain unreported. It is almost certain that the actual numbers will, by far, outstrip the statistical figures.

## **II. Outline of the Soil Remediation Act**

### **A. Purpose**

The purpose of the Soil Remediation Act (SRA) is to protect public health by formulating measures to examine the extent of soil contamination by specific toxic substances, and to prevent soil contamination from causing damage to health.

The SRA is applied when damage to health is or may be caused by either (a) direct exposure to contaminated soil or (b) ingesting of contaminated groundwater. Damage to human health, and not to the environment itself, is the key criteria for the application of the SRA. Only when health damage has occurred or is likely to occur is it possible to officially designate a contaminated area, and to impose risk reduction measures. This is an important limitation for the application of the SRA.

### **B. Framework**

The SRA consists of three parts (See Fig.2):

- (1) Implementation of soil investigation;
- (2) Designation of contaminated area; and
- (3) Risk management measures:
  - (a) Remediation measures
  - (b) Restriction on land use

#### **1. Implementation of soil investigation**

The SRA requires soil investigations in industrial sites in two cases. The first applies when a specified facility that has manufactured, used or treated harmful substances stops its operation, or when it is altered for other uses. The other is when an administrative order is issued. The person that is required to conduct an investigation is the person who owns, occupies or manages the land on which such specified facility exists.

In the first case, the SRA has a limitation in that landowners are not liable to investigate soil contamination if the facilities are in operation. In addition, this law does not apply to those sites where the facilities have stopped operations before the passing of the SRA, and where the prefectural authority confirms that soil contamination thereof may not cause health damage. Thus, for the soil investigation of industrial sites where the SRA does not apply, we have to expect enterprises to survey their own sites on a voluntary basis.

A Prefectural Governor may order an investigation on soil contamination and require the results to be reported, where the governor has reason to suspect the presence of harmful soil contamination and there is the possibility of damage to public health.

In both cases, authorized assessors perform the soil investigation. The substances that are to be checked are, however, limited to only those toxic substances that are presumably contaminating the site assessed.

## **2. Designation of contaminated area**

The SRA requires that the results of the compulsory soil investigation be notified to the prefectural governor. When the investigation identifies the presence of concentration of particular toxic substances in the land that exceeds the permitted limits, the land is designated as a contaminated area and is registered in the list of designated contaminated areas. This list is open to public inspection in principle. A prefectural governor cannot reject the request for access to the site without a justifiable reason. Once designated as a contaminated area, the site will be deleted from the list only after the remediation was successfully undertaken to lower the contamination to the acceptable level specified. It should be emphasised that this system, including the principle of accessibility of the list, will play an important role in promoting remediation measures. As placement on the list has a negative effect on corporate image and on land value, this fundamental scheme gives landowners an incentive to take appropriate risk management measures.

## **3. Risk management measures – administrative orders for remediation**

Prefectural governors may order execution of remediation measures when the contaminated land causes actual damage or poses a threat to public health. An administrative order shall be issued if any of the following conditions is satisfied:

- (a) The land contamination may cause groundwater pollution, which may damage human health; or
- (b) The land is accessible to anyone while it contains excess amount of specific toxics that may cause health damage by direct ingestion; and
- (c) No remediation measures have been undertaken for the contaminated soil.

The administrative order will order the remediation of the soil as well as the taking of preventive actions to stop the spreading of contamination, and other necessary measures. However, it demands only minimal steps to protect people from possible health damage. Thus, it is not always necessary to completely de-pollute the contaminated land. For example, when direct exposure to the land is the point at issue, it is enough only to cover the top soil with clean earth.

However, with the basic scheme of designation and the accessibility of the list to the public as stated earlier, it is anticipated that landowners will, of their own volition, promote further remediation in many cases, even though they are not required to fully cleanse the contaminated land of harmful substances. A more thorough cleanup promotes better public relations and increases corporate image. Landowners will actively promote remediation measures in order that their land can be deleted from the list.

## **4. Persons required to undertake remediation measures**

### **(a) The landowner**

The owner of the land, in principle, is required to execute risk reduction measures. The person who occupies or manages the land is also required to do so. This is regardless of whether the owner or occupier/manager is involved in any process that results in its contamination.

The party that is required to undertake the risk reduction measures differs from country to country. In Denmark, the Contaminated Lands Act requires only the polluter to take the

necessary measures. In England, the Environmental Protection Act requires the polluter to take the risk reduction measures as the first and primary party, while the landowner is regarded as a secondary party to undertake this obligation. The German Federal Soil Protection Act lays down that both the landowner and the polluter should assume the obligation jointly and severally.<sup>8</sup> The Soil Protection Act in Netherlands puts an obligation on both sides with a possible exemption for the landowner. This will be revised shortly, to impose an obligation on the landowner for contaminations that took place before 1975.

The Soil Remediation Act in Japan considers the landowner as the primary subject of these obligations. It is based on the notion that the landowner holds control over the contaminated land, and the polluter, without ownership of the land does not have the right to execute risk reduction measures.

### **(b) The polluter**

The polluter is required to clean up the land when all of the following conditions are fulfilled:

- (i) The polluter is directly responsible for the contamination;
- (ii) It is considered reasonable to mandate the remediation measures for the polluter; and
- (iii) The landowner consents to requiring the polluter to execute the measures.

### **(c) Others**

The SRA has no provision on the liability of a mortgagee. Thus, mortgagees/lenders are not liable, in principle, to implement remediation measures, unless they are the required persons above mentioned. However, it is possible to take the view that the lender is liable if he exercised control on the polluter. If a person acquires land temporarily as a result of the foreclosure of a mortgage, the local governor will order him to seal off the area or to monitor the groundwater pollution.

## **5. Compensation**

The SRA states that the landowner is entitled to claim compensation from the identified polluter for the cost of implementing the remediation measures required by the administrative order. This regulation applies only within the framework of the risk management measures required by the administrative order. When the landowner takes further steps beyond the risk reduction measures originally required by an administrative order, he shall not receive any compensation for the increased costs. Also, a landowner is not entitled to claim compensation for the costs when these measures are taken voluntarily without the administrative order. The claim will be effective either for (a) 3 years from the date when a landowner had knowledge of the polluter, or (b) 20 years from the date when landowner completed remediation measures.

This regulation does not apply when the soil cleanup cost is deducted from the sale price of the land. In the cases where this regulation does not apply, a claim for compensation must be made under the civil law, which is practically difficult in many cases.

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<sup>8</sup> The German Supreme Court has restricted in its jurisprudence the responsibility of the landowners who had not known and were not in a position to know the existence of the land contamination. See BVerfGE, 102, 1.

## **6. Financial Support Scheme**

The Financial Support Scheme is a plan where the central government and the other sectors, especially the economic sectors, collaborate financially to support the landowner who is to undertake the risk management measures when financial reasons make it difficult for the measures to be executed (Fig.3). Landowners who have contributed to the contamination of the land are not entitled to apply for financial support under this scheme. This scheme is based on the principle of self-responsibility of the landowner. According to the plan, the central government and the economic sectors shall pay 500 million yen<sup>9</sup> a year for 20 years. It should be necessary to expand the scope of the financial support to include remediation measures implemented on the voluntary basis.

## **7. Risk management measures – restrictions on land use**

Once an industrial site is designated as a contaminated area and is registered on the list, the use of the land will be restricted. This restriction is intended to prevent the risk factors from spreading, for example, by the contaminated soil being carried off after it is excavated.

In the case of excavations or any other operations to the contaminated land, the landowner is required to report the details of the operation to the prefectural government before the start of such operations. Operations required to be performed are prescribed in the methods set forth under SRA. Suspension or modification of the operation may be required at the discretion of the prefectural government.

## **III. Evaluation**

The number of industrial sites where the SRA requires the landowners to implement soil investigation will not be too large, with the estimated number of between 500 and 1000 a year. The SRA also has a limitation in that it requires risk management measures that are necessary only to prevent damage to public health.

However, the SRA is expected to have considerable influence in reality. Firstly, enacting the SRA itself will result in a surge in public awareness on soil contamination. The fundamental scheme of SRA, which designates a contaminated site as a 'contaminated area', placing that industrial site on a list open to the public, will have a profound effect on promoting proactive efforts by companies to deal with soil contamination.

The principle of disclosure of the list is particularly expected to have positive effects at various levels. First of all, it gives an incentive for the industrial sectors to take preventive and precautionary measures. Secondly, a growing number of companies will proactively undertake soil investigations on their industrial sites even without legal obligations. Voluntary risk management measures will be implemented when contamination is identified. Third, when an industrial site is involved, the purchaser will seek for contamination-related information on the land. The investment market and financial market also play an important role. If necessary, an agreement shall be reached with the vendor over the implementation of certain risk management measures, with the vendor bearing the necessary expenses.

Finally, the importance of voluntary actions by the industry without the obligations provided under the SRA should be emphasised. The accessibility of the blacklist of contaminated sites to the public will have an important role. In the future, it is anticipated that there will be discussions on the viability of releasing information not only for the results of voluntary and mandated investigations but also in regard to information on lands that are

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<sup>9</sup> Roughly equivalent to US \$4.25 million.



Figure 2. Framework of of the Soil Remediation Act

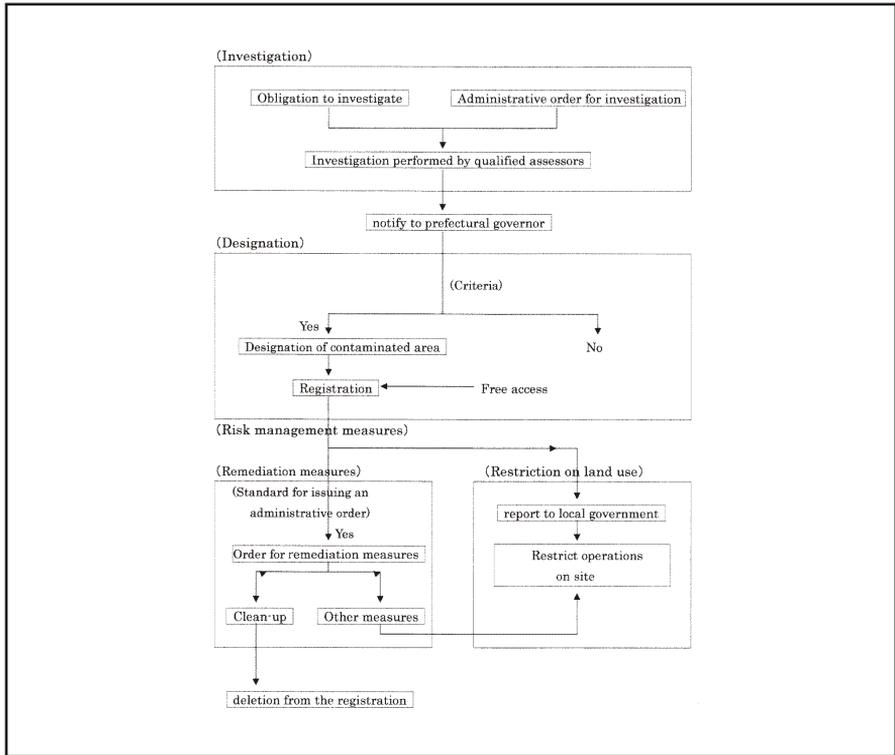
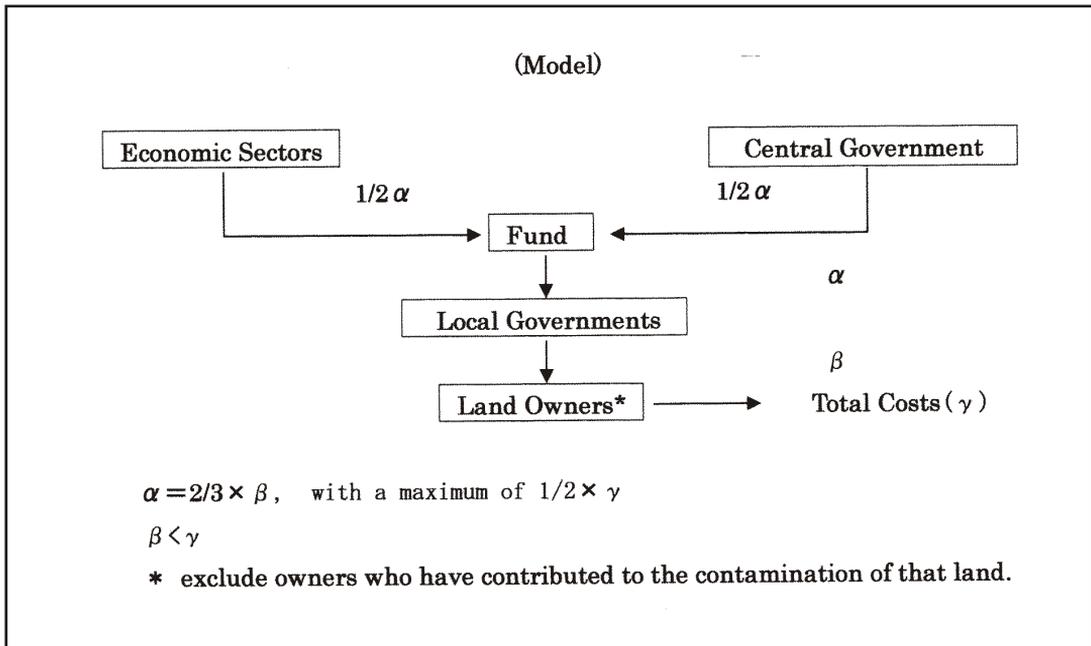


Figure 3. Expected cooperative financial supporting scheme



# Lessons learned from twenty years of experience in soil restoration: The evolution of lender liability under the Comprehensive Environmental Response, Compensation and Liability Act

*Hiroko Muraki Gottlieb \**

*The US Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) is examined in order to illuminate specific challenges that confronted and continue to confront the United States in implementing a legislative scheme to address the remediation of soil and/or groundwater impacted with pollutants. The focus of this paper is on the evolution of lender liability and the secured interest exemption under the Comprehensive Environmental Response, Compensation, and Liability Act and the concomitant issues that may arise in the implementation phase of Japan's Soil Contamination Measures Law.*

## I. Introduction

In May of 2002, the government of Japan enacted legislation establishing a comprehensive framework to address existing soil contamination. Known as the Soil Contamination Measures Law<sup>1</sup> (“SCML”), it is the first law in Japan to require the remediation of soil and/or groundwater contaminated with certain (yet to be fully enumerated), hazardous substances at certain industrial and commercial sites. While the Soil Contamination Measures Law does establish a framework for the investigation, designation and remediation of impacted sites, it now remains the critical function of the Japanese Cabinet and the Ministry of Environment to develop the rules and regulations needed to implement and enforce this statutory scheme.

The manner in which the rules and regulations of the Soil Contamination Measures Law are ultimately drafted will not only have a lasting effect on how the Soil Contamination Measures Law is ultimately perceived by the domestic and international financial, environmental and legal communities, but will also have a direct impact on the success or failure of the law. Therefore, in developing the rules and regulations needed to implement and enforce the Soil Contamination Measures Law, it may be beneficial for those charged with such responsibility to examine the experiences of other legal systems that have previously encountered difficulties associated with implementing similar environmental statutes. While it is certainly important to recognize that the legal and cultural norms of Japan may differ from those of other nations, it is equally as important to recognize that Japan may profit from an examination of the experiences of other such nations.

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)<sup>2</sup> has been chosen as the representative environmental statute not only for its

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<sup>1</sup> Dojyo Osen Taisaku Ho, 2002, No. 53.

<sup>2</sup> See *Superfund 20<sup>th</sup> Anniversary Report* by the EPA for background information, history and a general overview of CERCLA. The report is available at: [www.epa.gov/superfund/about.htm](http://www.epa.gov/superfund/about.htm)  
The text of CERCLA is available at: [uscode.house.gov/DOWNLOAD/42C103.Doc](http://uscode.house.gov/DOWNLOAD/42C103.Doc)

progressive approach to the investigation and remediation of pollution that is harmful to human health and the environment, but also for its relatively long standing as a comprehensive remediation statute. It is CERCLA’s relatively long standing as environmental law, and the judicial, regulatory and legislative scrutiny, compromises and amendments it has endured, that will afford the Japanese decision-maker an excellent vantage point to assess the challenges faced, and the solutions found, by others that confronted similar issues. The enactment of CERCLA by the United States Congress in 1980 was prompted by grave public concern over uncontrolled contaminated properties and a gap in the then existing statutory authority to address such properties.<sup>3</sup> CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) in 1986,<sup>4</sup> the Asset Conservation, Lender Liability, and Deposit Insurance Protection Act of 1996 and by the Small Business Liability Relief and Brownfields Revitalization Act (the “Brownfields Act”) in 2002.<sup>5</sup>

While each provision of CERCLA could certainly provide a myriad of examples for the Japanese decision-maker to either incorporate or avoid, examining each such provision is beyond the scope of this paper. Rather, the focus of this paper will be on the issue of lender liability and the evolution of the secured creditor exemption under CERCLA. As will be detailed below, the lender liability provisions of CERCLA have evolved from where a lender had to choose between taking a loss on a loan or foreclosing on the property and risking liability under CERCLA, to where they are protected from inadvertently forfeiting the secured creditor exemption and incurring liability. An integral part of this review of the lender liability provisions will focus on the United States Environmental Protection Agency (the EPA) and its response to the confusion surrounding the scope of the lender liability exemption as a result of the conflicting judicial interpretations regarding such provisions.

A significant part of any nation’s regulatory scheme mandating the clean up of contaminated properties involves balancing the oft conflicting goals of protecting the health of its people and the environment with protecting the health of its economy and future economic growth. CERCLA has, from the beginning, faced and continues to face the challenges of balancing these competing interests. Given the current situation in the Japanese banking system, the evolution of the issue of lender liability under CERCLA should be of interest to the Japanese decision-maker. It is this author’s hope that this paper will alert the Japanese decision-makers to the potential challenges that may lie ahead in implementing the Soil Contamination Measures Law and the difficulties in striking a proper balance between the clean-up of industrial properties and economic growth.

## **II. An overview of Japan’s soil contamination measures law and the proposed lender liability provisions**

Dojyo Osen Taisaku Ho, 2002, No. 53 (the “Soil Contamination Measures Law” or the “SCML”)<sup>6</sup> was enacted by the Japanese legislature on May 22, 2002. The public policy

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<sup>3</sup> The most well known site in the USA is a landfill located in Love Canal, New York. Further reading about the site is available at the University at Buffalo’s website: [ublib.buffalo.edu/libraries/units/sel/exhibits/lovecanal.html](http://ublib.buffalo.edu/libraries/units/sel/exhibits/lovecanal.html)

<sup>4</sup> A summary of SARA is available at: <http://www.epa.gov/superfund/action/law/sara.htm>; the text of SARA is available at: [uscode.house.gov/DOWNLOAD/42C103.Doc](http://uscode.house.gov/DOWNLOAD/42C103.Doc)

<sup>5</sup> A summary of the Brownfields Act is available at: [www.epa.gov/swerosps/bf/html-doc/2869sum.htm](http://www.epa.gov/swerosps/bf/html-doc/2869sum.htm); the text of the Brownfields Act is available at: [www.epa.gov/swerosps/bf/pdf/hr2869.pdf](http://www.epa.gov/swerosps/bf/pdf/hr2869.pdf)

<sup>6</sup> A copy of the SCML is available at the following Ministry of Environment website: [www.env.go.jp/water/dojo/honbun.pdf](http://www.env.go.jp/water/dojo/honbun.pdf)

impetus behind this new soil remediation statute is to protect human health.<sup>7</sup> This scope of protection is narrower than CERCLA, as CERCLA requires both the protection of human health and the environment.

Unlike CERCLA, the SCML does not impose joint and several liability, but rather, imposes liability on the entity or individual that has the best authority to exercise control over a property. This entity or person may be a property owner, property manager or an operator at a property where a certain “facility” is located (“Responsible Party”).<sup>8</sup> A “facility” is a “special facility” as defined pursuant to the Water Pollution Control Law that manufactures, uses, or treats any of the specified hazardous substances (“Facility”).<sup>9</sup> “Hazardous substances” include lead, arsenic, trichloroethylene and other pollutants that will be designated by a Cabinet Order (“Hazardous Substances”).<sup>10</sup> Criteria for an acceptable level of Hazardous Substances in soil will be set by a Ministry of Environment ordinance (“Remediation Criteria”).<sup>11</sup>

Broadly speaking, the SCML utilizes a three phased approach to accomplish the clean-up of existing contamination at a property: investigation, registration and remediation. The SCML requires a Responsible Party to retain a consultant authorized by the Ministry of Environment and conduct an environmental site assessment at its own cost.<sup>12</sup> The following circumstances trigger investigation: (1) closure of a Facility<sup>13</sup> or (2) a mandate by a prefectural governor.<sup>14</sup> A mandate to conduct a site investigation may be issued by a prefectural governor if he or she identifies a property that likely exceeds the Remediation Criteria.<sup>15</sup> If such site assessment shows that the level of Hazardous Substances exceeds the Remediation Criteria, the prefectural governor then has the authority to designate and list such property on a registry (the “Registry”).<sup>16</sup> Once the property is listed on the Registry, immediate restrictions on both land use and soil excavation are placed on the property.<sup>17</sup> This Registry is open to the public.<sup>18</sup> The prefectural governor has the authority to mandate remediation of a property listed on the Registry.<sup>19</sup> Upon completion of remediation, the property will be de-listed from the Registry.<sup>20</sup>

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<sup>7</sup> The SCML, Dai Issho, Dai Ichijyo. (Chapter I, Article 1).

<sup>8</sup> The SCML, Dai Nisho, Dai Sanjyo (Chapter II, Article 3).

<sup>9</sup> The SCML, Dai Nisho, Dai Sanjyo (Chapter II, Article 3).

<sup>10</sup> The SCML, Dai Issho, Dai Nijyo (Chapter I, Article 2).

<sup>11</sup> The SCML, Dai Sansho, Dai Gojyo (Chapter III, Article 5).

<sup>12</sup> The SCML, Dai Nisho, Dai Sanjyo (Chapter II, Article 3).

<sup>13</sup> Although neither expressly nor implicitly stated in the SCML, subsequently issued “SCML Proposed Ordinance” (as defined herein) and Ministry of Environment’s response to public comments issued in November of 2002 listed certain situations when a site assessment would not be required for a Facility that has ceased its operations (e.g. similar operations will resume at the Facility, etc.).

<sup>14</sup> Upon the governor’s discovery that a Facility has closed (even if such Facility has failed to report the closure of its operations), a governor has the authority to issue an order to mandate environmental site assessment. Dai Nisho, Dai Sanjo, Dai Niko (Chapter II, Article 3, Paragraph 2).

<sup>15</sup> The SCML, Dai Nisho, Dai Yonjyo (Chapter II, Article 4).

<sup>16</sup> The SCML, Dai Sansho, Dai Gojyo (Chapter III, Article 5).

<sup>17</sup> The SCML, Dai Yonsho, Dai Kyujyo (Chapter IV, Article 9). There are four exemptions to the land use restrictions and soil excavation prohibition: 1. An order issued by the governor contravenes such restriction; 2. The restricted activity is authorized by a Ministry of Environment ordinance; 3. The restricted activity was already in progress when the site was listed on the Registry; and 4. The restricted activity is necessary as an emergency measure to respond to a natural disaster.

<sup>18</sup> The SCML, Dai Sansho, Dai Rokujo (Chapter III, Article 6).

<sup>19</sup> The SCML, Dai Yonsho, Dai Nanajyo (Chapter III, Article 7).

<sup>20</sup> The SCML, Dai Sansho, Dai Gojyo, Dai Yonko (Chapter III, Article 5, Paragraph 4).

Within the above framework, many details remain to be determined by either Cabinet or Ministry Order. A proposed ordinance that addresses the non-technical provisions of the SCML<sup>21</sup> (Dojyo Osen Taisakuho Ni Motozuku Seishorei Ni Kiteisuru Naiyo (An))<sup>22</sup> (the “SCML Proposed Ordinance”) was available for public comment from August 7, 2002 to September 3, 2002. The Ministry of Environment subsequently issued a response to the public comments in November of 2002 (“MOE Response”).<sup>23</sup>

While the SCML is silent as to the role of a secured lender, the SCML Proposed Ordinance introduced the concept of lender liability, which imposed a limited scope of liability for a lender under certain circumstances. Specifically, the SCML Proposed Ordinance stated that if a lender exercises its security right on a property<sup>24</sup> and the property subsequently triggers the SCML’s investigation requirements either due to closure of a Facility or by an order by a prefectural governor, then such lender may be considered a “temporary owner” (“Temporary Owner”).<sup>25</sup> The SCML Proposed Ordinance did not address a Temporary Owner’s obligations to investigate the acquired property. The SCML Proposed Ordinance, however, provided that a Temporary Owner would only be required to conduct groundwater monitoring or restrict site access by the public.

An attachment to the SCML Proposed Ordinance provided further guidance on the liability of a lender who took title to a property which subsequently triggers the SCML. The SCML Proposed Ordinance required two criteria to be satisfied for a lender to secure the status of a Temporary Owner. First, a Temporary Owner must demonstrate that it has expressed to the public its continuous efforts to sell the property at an appropriate price. Second, a Temporary Owner must divest the property in question within one year from the time it acquired the property unless “special circumstances” hinder a lender to do so. Examples of “special circumstances” included a litigation involving the lessee of the property or where the property is being taken by the Japanese government for public use. The Ministry of Environment, however, explicitly excluded certain circumstances (i.e. an economic recession, a lender’s inability to sell the property, or difficulty selling the property due to soil contamination) from the definition of “special circumstances”.

The majority of the public comments regarding the definition of Temporary Owner provided in the SCML Proposed Ordinance centred on the requirement that a property triggering the SCML must be divested within one year of acquiring such property. The MOE Response revised the SCML Proposed Ordinance by eliminating such time limitation. Rather, the MOE Response placed an emphasis on the intent of the lender to sell such property. In order to become a Temporary Owner, a lender with a secured interest on a property, and where such property subsequently triggers the SCML, must show that it intends to sell the property to a potential buyer who makes an offer above an “appropriate

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<sup>21</sup> The public comments and responses to such comments to the proposed technical provisions to the SCML (Dojyo Osen Taisaku Ho Ni Kakawaru Gijyutsuteki Jiko Ni Tsuiteno Kangaekata No Torimatome An) was issued separately. The document is available at: [www.env.go.jp/press/press.php3?serial=3615](http://www.env.go.jp/press/press.php3?serial=3615)

<sup>22</sup> The SCML Proposed Ordinance is available at: [www.env.go.jp/press/press.php3?serial=3530](http://www.env.go.jp/press/press.php3?serial=3530)

<sup>23</sup> “Dojyo osen taisakuho ni motozuku seishorei ni kiteisuru naiyo (an) ni kansuru kokunin no minasama karano iken boshu kekka ni tsuite”, Ministry of Environment, Environmental Management Division, Water Management Bureau.

<sup>24</sup> Examples provided in the SCML Proposed Ordinance are: (1) a lender acquires a property pursuant to an exercise of a security right (i.e. foreclosure on a property); or (2) a lender acquires title to a property from another lender through the bulk purchase of loans secured by the security interest on the property. Section 4(3).

<sup>25</sup> *Id.*

price” for the property. The SCML, the SCML Proposed Ordinance and the MOE Response are all silent on what would constitute an “appropriate price” for a property which triggers the SCML. There is no need to disclose to the public the lender’s “intent to sell”, but the lender must show that it will sell the property to a buyer who makes an offer above an “appropriate price” for the property. If a lender fails to show that it intends to divest the property (i.e. that it is a Temporary Owner), the lender will lose its status and it would be deemed an “owner” (i.e. Responsible Party) pursuant to the SCML.

Although the SCML Proposed Ordinance did not address a Temporary Owner’s obligations to investigate a property, the MOE Response specifically states that a Temporary Owner is indeed required to conduct a site assessment at its own cost by retaining a consultant approved by the Ministry of Environment.<sup>26</sup> Based on the findings of the site assessment, the prefectural governor has the authority to list the property on the Registry and to issue a remedial order to a lender. The scope of the order, however, is restricted to either groundwater monitoring or limiting the public’s access to the property. If a lender loses its Temporary Owner status, the lender may be required to conduct a remedial action beyond groundwater monitoring or limiting site access by the public if the prefectural governor issues a remedial order with such specifications.

There are two scenarios where lender liability under the SCML may shift to a third party. First, the MOE Response confirms that if a buyer purchases a property listed on the Registry from a Temporary Owner, then such a buyer will be deemed an “owner” (i.e. Responsible Party) pursuant to the SCML. As the Responsible Party, unlike the Temporary Owner, the buyer may be required to conduct remedial activities if the prefectural governor issues such an order. Second, if the prefectural governor makes a determination that remedial activities are required and if an entity that actually contaminated the property is clearly identified, then the prefectural governor has the authority to issue a remedial order to the party that contaminated the property.<sup>27</sup>

As for recovery of costs from a third party that contaminated the property, the SCML allows a Responsible Party or a Temporary Owner that has conducted an investigation and remedial actions pursuant to an order from a prefectural governor to seek recovery of costs incurred in investigating and remediating the property from an entity that caused the contamination at the property.<sup>28</sup> There is a three-year statute of limitations that runs from the time a Responsible Party or a Temporary Owner discovers the party that contaminated the property.<sup>29</sup> Also, this right to contribution expires twenty years after completion of remedial activities.<sup>30</sup>

### **III. The evolution of lender liability under CERCLA**

#### **1. Ambiguity at inception**

CERCLA sets forth four broad categories of parties that are potentially subject to joint, several and strict liability for the remediation of contaminated properties. These categories of potentially responsible parties include: (1) current owners and operators of a hazardous waste site; (2) prior owners who operated the hazardous waste site at the time the hazardous

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<sup>26</sup> As discussed above, however, lender liability is triggered only if the lender acquires the property through its exercise of a security interest. Therefore, unlike CERCLA, a lender would not incur liability before it exercised its security interest.

<sup>27</sup> The SCML, Dai Yonsho, Dai Nanajyo (Chapter IV, Article 7). The entity that actually contaminated the property includes such entity’s corporate successors (i.e. mergers, spin-off, etc.).

<sup>28</sup> The SCML, Dai Yonsho, Dai Hachijyo (Chapter IV, Article 8).

<sup>29</sup> *Id.*

<sup>30</sup> *Id.*

substances were disposed; (3) generators who arranged for disposal or treatment of hazardous substances at the site; and (4) transporters that brought hazardous substances to the site.<sup>31</sup> Under this statutory scheme, a lender would be subject to liability as an “operator” of a hazardous waste site if it became involved in the management of a borrower prior to foreclosure or as an “owner” of a hazardous waste site upon its foreclosure of the mortgage.

When CERCLA was enacted in 1980, however, it explicitly exempted from its definition of current owners and operators of a hazardous waste site those “who, without participating in the management of a facility, hold indicia of ownership in the facility primarily to protect a security interest”.<sup>32</sup> This language, commonly called the “security interest exemption” or the “secured creditor exemption”,<sup>33</sup> was tacked on as a carve-out from the definition for “current owners and operators” due to a concern raised during the 1980 pre-enactment deliberations that without such an exemption, CERCLA would “inadvertently subject... those who hold title to a facility, but do not participate in the management or operation and are not otherwise affiliated with the person leasing or operating the facility, to the liability provision of the bill”.<sup>34</sup> Despite the inclusion of the security interest exemption in CERCLA, this pre-enactment concern became a post-enactment reality.

From its very inception, the security interest exemption was plagued by ambiguity and confusion.<sup>35</sup> While the security interest exemption, as originally drafted, appeared to protect lenders from pre-foreclosure liability, it did not address whether taking possession of a property prior to foreclosure or acquiring property at foreclosure would result in a lender being considered an “owner or operator” for CERCLA liability purposes.<sup>36</sup> Moreover, as commentators have noted, the secured creditor exemption did not provide “any guidance as to what level of involvement in the borrower’s business for purposes of monitoring the loan....or opportunities for lender control provided in the loan documents, would be

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<sup>31</sup> 42 U.S.C. § 9607(a)(1)-(4) (1997).

<sup>32</sup> CERCLA § 101 (20)(A) reads in its entirety: “The term ‘owner or operator’ means (i) in the case of a vessel, any person owning, operating, or chartering by demise, such vessel, (ii) in the case of an onshore facility or an offshore facility, any person owning or operating such facility, and (iii) in the case of any facility, title or control of which was conveyed due to bankruptcy, foreclosure, tax delinquency, abandonment, or similar means to a unit of State or local government, any person who owned, operated, or otherwise controlled activities at such facility beforehand. Such term does not include a person, who, without participating in the management of a vessel or facility, holds indicia of ownership primarily to protect his security interest in the vessel or facility.” 42 U.S.C. § 9601(20)(A) (1997).

<sup>33</sup> In states that adhere to the title theory of mortgages, mortgagees of property could be deemed “owners” under CERCLA and might be held liable for the cost of clean-up at a borrower’s site even though they had no involvement in the activities that caused the release of the hazardous substances. In a title theory state, a mortgage lender actually takes title to the mortgaged property. In a lien theory state, the mortgage lender has the power to order the sale of the encumbered property if the borrower defaults, but does not hold actual title to the mortgaged property prior to foreclosure. David R. Berz, *et al.*, *Environmental Law in Real Estate & Business Transactions*, § 18.01.

<sup>34</sup> The Senate version of CERCLA initially lacked an exemption for secured creditors. *See* S.1480, 97<sup>th</sup> Cong., 2d Sess., *reprinted in* Senate Comm. on Environmental & Public Works, 97<sup>th</sup> Cong. 2d Sess., 1 A Legislative History of CERCLA 470 (Comm. Print 1983); Remarks of Rep. Harsha, H.R. 722, 96<sup>th</sup> Cong., 2d Sess., *reprinted in* Senate Comm. on Environment & Public Works, 97<sup>th</sup> Cong., 2d Sess., 2A Legislative History of CERCLA 945 (Comm. Print 1983). *Id.* *See* footnote n3.

<sup>35</sup> As one commentator noted, CERCLA had “a relatively lengthy and tortuous legislative history, which culminated in the hasty enactment of a quickly drafted compromise bill. As a result, the statute as enacted in 1980 was characterized by numerous ambiguities, omissions, and poorly drafted provisions...” Michael B. Gerrard, *Brownfields Law and Practice: The Cleanup and Development of Contaminated Land*, § 3.01[3][a].

<sup>36</sup> *Id.* at § 3.01[5][a].

considered to constitute ‘participation in management’ so as to make the exemption in-applicable”.<sup>37</sup>

While conceptually the idea of exempting secured creditors from clean up liability under CERCLA was not without merit, the ill conceived language of the secured creditor exemption as to what would constitute being an “owner” or an “operator” for purposes of CERCLA liability rendered the exemption virtually useless. The inability of lenders to fully understand what actions would or would not constitute “participation in management” created an atmosphere of confusion among lenders, wreaked havoc in the financial community and had a chilling effect on the flow of investment funds to rehabilitate previously contaminated properties. This statutory ambiguity and the resulting confusion marked the beginning of a series of conflicting judicial decisions, regulatory and legislative action and administrative guidance that shaped the scope of liability protection for lenders. As will be discussed below, the concern of being subject to CERCLA liability still remains today as one of the primary risks that financial and lending institutions must manage in their normal course of business.

## 2. Conflicting judicial decisions

After CERCLA was enacted in 1980, no additional legislative amendments or regulatory interpretations as to the extent of lender liability or the scope of the security interest exemption under CERCLA were issued until 1992. During that period of time, understanding what business decisions or actions taken by a secured creditor in order to protect its security interest would run afoul of the security interest exemption and trigger CERCLA liability became an area of significant lender confusion and concern.<sup>38</sup> In particular, lenders and financial institutions grew increasingly wary that actions taken in a normal course of business, such as “monitoring facility operations, requiring compliance with legal requirements and compliance-related activities, refinancing or undertaking loan workouts, providing financial advice, and undertaking other similar actions that may affect the financial, management and operational aspects of a business”<sup>39</sup> may constitute “participation in management” and bring such lender or financial institution within the purview of CERCLA liability.

In the absence of either legislative amendment or regulatory interpretation as to the scope of the security interest exemption, it was left to the courts to fill the interpretive void. As a result, during the timeframe commencing with CERCLA’s enactment and ending upon the first issuance of regulatory interpretation almost 12 years later, conflicting judicial decisions were issued as to the specific acts that would constitute a lender’s “participation in management” under CERCLA. The most notable case was the 1990 Eleventh Circuit Court decision, *United States v. Fleet Factors*.<sup>40</sup> *Fleet Factors* significantly narrowed the security interest exemption and vastly expanded the liability of lenders by suggesting that secured lenders need not participate in the day-to-day operations of the facility liability and that merely having a capacity to influence the facility’s hazardous waste disposal practice was sufficient to incur CERCLA liability.<sup>41</sup>

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<sup>37</sup> *Id.*

<sup>38</sup> National Oil and Hazardous Substances Pollution Contingency Plan; Lender Liability Under CERCLA, 57 Fed. Reg. 18,344 (Apr. 29, 1992).

<sup>39</sup> *Id.*

<sup>40</sup> *United States v. Fleet Factors*, 901 F.2d 1550 (11th Cir. 1990), *cert. denied*, 498 U.S. 1046 (1991).

<sup>41</sup> *Fleet Factors*, 901 F.2d at 1557-58. The Eleventh Circuit discussed that a “secured creditor may incur liability, without being an operator, by participating in the financial management of a facility to a degree indicating a capacity to influence the corporation’s treatment of hazardous wastes. It is not necessary for the secured creditor to actually involve itself in the day-to-day operations of the facility in order to be liable – although such conduct will certainly lead to the loss of the protection of the statutory exemption. Nor is it necessary for the secured creditor to participate in management decisions relating to hazardous waste. Rather, a secured creditor will be liable if its involvement with the management of the facility is sufficiently broad to support the inference that it could affect hazardous waste disposal decisions if it so chose.”

Although dismissed by the Ninth Circuit Court as an unfounded concern in *Fleet Factors*,<sup>42</sup> the expansion of a secured lender's liability actually had a chilling effect on the willingness of lenders to extend credit to an owner or developer of industrial or commercial property that had the potential to be contaminated.<sup>43</sup> Indeed, a survey of the lending behaviour of banks after the *Fleet Factors* decision revealed both a significant increase in the rejection of loan applications due to the possibility of environmental liability and the discontinuance of financing to businesses which dealt with chemicals and were therefore often associated with environmental liability.<sup>44</sup> One significant, but unintended, outcome of *Fleet Factors* was that while CERCLA was enacted to encourage environmental rehabilitation, the ensuing lender fear of potential clean-up liability in excess of the value of the collateral actually discouraged investment in rehabilitating previously contaminated properties.<sup>45</sup>

In a case decided after *Fleet Factors*, the Ninth Circuit Court in *In re Bergsoe Metal Corp.* set a much less expansive standard on lender liability by holding that secured creditors must exercise actual management authority before losing the benefit of the secured creditor exemption.<sup>46</sup> Thus, in *Bergsoe*, the Ninth Circuit Court rejected the concept expressed in dictum in *Fleet Factors* that a lender's mere capacity to influence the facility's hazardous waste disposal practices was sufficient to meet the threshold for "participation in management" of a facility under CERCLA.

These conflicting judicial interpretations, together with various decisions relating to pre-foreclosure and post-foreclosure lender liability,<sup>47</sup> served to create uncertainty among secured lenders as to the degree to which they could involve themselves in the management of a borrower's operations before being deprived of the benefit of CERCLA's security

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<sup>42</sup> The Ninth Circuit Court specifically dismissed the following concern as being unfounded: "Our interpretation of the exemption may be challenged as creating disincentives for lenders to extend financial assistance to businesses with potential hazardous waste problems and encouraging secured creditors to distance themselves from the management actions, particularly those related to hazardous wastes, of their debtors...As a result, the improper treatment of hazardous wastes could be perpetuated rather than resolved." (Internal citations omitted.) *Fleet Factors*, 901 F.2d at 1558.

<sup>43</sup> Gerrard, *Brownfields Law and Practice* § 3.01[5][e][i].

<sup>44</sup> Goldberg, *Lender Liability Under CERCLA* pp. 69–70.

<sup>45</sup> For a discussion of the financial industry's reaction to the *Fleet Factors* decision, see Goldberg, *Lender Liability Under CERCLA* pp. 69–80.

<sup>46</sup> See *In re Bergsoe Metal Corp.*, 910 F.2d 668, 672, 673 n.3 (9th Cir. 1990). The Ninth Circuit held that "there must be some actual management of the facility before a secured creditor will fall outside the [security interest] exemption". The court stated that "a creditor must, as a threshold matter, exercise actual management authority before it can be held liable for action or inaction which results in the discharge of hazardous wastes. Merely having the power to get involved in management, but failing to exercise it is not enough".

<sup>47</sup> See *United States v. Mirabile*, 15 Env'tl. L. Rep. 20,992 (Env'tl. L. Inst.) (E.D. Pa. Sept 4, 1985). The court held that a bank that foreclosed on a contaminated property, took measures to protect the site and promptly sold the property was not an owner. The court held that in order to be liable, a secured lender must "at a minimum, participate in the day-to-day operational aspects of the site". See also *United States v. Maryland Bank Trust Co.*, 732 F. Supp. 573, 578-579 (D. Md. 1986). A bank that had foreclosed on its security interest in contaminated property and did not divest the property for approximately four years lost the protection of the security interest exemption. There, the court held that its security interest ripened into full title. See also *Guidice v. BFG Electroplating & Mfg. Co.*, 732 F. Supp. 556 (W.D. Pa. 1989). The Court held that although the bank was not liable as an owner for acts performed prior to foreclosure, it became liable after it was the successful purchaser of the contaminated property at a foreclosure sale. See also, National Oil and Hazardous Substance Pollution Contingency Plan; Lender Liability Under CERCLA, 57 Fed. Reg. 18,344 (Apr. 29, 1992) for EPA's interpretation of the cited cases.

interest exemption. The combination of increased lender concern regarding the potential diminution in the value of the mortgaged property due to environmental problems, the risk that contamination could negatively impact a borrower's financial health and ability to repay outstanding loans and that the direct imposition of CERCLA liability might far exceed the value of the mortgaged property did indeed create an impetus for banks to not only increase their due diligence prior to the acquisition of commercial or industrial property, but also to monitor a borrower's compliance with waste management regulations.<sup>48</sup> However, specifically which actions (or inaction) taken by a lender prior to foreclosure were permissible and the level of environmental due diligence or monitoring of the borrower's environmental compliance required to safeguard a lender's security interest remained unclear.<sup>49</sup> Further, permissible actions post-foreclosure also remained unclear.

### 3. Regulatory action and judicial reaction

In 1991, acknowledging the uncertainty created by CERCLA's language on lender liability and inconsistent judicial decisions, and with no hope of congressional action to be taken in the near future,<sup>50</sup> the EPA issued a proposed rule to provide guidance on the issue of lender liability (the "Lender Liability Proposed Rule").<sup>51</sup> The EPA stated in the Lender Liability Proposed Rule that the goal of the rule is "to reconcile a holder's need to manage, oversee, or to otherwise act to protect a security interest, with EPA's duty to clean up waste sites and recover public funds spent in remediating these sites from those responsible or otherwise involved in the facility's operations, either through their participation in management . . . or through their own activities at the facility".<sup>52</sup> Rather than listing every possible scenario wherein a lender may be exempt from CERCLA liability, the Lender Liability Proposed Rule provided a guideline to "identify a range of protected activities that a holder may take that would be considered consistent with holding indicia of ownership primarily to protect a security interest".<sup>53</sup> The EPA issued the final version of this interpretive rule on the security interest exemption and lender liability (the "Lender Liability Rule") in 1992.<sup>54</sup> The Lender Liability Rule provided tighter definition to statutory terms and afforded guidance on both pre-foreclosure and post-foreclosure lender liability issues.

The pre-foreclosure provisions of the Lender Liability Rule gave substance to the statutory language "participation in management" by listing certain "actions that are participation in management".<sup>55</sup> For those actions that were not specifically identified, the EPA provided a

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<sup>48</sup> Gerrard, *Brownfields Law and Practice* § 3.01[5][e][i].

<sup>49</sup> A commentator has pointed out that the conflicting judicial decision created "a 'catch-22' situation – the lender might be liable if it too actively examined the state of the borrowers' environmental affairs, and it might be liable if it too passively or 'negligently' allowed environmental problems to go unattended". See William L. Thomas, *The Green Nexus: Financiers and Sustainable Development*, 13 *Geo. Int'l Env'tl. L. Rev.* 899 (2001), n20.

<sup>50</sup> Proposals for legislative amendment of the security interest exemption did not receive enough political support to prompt legislative changes of the statutory language. See *Environmental Law in Real Estate & Business Transactions*, § 18.01.

<sup>51</sup> National Oil and Hazardous Substances Pollution Contingency Plan; Lender Liability Under CERCLA, 56 FR 28,798 (June 24, 1991). Although the EPA Lender Liability Proposed Rule addresses exemption for government lending entities, it is beyond the scope of this paper.

<sup>52</sup> *Id.*

<sup>53</sup> *Id.*

<sup>54</sup> National Oil and Hazardous Substance Pollution Contingency Plan; Lender Liability Under CERCLA, 57 Fed. Reg. 18,344 (Apr. 29, 1992).

<sup>55</sup> Lender Liability Rule, 40 C.F.R. § 300.1100(c)(1).

general test that a lender could use to determine the degree of control that may be appropriate. The Lender Liability Rule specifically rejected *Fleet Factors* and provided that “participation in management of a facility means . . . actual participation in the management or operational affairs of the . . . facility by the holder,<sup>56</sup> and does not include the mere capacity to influence, or ability to influence, or the unexercised right to control facility operations”.<sup>57</sup> Under the Lender Liability Rule, a lender that holds a mortgage would be considered to be participating in the management of the facility prior to foreclosure only if the lender either: (1) exercises decision making control over the borrower’s environmental compliance obligations or (2) exercises control as the overall manager for the day-to-day decision making on the borrower’s environmental compliance or control over substantially all of the operational (i.e. non-financial or administrative) aspects of the business other than environmental compliance.<sup>58</sup> The Lender Liability Rule also specifically enumerated those “actions that are not participation in management”.<sup>59</sup>

To encourage activities that would further the goal of protecting the environment, the EPA specifically identified the following pre-foreclosure activities that would not constitute participation in management: requiring the borrower to clean up the . . . facility during the term of the security interest; requiring the borrower to comply or come into compliance with applicable federal, state and local environmental and other laws, rules and regulations during the term of the security interest; securing or exercising authority to monitor or inspect the . . . facility.<sup>60</sup> Conducting due diligence by a lender prior to taking on a security interest was made optional where such activity would not affect the status of a lender’s security interest exemption.<sup>61</sup>

The post-foreclosure provisions of the Lender Liability Rule allowed a lender that did not participate in the management of the borrower prior to foreclosure, to foreclose on a property “without immediately becoming an owner or operator liable for environmental damage caused by the borrower”<sup>62</sup> In order to avoid post-foreclosure liability, a holder of a security interest was required to satisfy certain criteria to sell the property after foreclosure.<sup>63</sup> In the Lender Liability Rule, the EPA allowed a lender to choose between the bright line test with specific criteria, or a “commercially reasonable” standard (“whatever commercially reasonable means as are relevant or appropriate with respect to the . . . facility”) to resell or divest the facility following foreclosure to maintain its security interest exemption.<sup>64</sup> This “commercially reasonable” option was not available in the Lender Liability Proposed Rule. The EPA specifically inserted this general test as an option in the Lender Liability Rule acknowledging that “there are numerous methods by which properties may be listed for sale or other divestiture in a commercially reasonable manner following foreclosure, any of which may be appropriate to establish that the holder’s taking of title or right to control disposition by foreclosure is consistent with holding indicia of ownership primarily to protect a security interest”.<sup>65</sup>

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<sup>56</sup> A “holder” is defined as a person who maintains indicia of ownership primarily to protect a security interest. Lender Liability Rule, 40 C.F.R. § 300.1100(a)(1).

<sup>57</sup> *Id.* § 300.1100(c)(1).

<sup>58</sup> *Id.* § 300.1100(c)(1).

<sup>59</sup> *Id.* § 300.1100(c)(2).

<sup>60</sup> *Id.* § 300.1100(c)(2)(A).

<sup>61</sup> *Id.* § 300.1100(c)(2)(i).

<sup>62</sup> *Gerrard, Brownfields Law and Practice* § 3.01[5][e][i].

<sup>63</sup> *Id.* § 300.1100(d)(1)-(2).

<sup>64</sup> *Id.* § 300.1100(d)(1).

<sup>65</sup> Lender Liability Rule, § III, Requirement to Offer Property for Sale After Foreclosure.

While the guidelines set forth in the Lender Liability Rule were intended to bring clarity to the issue of CERCLA lender liability, judicial decisions subsequent to the promulgation of the Lender Liability Rule were as inconsistent as those issued prior to its promulgation.<sup>66</sup> In 1994, the United State Court of Appeals for the District of Columbia in *Kelley v. Environmental Protection Agency*, vacated the Lender Liability Rule.<sup>67</sup> In *Kelley*, the Court of Appeals held that Congress intended for the judiciary, not the EPA, to determine liability issues and concluded that the EPA's view of statutory liability should not be given any deference.<sup>68</sup>

The decision in *Kelley* did not, however, preclude the EPA and the Department of Justice (the "DOJ") from utilizing the provisions of the Lender Liability Rule as an enforcement policy.<sup>69</sup> Consequently, in 1995, the EPA and the DOJ issued their "Policy on CERCLA Enforcement Against Lenders and Government Entities that Acquire Property Involuntarily (the "1995 Enforcement Policy").<sup>70</sup> In the 1995 Enforcement Policy, the EPA and the DOJ expressed their intent that they would apply the provisions of the Lender Liability Rule and the accompanying preamble as an enforcement policy guidance.<sup>71</sup>

#### 4. The legislative response

Two years after *Kelley*, the legislature responded to lender concerns about potential liability under CERCLA by enacting The Asset Conservation, Lender Liability, and Deposit Insurance Protection Act of 1996 (the "Asset Conservation Act"). The Asset Conservation Act amended CERCLA to clarify the scope of the secured creditor exemption in CERCLA Section 101(20)(A).<sup>72</sup> The Asset Conservation Act generally codified the prior EPA attempt, through the Lender Liability Rule,<sup>73</sup> to provide lenders with a safe harbour from CERCLA liability. The Asset Conservation Act, as with the Lender Liability Rule, permitted a lender's limited involvement with a contaminated property pre-foreclosure and a temporary ownership of a property post-foreclosure as long as the lender makes reasonable efforts to sell such property.

To identify permissible pre-foreclosure activities, the Asset Conservation Act amended the "owner or operator" definition to create a safe harbour of activities that would or would not constitute a lender's "participation in management" and specified instances whereby a lender would or would not qualify for the "owner or operator" definition.<sup>74</sup> To clarify a lender's CERCLA liability post-foreclosure, the Asset Conservation Act depicted specific circumstances under which a lender could continue to be excluded from the "owner or operator" definition after foreclosure.<sup>75</sup>

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<sup>66</sup> Gerrard, *Brownfields Law and Practice* § 3.01[5][e][iii].

<sup>67</sup> *Kelley v. Environmental Protection Agency*, 15 F.3d 1100 (D.C. Cir. 1994).

<sup>68</sup> *Kelley*, 15 F.3d at 1104–09.

<sup>69</sup> "Policy on Interpreting CERCLA Provisions Addressing Lenders and Involuntary Acquisitions by Government Entities" 40 C.F.R. § 280.200 – 280.230 (Sept. 7, 1995).

<sup>70</sup> 60 Fed. Reg. 63,517 (Dec. 11, 1995).

<sup>71</sup> *Id.*

<sup>72</sup> Pub. L. No. 104-208, 110 Stat. 3009 (Sept. 30, 1996), adding CERCLA § 101(20)(E)-(G), 42 U.S.C. § 9601(20)(E)-(G), and CERCLA § 107(n), 42 U.S.C. § 9607(n).

<sup>73</sup> As a result of the enactment of the Asset Conservation Act, the EPA and the DOJ withdrew their 1995 Enforcement Policy. See "Policy on Interpreting CERCLA Provisions Addressing Lenders and Involuntary Acquisitions by Government Entities" 40 C.F.R. § 280.200–280.230 (Sept. 7, 1995).

<sup>74</sup> 42 U.S.C. § 9601(20)(F) (1997).

<sup>75</sup> *Id.* § 9601(20)(E)(ii).

As amended, CERCLA defines the term “lender” as any of the following:

- an insured depository institution (as defined in the Federal Deposit Insurance Act);
- an insured credit union (as defined in the Federal Credit Union Act);
- a bank or association chartered under the Farm Credit Act of 1971;
- a leasing or trust company that is an affiliate of an insured depository institution;
- any person (including a successor or assignee of any such person) that makes a bona fide extension of credit to or takes or acquires a security interest from a nonaffiliated person;
- the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, the Federal Agricultural Mortgage Corporation, or any other entity that in a bona fide manner buys or sells loans or interest in loans;
- a person that insures or guarantees against a default in the repayment of an extension of credit, or acts as a surety with respect to an extension of credit, to a nonaffiliated person; and
- a person that provides title insurance and that acquires a vessel or facility as a result of assignment or conveyance in the course of underwriting claims and claims settlement.<sup>76</sup>

The term “security interest” under CERCLA is also defined broadly to include “a right under a mortgage, deed of trust, assignment, judgment lien, pledge, security agreement, factoring agreement, or lease and any other right accruing to a person to secure the repayment of money, the performance of a duty, or any other obligation by a nonaffiliated person”.<sup>77</sup>

Under the amended CERCLA statutory scheme, those activities that would constitute “participation in management” requires more than possessing the “capacity to influence” or the “unexercised right to control”.<sup>78</sup> Rather, a lender’s activities must consist of the actual participation in management or operational affairs of the facility and, while the borrower is in possession, such participation requires that the lender either: (a) exercise decision-making control over the environmental compliance of the facility such that it has undertaken responsibility for the handling and disposal of hazardous material or (b) exercise control at a level comparable to that of a manager of the facility such that it has assumed or manifested responsibility for encompassing day-to-day decision-making with respect to environmental compliance or control over all or substantially all of the operational functions<sup>79</sup> (as distinguished from financial or administrative functions<sup>80</sup>) of the facility other than the function of environmental compliance.<sup>81</sup>

The Asset Conservation Act also created a safe harbour of activities which the lender may undertake without incurring liability. Activities that do not constitute a lender’s “participation in management” include:<sup>82</sup>

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<sup>76</sup> *Id.* § 9601(20)(G)(iv).

<sup>77</sup> *Id.* § 9601(20)(G)(vi).

<sup>78</sup> *Id.* § 9601(20)(F)(i)(II).

<sup>79</sup> The term “operational function” is defined to include a function such as that of facility or plant manager, operations manager, chief operating officer, or chief executive officer. 42 U.S.C. § 9601(20)(G)(v) (1997).

<sup>80</sup> The term “financial or administrative function” is defined to include a function such as that of a credit manager, accounts payable officer, accounts receivable officer, personnel manager, comptroller, or chief financial officer, or a similar function. 42 U.S.C. § 9601(20)(G)(vi) (1997).

<sup>81</sup> 42 U.S.C. § 9601(20)(F)(ii)(II)(aa)-(bb) (1997).

<sup>82</sup> This statutory section adds a caveat that any of the listed activities must not rise to the level of “participation in management”. 42 U.S.C. § 9601(20)(F)(i) (1997). *See* 42 U.S.C. § 9601(20)(F)(iv) (1997).

- holding a security interest or abandoning or releasing a security interest;
- including in the terms of an extension of credit, or in a contract or security agreement relating to the extension, a covenant, warranty, or other term or condition that relates to environmental compliance;
- monitoring or enforcing the terms and conditions of the extension of credit or security interest;
- monitoring or undertaking one or more inspections of the ... facility;
- requiring a response action or other lawful means of addressing the release or threatened release of a hazardous substance in connection with the ... facility prior to, during, or on the expiration of the term of the extension of credit;
- providing financial or other advice or counselling in an effort to mitigate, prevent, or cure default or diminution in value of the ... facility;
- restructuring, renegotiating or otherwise agreeing to alter the terms and conditions of the extension of credit or security interest, exercising forbearance;
- exercising other remedies that may be available under applicable law for the breach of a term or condition of the extension of credit or security agreement; or
- conducting a response action under CERCLA Section 9607(d) under the direction of an on-scene coordinator appointed under the National Contingency Plan.<sup>83</sup>

If a lender forecloses,<sup>84</sup> it can still maintain its exemption from liability if it did not participate in management of the facility prior to foreclosure and, post-foreclosure, if the lender divests itself from the facility “at the earliest practicable, commercially reasonable time, on commercially reasonable terms, taking into account market conditions and legal and regulatory requirements”.<sup>85</sup> The lender may sell, re-lease (in the case of a lease finance transaction), or liquidate the facility, maintain business activities, wind up operations, undertake a response action under CERCLA Section 107(d)(1) or under the direction of an on-scene coordinator appointed under the National Contingency Plan, with respect to the facility, or take any other measure to preserve, protect, or prepare the facility prior to sale or disposition.<sup>86</sup> The statute is silent as to what actions would be needed to demonstrate a lender’s efforts to sell or otherwise dispose of the facility, and it does not specify what would be considered a sufficiently prompt sale or other disposition of the property. Rather, the Asset Conservation Act uses the same general test used in the Lender Liability Rule which relies on the “commercially reasonable” standard.

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<sup>83</sup> 42 U.S.C. § 9601(20)(F)(i) (1997).

<sup>84</sup> The term “foreclosure” is defined as acquiring a facility through any of the following: purchase at sale under a judgment or decree, power of sale, a non-judicial foreclosure sale; a deed in lieu of foreclosure, or similar conveyance from a trustee; repossession, if the facility was security for an extension of credit previously contracted; a conveyance pursuant to an extension of credit previously contracted, including termination of a lease agreement; or any other formal or informal manner by which the person acquires, for subsequent disposition, title to or possession of a facility in order to protect the security interest of the person. 42 U.S.C. § 9601(20)(G)(iii) (1997).

<sup>85</sup> 42 U.S.C. § 9601(20)(E)(ii) (1997).

<sup>86</sup> *Id.*

## IV. Status of CERCLA lender liability today

Since the enactment of the Asset Conservation Act in 1996, there has been no significant legislative or regulatory initiative regarding the specific issue of lender liability under CERCLA. The EPA did, in 1997, issue a policy statement (the “1997 Enforcement Policy”) regarding the EPA’s use of the Lender Liability Rule in interpreting CERCLA’s security interest exemption.<sup>87</sup> According to the policy statement:

“[I]n light of the substantial similarities between CERCLA’s amended secured creditor exemption and the CERCLA Lender Liability Rule, where the Rule and its preamble provide additional clarification of the same or similar terms used in the secured creditor exemption, EPA intends to treat those portions of the Rule and preamble as guidance in interpreting the exemption.”<sup>88</sup>

However, rather than offering any further clarification as to what would constitute lender liability or the scope of the secured creditor exemption, the 1997 EPA Policy Statement just served to reiterate the now withdrawn 1995 Enforcement Policy.<sup>89</sup>

Despite all of the above detailed legislative and regulatory efforts undertaken since the original enactment of the CERCLA statute in 1980, some risks facing secured lenders remain. For example, while the secured interest exemption provisions of Asset Conservation Act provided protection from CERCLA liability for secured lenders, they did not afford any protection to a party that purchased or otherwise acquired contaminated property from a secured lender.<sup>90</sup> Moreover, a lender may find that even though it may qualify for the secured interest exemption under CERCLA, that it faces liability under other federal or state environmental statutes.<sup>91</sup> Finally, the lack of case law interpreting the lender liability provisions of the Asset Conservation Act leaves the secured lender uncertain as to the exact parameters of lender liability.<sup>92</sup>

In addition to these “unknown” risks, a secured lender also faces certain known, but essentially unquantifiable, risks.<sup>93</sup> First, a borrower’s compliance with environmental regulations may cause the borrower to incur compliance costs resulting in a reduced cash flow and eventual bankruptcy.<sup>94</sup> Second, the expense of remediating a contaminated property could significantly reduce the value of the collateral and leave the lender unsecured.<sup>95</sup> Finally, a secured lender could be subject to strict liability for clean-up costs following foreclosure.<sup>96</sup>

In light of the various risks facing secured lenders, lending institutions have had to develop various creative risk management strategies. The primary risk transfer mechanism

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<sup>87</sup> See “Policy on Interpreting CERCLA Provisions Addressing Lenders and Involuntary Acquisitions by Government Entities”, 62 Fed. Reg. 36,424 (July 7, 1997).

<sup>88</sup> *Id.* at 36,425.

<sup>89</sup> The 1995 Enforcement Policy was withdrawn by the EPA and DOJ following the enactment of the Asset Protection Act. *Id.*

<sup>90</sup> *Gerrard, Brownfields Law and Practice* § 4.04[3].

<sup>91</sup> *Id.*

<sup>92</sup> *Id.*

<sup>93</sup> William L. Thomas, “The Green Nexus: Financiers and Sustainable Development”, 13 *Geo. Int’l Envtl. L. Rev.* 899 (2001).

<sup>94</sup> *Id.*

<sup>95</sup> *Id.*

<sup>96</sup> *Id.*

now used by financial institutions is environmental insurance.<sup>97</sup> Through the use of both traditional and newly available types of insurance products, a lender may substantially reduce the risk of environmental liability.

## **V. Conclusion**

No statute or regulation, environmental or otherwise, can be drafted to eliminate all areas of ambiguity or potential conflict. Nor can any statute or regulation, no matter how clearly stated its public policy goals, avoid the challenges as to their meaning and scope that are certain to follow their enactment. As evidenced by the evolution of the lender liability provisions of CERCLA and its secured creditor exemption, however, great care must be taken by the drafter of the rules and regulations so that the substance of the statute or regulation will effectuate the public policy impetus behind its enactment or adoption.

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<sup>97</sup> *Gerrard, Brownfields Law and Practice* at 28–1.

# Restoration of industrial sites under Australian environmental laws

Donna Craig\*

*Comprehensive data on contaminated sites across Australia is not available. The two most populated states (New South Wales and Victoria) each have at least 30,000 contaminated sites. Many regulatory agencies have tried to assess the risk of land contamination by reference to indicative lists of the types of land uses likely to cause soil or land contamination. Australia has a federal system with nine jurisdictions and each have different regimes relating to contaminated land. There is only one jurisdiction (Queensland) where there has been any attempt at a comprehensive identification of potentially contaminated and contaminated sites. The Commonwealth Government provides guidelines and standards but primary regulatory authority remains with state and territory governments. The paper considers the scope of liability and the role of the Commonwealth Government. Most parties with an interest in potentially contaminated land are forced to rely on risk assessment processes. For high risk properties this usually involves a site audit. This is most likely to eventuate if there is a contamination incident, on or near the land or in the groundwater, an intensification or change in use or a transaction involving the land. The legal framework relating to these issues is reviewed in the context of the New South Wales (State) land contamination regime. The provisions to “pierce the corporate veil”, in relation to remediation orders, are very important. New South Wales has unusually strong legislative provisions for attributing personal environmental liability to directors and managers. The overall situation is far from satisfactory, but is indicative of the peculiarly “Australian approach”. The governments pass huge numbers of statutes and they grow complex administrative systems under them. However, when it comes to compliance and enforcement, there is a strong preference for informal approaches. This makes it extremely difficult to study these aspects in any reliable way.*

## I. Introduction

Land contamination, in Australia, has generally arisen from the manufacture, use and disposal of chemical substances on industrial sites, or in rural areas from cattle and sheep dip sites. Other causes have been mining activities, municipal waste disposal and military uses. This latter aspect is a matter of great concern as the Australian (Commonwealth) Government is seeking to sell many of their properties for alternative uses. Comprehensive data on contaminated sites across Australia is not available. However, provisional data indicates that the two most populated states (New South Wales and Victoria) each have at least 30,000 contaminated sites.<sup>1</sup> One of the most notorious examples of contaminated industrial land is Homebush Bay which was the site of the Year 2000 Olympics in Sydney. It was contaminated with levels of dioxin 6,500 times above the accepted levels for residential areas<sup>2</sup> and was the subject of a huge remediation programme and on-going monitoring.

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<sup>1</sup> Department of Environment and Heritage, *State of the Environment Australia 2001: Human Settlements Theme Report*, Commonwealth of Australia, Canberra, 2001.

<sup>2</sup> Hogarth, M “Dioxin Time Bomb under the Green Games”, *Sydney Morning Herald*, 19 April 1997, p.6.

Many regulatory agencies have tried to assess the risk of land contamination by reference to indicative lists of the types of land uses likely to cause soil or land contamination. Australia has a federal system with nine jurisdictions (six states, two territories and the Commonwealth) and each have complex legal regimes relating to identifying, assessing, allocating liability, remediating and determining future uses of contaminated land. Many jurisdictions have some kind of register of contaminated lands and clean-up orders. There is only one jurisdiction (Queensland) where there is any attempt at a comprehensive identification of potentially contaminated and contaminated sites.

The Commonwealth Government provides guidelines and standards but primary regulatory authority remains with state and territory governments. In most cases there is no reliable identification process for industrial land which is, or may be, contaminated. Most parties with legal and economic interests in contaminated land are forced to rely on risk assessment processes. For high risk properties this usually involves a site audit. This is most likely to eventuate if there is a contamination incident, on or near the land or in the groundwater (orders and licences under pollution and contaminated land legislation), an intensification or change in use (re-zones and development applications) or a transaction involving the land (sale, lease, loans or corporate take-overs and re-structuring).

## **II. Scope of environmental liability**

Under Australian law, environmental liability should be considered in a range of contexts:

- Civil and criminal liability of corporations for pollution incidents which breach environmental laws (statutory and common law). This can result in damages, fines or injunctions in relation to incidents;
- Personal civil and criminal liability of directors and managers in relation to pollution incidents;
- Civil and criminal liability of corporations, directors and managers in relation to pre-existing and gradual environmental contamination. This can result in investigation and clean-up orders;
- Orders which affect the planning, profitability and viability of businesses (orders to install pollution equipment, cease or vary activities, forfeiture of bonds and other financial security and the operation of other performance-based measures such as load-based licencing).

The range of parties who could incur environmental liability (as individuals or corporations) is very broad:

- Parties who own or occupy property (they may even be liable after they transfer their interests);
- Parties who purchase or lease assets or businesses and are considered to be in occupation or control;
- Receivers and liquidators and other company administrators who enter into occupation or control of the land;
- Banks and other financial institutions (who may enter into occupation or control of land or suffer a reduction in the value of their securities);
- Corporations that engage in takeovers and mergers (they may inherit liability);
- Owners, transporters and recipients of materials (particularly chemicals, toxic substances and wastes);

- Directors and persons concerned in the management of corporations, government departments and statutory authorities (including local councils);
- Owners of adjoining or adjacent land;
- Trustees, executors and, in some case, agents.

The factors which may go to indicate “control” or “occupation” are:

- The carrying out of activities on the premises;
- The ownership of plant on the premises;
- Participation in the day-to-day management of the corporation or activity (particularly important for lenders and their appointees).

It is only in the last decade that Australian governments have tried to seriously grapple with liability issues related to the financial cost of remediation. Most legislatures have incorporated the “polluter pays” principle as a basis of liability. The polluter is usually considered to be the party principally responsible for the contamination. However, the state and territory laws also target other parties such as “innocent” owners and occupiers (not the original or principal contaminators) in trying to deal with liability for historic contamination. Effectively, New South Wales and Victoria apply joint and several liability in a way that is similar to the United States *Comprehensive Environmental Response Compensation and Liability Act (CERCLA)*, 1980, but without the resource of a Superfund.

### III. National guidelines

The Commonwealth has no legislation specifically dealing with contaminated land. It has sought to develop a national co-ordinated strategy through two sets of Guidelines and a National Environmental Protection Measure (NEPM):

- The ANZECC/NHMRC *Guidelines for the Assessment and Management of Contaminated Sites*;<sup>3</sup>
- The ANZECC Discussion and Position Papers on *Financial Liability for Contaminated Sites*; and
- The *National Environment Protection Measure (1999)*.

#### 1. ANZECC/NHMRC Guidelines

These Guidelines proceed from the precautionary approach that the prevention of contamination should be the policy objective. However, once it has occurred, the goal is to maximize, to the extent practicable, the future uses of the site. Technical feasibility and net social benefits are to be taken into consideration in determining the appropriate clean-up strategy for a particular site.<sup>4</sup> Where there is a threat to human health, the site must be remediated to the extent necessary to minimize these risks. In other situations (no threat to human health), a lesser degree of remediation may be acceptable. The Guidelines outline a number of implementation strategies for state and territory governments.<sup>5</sup>

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<sup>3</sup> Australian and New Zealand Environment and Conservation Council, National Health and Medical Research Council, *Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites*, Australian Government Publishing Service, Canberra, 1992.

<sup>4</sup> ANZECC/NHMRC *op. cit.* n 4, pp 4–5.

<sup>5</sup> *Ibid.*, p. 6.

## 2. Financial liability for contaminated lands

The *ANZECC Position Paper* suggests that the “polluter pays” principle should apply, where the polluter is solvent and identifiable. However:

Where the Polluter is insolvent or unidentifiable, the person(s) in control of the site, irrespective of whether that person is the owner or the current occupier (or in certain instances the lender), should be liable, as a general rule, for the costs of any necessary remediation.<sup>6</sup>

The *ANZECC Position Paper* recommends a statutory right to recover costs incurred in the clean-up, from the polluter or polluters, in the event that an occupier, owner or public authority undertakes the clean-up.<sup>7</sup>

The *Discussion Paper* suggests a hierarchy of decreasing government liability where the activities causing contamination occurred:

1. At the direction /order of a responsible authority;
2. With the approval of a responsible authority;
3. In the absence of law, but responsibly;
4. In the absence of law, but irresponsibly;
5. Illegally.<sup>8</sup>

The concepts of “owner” and “occupier” liability are justified on the basis that these parties will be the direct beneficiaries of the remediation. Generally, a lender will become liable for clean-up costs and damages when they can be categorized as an owner and occupier. The position will be similar for receivers, liquidators and Trustees in Bankruptcy. Particular risks arise when arrangements are made for corporations to “trade out” their debt or to mitigate losses. My years in private legal practice also revealed that the indemnities given to insolvency practitioners are woefully inadequate and the risk assessment procedures and contractual provisions, adopted by lenders, need considerable revision to deal with these issues.

The position of the purchaser of the land, in negotiating the transaction and undertaking their own inquiries, and the obligations of the vendor, to disclose land contamination, involves complex legal issues under common law, conveyancing statutes and the *Trade Practices Act 1974(Cth)*.<sup>9</sup> When the purchaser becomes the occupier of the land they are certainly candidates for liability in most jurisdictions. The issue remains whether they have a right of action against the vendor under the contract or statutory remedies.

## 3. National environmental protection measure (assessment of site contamination measure)

This National Environmental Protection Measure (NEPM) was issued by the Commonwealth government in 1999 and it builds on the earlier ANZECC Guidelines in attempting to developing a nationally consistent approach to land contamination. It aims to provide an approach to site assessment taking into account the associated risks, community interest and the orderly development of land. It does not attempt to apportion responsibility.

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<sup>6</sup> *Op. cit.* n 5. p 9.

<sup>7</sup> *Ibid.*, p 10.

<sup>8</sup> *Ibid.*, p 23.

<sup>9</sup> For a detailed discussion of liability in ownership, sales and development see Lipman, Z. and Bates, G., *Pollution Law in Australia*, Lexis Nexis Butterworths, Sydney, 2002, pp 336–347.

The end result is that the state and territory jurisdictions have been left with sufficient leeway to develop their own legislation rather than a uniform statutory approach.

The NEPM sets out guidelines covering the topics of general investigation levels for soil and ground water, sampling and data collection laboratory analysis, health risk assessment, ecological risk assessment, groundwater contamination, health investigation levels, community consultation, occupational health and safety, and competencies of relevant environmental professionals.

The NEPM makes it clear that, in assessing the contamination, the site assessor and others should take into account the following preferred hierarchy of options for site clean-up and/or management:

- if practicable, on-site treatment of the contamination so that it is destroyed or the associated risk is reduced to an acceptable level, and off-site treatment of excavated soil, so that the contamination is destroyed or the associated risk is reduced to an acceptable level, after which the soil can be returned to the site;
- if on-site treatment is not practicable, consolidation and isolation of the soil on-site by containment with a properly designed barrier, and removal of contaminated material to an approved site or facility, followed, where necessary, by replacement on-site with appropriate material;
- where the assessment indicates that remediation would have no net environmental benefit or would have a net adverse environmental effect, implementation of an appropriate management strategy;
- in cases where no readily available or economically feasible method is available for remediation, it may be possible to adopt appropriate regulatory controls or to develop other forms of remediation.

#### 4. Corporations law

Liability for contaminated lands can significantly affect the operation of the Australian *Corporations Law 1991 (Cth)*. Directors and officers, in the post Enron world, have to exercise a reasonable degree of care and due diligence in discharging their duties. In this context, liability for contaminated land could affect:

- Prospectus statements and claims;
- Annual Reports and accounts (accounting standards refer to environmental liabilities and potential liabilities);
- Duties of Directors and Officers (personal and corporate); and
- Corporate due diligence (environmental) in transactions and the current activities of the corporation.

The Australian *Corporations Law* was amended in 1998 to provide for more detailed environmental reporting. Section 299(1)(f) requires directors to include, in annual directors' reports, details of the company's environmental performance in relation to environmental regulation. This provision applies to all public companies, registered managed investment schemes and large proprietary companies satisfying at least two of the following:

- \$10 million consolidated gross revenue;
- \$5 million consolidated gross assets; and
- 50 or more employees.

It obviously follows that corporations need to have a system in place to demonstrate how they comply with these requirements. This will include appropriate environmental

management systems. However, identification and compliance with environmental requirements will need to go beyond the minimum necessary for certification of environmental management systems under the *ISO 14000* series.

#### **IV. Legal frameworks relating to contamination of industrial land – New South Wales as an example**

Contaminated industrial sites, in New South Wales, tend to be geographically clustered in locations that have historically been areas of heavy industry or transport hubs (e.g. Newcastle, Wollongong, south-eastern metropolitan Sydney, mid-western metropolitan Sydney). Nonetheless, contamination occurs in many other areas. Any site that poses a significant risk of harm to human health and/or the environment, as defined by the *Contaminated Land Management Act, 1997* (CLMA), is managed by the Environment Protection Authority (EPA). Land contamination on other sites is dealt with by local councils (planning authorities) through the planning and development control process.

The EPA has broad powers to order the investigation and remediation of these more seriously contaminated sites, under the CLMA. *State Environmental Planning Policy No. 55* gives directions to councils on development on contaminated land and sets out the situations where remediation on land will require development consent. These are the two most important regulatory mechanisms that are likely to be applied to industrial land. The Department of Urban Affairs (DUAP) and the EPA has published *Managing Land Contamination-Planning Guidelines (1998)*. Table One in the *Guidelines* has a lengthy list of potentially contaminating activities which councils refer to in the planning and development consent process. The *Unhealthy Building Land Act 1990* covers unhealthy building land. It defines unhealthy building land as land considered by the EPA to be “prejudicial to health”. Contaminated land is most likely to be dealt with under the CLMA.

##### **Contaminated Land Management Act 1997**

The CLMA provides a structured approach to contaminated land. It is underpinned by two major principles:

- a) The philosophy of risk of harm – liability is apportioned according to risk of harm arising from contamination.
- b) Polluter pays – liability is first directed at the “person responsible” and to others in the hierarchy where the polluter cannot be practically found.<sup>10</sup>

The following is a brief summary of the regime created by this legislation and related instruments and policies:<sup>11</sup>

##### **1. Definition of contaminated land**

The CLMA defines contaminated land as:

the presence in, on or under the land of a substance at a concentration above the concentration at which the substance is normally present in, on or under (respectively) land in the same locality, being a presence that presents a risk of harm to human health or any other aspect of the environment.

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<sup>10</sup> Lipman and Farrier, n 11, p. 320.

<sup>11</sup> This summary substantially extracts from Environmental Defender Office (NSW) *Fact Sheet 17: Contaminated Land*, EDO, Sydney, 2001.

## **2. Significant risk of harm**

The CLMA is triggered when land is contaminated in a way that it presents “significant risk of harm” to human health or the environment. The EPA makes this assessment taking into consideration the following matters:

- a) whether the contamination of the land has already caused harm (for example in the form of toxic effects on plant or animal life);
- b) whether the substances are toxic, persistent or bioaccumulative or are present in large quantities or high concentrations or occur in combinations;
- c) whether there are exposure pathways available to the substances (that is, the routes whereby the substances may proceed from the source of the contamination to human beings or other aspects of the environment);
- d) whether the uses to which the land and land adjoining it are currently being put are such as to increase the risk of harm (as for example, use for child care, dwellings or domestic food production);
- e) whether the approved uses of the land and land adjoining it are such as to increase the risk of harm;
- f) whether the substances have migrated or are likely to migrate from the land (whether because of the nature of the substances or because of the nature of the land);
- g) any guidelines approved by the EPA on contamination and remediation.

## **3. Powers of the EPA**

If the EPA concludes that there is a significant risk of harm, it has two main powers. It can declare an area an investigation area and order an investigation of the site (Sect. 15–18) and /or declare a site to be a remediation site and order a clean-up (Sect. 21–25).

## **4. Hierarchy of responsibility**

The CLMA sets out a “hierarchy” of people who the EPA may order to carry out investigation or remediation work. The first choice is the person who had principal responsibility for the contamination. If it is not practicable for the order to be given to that person, then the order is to be given to the owner of the land and, if that is not practical, then to the “notional owner” of the land. A “notional owner” is a person who has an interest in the land that enables the person to transfer the freehold title, and includes a mortgagee in possession.

## **5. Investigation orders**

If the EPA believes on reasonable grounds that certain land is contaminated in such a way as to present a significant risk of harm, it can declare the land to be an “investigation area”. The declaration must be published in a newspaper and public submissions invited on whether or not an investigation order should be made. An investigation order is an order to the appropriate person (see above) to report on the nature and extent of the contamination, the harm and the risk posed by the harm. Failing to comply with an investigation order is an offence, carrying a penalty of up to \$137,500.<sup>12</sup>

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<sup>12</sup> All amounts quoted under the CLMA are in Australian currency.

## **6. Remediation orders**

The EPA can declare the land to be a "remediation site". It need not have been the subject of an investigation order before being declared a remediation site. They must advertise the declaration in a newspaper and invite public submissions. The EPA may then issue a remediation order, which may require the preparation of a remediation plan prior to works commencing. Failure to comply with a remediation order is an offence carrying a penalty of up to \$137,500. The remediation works may also require development consent under SEPP 55.

## **7. Appeals against orders**

A person who is issued with an investigation order or remediation order may appeal to the Land and Environment Court within 21 days of the making of the order. The Court may confirm, alter or revoke the order.

## **8. Enforcement against companies and company directors**

The CLMA contains provisions to prevent possible attempts by company directors to avoid their responsibilities under the Act. If a director winds up a company to avoid complying with an investigation or remediation order, then the director may be personally required to carry out the works required by the order. If the director fails to comply with the order, the director faces fines of up to \$66,000. The Land and Environment Court can also order the holding company of a subsidiary which is wound up (prior to complying with a remediation order) to fulfil the terms of the order, if the subsidiary was wound up within two years of the court's order.<sup>13</sup> Any person may take action to remedy or restrain a breach of the CLMA, even if the person is not directly involved with the situation.

## **9. Voluntary agreements**

The EPA can enter into a voluntary agreement in respect of investigation or remediation of the land.<sup>14</sup> In such cases, the EPA should not proceed to make an investigation or remediation order against the person who entered into the agreement.

## **10. Site audits**

The EPA may accredit site auditors. Site audits cover such things as investigating the extent of contamination and formulating a remedial action plan. A site audit by an accredited site auditor is not necessary in all situations.

## **11. The duty to notify**

A person who becomes aware that his or her activities have contaminated land in such a way as to present a significant risk of harm must notify the EPA of this as soon as practical.<sup>15</sup> An owner of land must also notify the EPA of the contamination, regardless of whether the owner caused the contamination. In both cases failure to notify the EPA is an offence carrying a fine of up to \$66,000 for corporations and \$33,000 for individuals. The legal position in relation to the obligation to notify the EPA about potential contamination is not clear, at the present time.

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<sup>13</sup> CLMA, Sections 63 and 65.

<sup>14</sup> CLMA, Section 26.

<sup>15</sup> CLMA, Section 60.

## **12. Public access to information**

The EPA keeps a detailed public register which includes such information as what areas have been declared investigation or remediation areas and copies of investigation and remediation orders.

## **13. Development consent process for remediation works**

Some remediation work will require development consent under SEPP 55. Remediation works into two categories. Category 1 remediation works require development consent, while Category 2 remediation works do not. The consent authority is generally the local council, unless the works are to be carried out on land that is declared to be a remediation site under the CLMA. In that case, the consent authority is the Minister for Urban Affairs and Planning and the works are deemed to be State Significant Development under the *Environmental Planning and Assessment Act 1970* (EP&A Act).

## **14. Preventing land contamination**

When considering a development application, local councils can take into account possible future contamination of the land caused by the proposed activity. Conditions may be placed on development consents to minimize the possibility of future contamination.

Many activities causing contamination will be designated development under the EP&A Act. In these cases, the developer must prepare an Environmental Impact Statement, and members of the public can make submissions. In addition, most contaminating activities will be defined as “scheduled activities” under the *Protection of the Environment Operations Act 1997* (PEO Act) and will, therefore, require an environment protection licence from the EPA. An environment protection licence may contain conditions directed at preventing or minimizing contamination due to pollution from the activity. The EPA may impose conditions requiring the person carrying on the activity to lodge a bond to cover possible remediation works in future. A licence for a waste landfill site may include conditions requiring a closure plan to be prepared.

## **15. Enforcement and other actions by the EPA – current record**

As at 31 December 1999, there were 92 NSW contaminated sites the subject of orders, declarations, notices or voluntary agreements under the CLMA. The sites were scattered over 41 Local Government Areas. It is difficult to estimate the total number of contaminated sites in NSW.<sup>16</sup>

There are 13 sites under the CLMA for which the EPA has issued notices for maintaining remediation (sect. 28). These are notices to the owners or occupiers requiring them to maintain remediation action for the land. Two sites under the CLMA have voluntary investigation proposals (sect. 19), in which one or more people have made proposals to investigate the land. As a result, the EPA will agree not to issue an investigation order if the investigation is carried out in accordance with the proposal and the EPA is satisfied with the result.

Two sites under the CLMA have voluntary remediation proposals (sect. 26), in which one or more people have made proposals to remediate the land. The EPA will agree not to issue a remediation order if remediation is carried out in accordance with the proposal and the EPA is satisfied with the result. One site under the CLMA has been declared a remediation site (sect. 21). The EPA may declare land to be a remediation site if the land has been found to be contaminated in such a way as to present a significant risk of harm. A further 35 sites subject

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<sup>16</sup> The data in this section is extracted from *NSW State of Environment 2000*, New South Wales EPA, Sydney, 2000 at Chapter 4, p 2.

to former notices issued under the *Environmentally Hazardous Chemicals Act 1985* since 1986 are no longer regulated by the EPA because required investigations and/or remediation measures have been implemented.

## VI. Conclusions

Australia has a very significant problem associated with contaminated land, particularly in New South Wales and Victoria. It has all the usual difficulties associated with identifying appropriate and cost effective remediation strategies, ensuring that they are carried out and monitored, notifying parties (in transactions affecting the land) about the relevant facts and ensuring that future uses of the land are safe. The issues related to what kind of remediation and how far it should be taken before new land uses are approved, by regulatory agencies, are common to most jurisdictions around the world.

Australian jurisdictions are not short of laws or Guidelines! However there is a fundamental problem in that no register(s) or inquiry process can provide a reasonably comprehensive identification of contaminated land anywhere in Australia. The Australian Government has played a weak role, in a regulatory sense, and there is no uniformity in land contamination legislation in the eight Australian States and Territories. Only Queensland has a system in place whereby this objective may be achieved. There does appear to be a reasonable degree of consistency in the technical standards and approaches adopted by experts and regulatory agencies.

The review of the contaminated land regime, in New South Wales, demonstrates many of the above points. The legislation came into force in 1997, long after the "horse had bolted". There is no adequate process to systematically identify historic contamination. On the other hand, the EPA is given extremely wide powers, there is a strong obligation to notify about contamination and there is one of the widest citizen enforcement provisions in the country. Funding is an enduring problem and there are few citizen suits of this kind. The provisions to "pierce the corporate veil", in relation to remediation orders, are very important. New South Wales has unusually strong legislative provisions for attributing personal environmental liability to directors and managers. There is also improved transparency in relation to remediation orders.

The current record of the EPA, in issuing orders under the CLMA, is not inspiring. It should be noted that Australia is not a litigious nation (compared to the United States) and informal, negotiated and administrative approaches are usually preferred. In the case of land contamination in New South Wales, a huge amount of activity occurs under voluntary remediation orders or other forms of voluntary remediation in the face of threatened regulatory action. Similar measures are often taken by companies to install pollution control technology, and take other mitigation measures, to avoid formal orders. The cost of these actions often exceeds any amount that would be awarded by a court in fines or damage. From the corporate perspective, these are likely to be the large, unplanned for, items of expenditure.

The trigger for identification of contaminated industrial land is usually the planning and development control process. In New South Wales, a contamination audit will usually be required prior to a re-zone to a more sensitive use. This will have to be submitted to the local council. Councils seek to avoid their own potential legal liability<sup>17</sup> in this process. At this point there is a definite possibility that historic contamination could come to the attention of regulatory agencies. The EPA intervenes if a site is significantly contaminated. However, there is a lingering concern about the capacities of councils to effectively deal with the many other instances of contamination.

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<sup>17</sup> See *Alec Finlayson Pty Ltd v Armidale City Council* (1994) 84 LGERA 225.

The overall situation is far from satisfactory, but is indicative of the peculiarly “Australian approach”. The governments pass huge numbers of statutes and they grow complex administrative systems under them. However, when it comes to compliance and enforcement, there is a strong preference for informal approaches. This makes it extremely difficult to study these aspects in any reliable way.

## **IV. Case studies on biodiversity law – beyond establishing parks**

# Regional biodiversity collaboration – the ASEAN approach

*Koh Kheng-Lian\**

*This paper focuses on some of the more recent initiatives undertaken by ASEAN in the area of biodiversity conservation. After noting the ASEAN legal and policy frameworks on biodiversity, and ASEAN’s governance structure on biodiversity, it goes on to examine the “benefits beyond parks” approach that was recently reflected in the Guidelines and Criteria in the Selection and Establishment of ASEAN Heritage Parks. ASEAN has also included an initiative on “Transboundary Peace Parks” in the “ASEAN-Korea Environmental Cooperation Project (AKECOP) – Restoration of Degraded Forest Ecosystems in Southeast Asia Tropical Regions”. This project will foster exchanges and facilitate cooperative activities including scientific and monitoring. ASEAN has also identified Peace Parks within ASEAN member states. Finally it is pointed out that ASEAN is incorporating “the ecosystem approach” which is being developed by the Conference of Parties (COP) of the Convention on Biological Diversity.*

*Collaboration takes the form of the “ASEAN Way” which is typified by a non-interventionist approach through formulation of policies, plans of action, strategies and other soft laws. Much of the implementation of these legal instruments has to be taken at the national rather than the regional level.*

## I. Introduction

The Association of Southeast Asian Nations (ASEAN) was established in 1967 by five founding members, namely Indonesia, Malaysia, the Philippines, Singapore and Thailand, subsequently joined by Brunei, Viet Nam, Myanmar, Cambodia and Laos. It was established to promote regional peace and stability, and to accelerate economic growth, social progress and cultural development in a spirit of cooperation.

Rich in biodiversity with a variety of ecosystems including forests, mangroves, corals, and mountain ecosystems, ASEAN member states have since 1978 collaborated in the area of environment including biodiversity.

The theme of this session is “Case Studies on Biodiversity: Beyond Establishing Parks”. I shall say a few words on the theme before dealing with the ASEAN approach to biodiversity collaboration. The traditional approach to conservation of biodiversity was the mere building of “fences” around “parks”. Such cloistered areas were then taboo to human intervention as it was thought that this would inevitably lead to their degradation. This extreme approach has its disadvantage and overlooks the “peoples” approach, particularly as developing countries aim at alleviating poverty. The call for an integrated approach to sustainable development has, in the context of biodiversity, meant that protected areas are not an end in themselves but, as

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IUCN-WCPA (World Commission on Protected Areas) has pointed out, they are “humanity’s most basic concerns”. The WCPA report states:

“... protected areas contribute to development in many ways – as a sustainable supplier of natural products, as a store of valued biodiversity. As protectors of vital water supplies, as centres of tourism and cultural assets.... If protected areas are to contribute fully to sustainable development, they must meet people’s needs.”<sup>1</sup>

This paper will examine the extent to which ASEAN’s approach to biodiversity conservation has adopted the “beyond parks” approach. First, a brief survey of ASEAN’s instruments pertaining to biodiversity.

## II. ASEAN’S biodiversity instruments

### 1. Hard law instruments

- (a) 1985 – ASEAN Agreement on the Conservation of Nature and Natural Resources.
- (b) 2000 – The ASEAN Framework Agreement on Access to Biological and Genetic Resources (Draft text, 24 February 2000).<sup>2</sup>

According to the Hanoi Plan of Action 1999–2004, this ASEAN Framework Agreement is expected to adopt a Protocol on access to genetic resources by 2004.

- (c) 2002 – ASEAN Agreement on Transboundary Haze Pollution.

Although it deals with control of forest fires, nonetheless, this Agreement provides an important insight into the kind of collaboration ASEAN may enter in the future.

### 2. Soft law instruments

#### (a) Programmes and Plans of Action

- 1978–1992: ASEAN Sub-regional Environmental Programme (ASEPs II, III and IV) Programme on Nature Conservation and Terrestrial Ecosystems.
- 1992–1998 : ASEAN Strategic Plan of Action  
Strategy 5: Establish a regional framework on biological diversity conservation and sustainable utilisation of its components.
- 1999–2004: Hanoi Plan of Action

The Hanoi Plan of Action 1999–2004 was formulated under the ASEAN Vision 2020 which calls for a “clean and green ASEAN with fully established mechanisms for sustainable development to ensure the protection of the region’s environment, the sustainability of its natural resources and the high quality of life of its peoples”. It is a continuum of the ASEAN Strategic Plan of Action. In particular, the Hanoi Plan of Action calls for the protection of the environment and promotion of sustainable

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<sup>1</sup> IUCN, *Parks for Biodiversity*, 1999 at p. 7.

<sup>2</sup> [www.grain.org/brl/asean-access2000.cfm](http://www.grain.org/brl/asean-access2000.cfm)

development. The Plan sets out some time frames and also focuses on the ASEAN Heritage Parks initiative:

- Strengthen the ASEAN Regional Centre for Biological Conservation by establishing networks of relevant institutions and implementing collaborative training and research activities by 2001;
- Promote regional coordination for the protection of the ASEAN heritage parks and reserves;
- Strengthen institutional and legal capacities to implement Agenda 21 and other international environmental agreements by 2001;
- Harmonise the environmental databases of member countries by 2001.

(b) *Declarations, Guidelines, etc*

- 1984 – ASEAN Declaration on Heritage Parks and Reserves
- 2001 – Guidelines for Determining ASEAN Heritage Parks
- 1997 – Memorandum of Understanding on ASEAN Sea Turtle Conservation and Protection

### **III. ASEAN’s governance on biodiversity conservation**

ASEAN governance structure in biodiversity conservation is important in evaluating the efficacy of collaboration in this area. It has well-established governance in biodiversity conservation to effectively develop and coordinate policies and programmes on a regional basis. However, it lacks the structure for effective implementation of its programmes and policies and much is left to individual member states to carry them out. ASEAN serves as a complementary to both the global and national environmental governance system on biodiversity. The current architecture of its organizational framework is geared toward this role. Apart from the meetings of the ASEAN Heads of States, the ASEAN Officials on the Environment (ASOEN), and the ASEAN Ministerial Meetings on the Environment (AMME) which together lay down policies, formulate soft law declarations, much of the work on biodiversity is carried out by the subsidiary body of ASOEN, namely, the Working Group on Nature Conservation and Biodiversity (which is one of the three ASEAN Working Groups under ASOEN). The link between the Working Group and the member states is through the National Focal Point in each country.

So far as “external links” (ASEAN and the global community), are concerned, the ASEAN Regional Centre for Biodiversity Conservation (ARCBC), established in 1998, provides the essential role. It is based in the Philippines. ARCBC was sponsored by the European Community and works closely with it. By setting up a network of institutional links among ASEAN countries and between ASEAN and EU partner organizations, the ARCBC is responsible for, for example: establishing an intra-ASEAN and ASEAN/EU network of institutional links; analysing, documenting and disseminating information on regional biodiversity conservation; establishing and maintaining an appropriate database and information referral system; assisting institutions and stakeholders in policy analysis.

ASEAN also forms other global networks comprising countries and international organizations – for example, the United States, Australia, Japan; international organizations such as the Asian Development Bank, World Bank, IUCN – The World Conservation Union, WWF (World Wide Fund for Nature) and UN agencies like the United Nations Environment Programme (UNEP) and the United Nations Development Programme (UNDP). These countries and organizations provide the technical assistance and the funding for projects and other activities.

The practical work of the Centre is carried out through four programme undertakings:

- (1) *Networking and Institution Building*, which establishes a regional network via the National Biodiversity Reference Units (NBRUs) connecting scientific knowledge and promoting information exchange and synergies on biodiversity. It develops and implements an exchange programme for professors and researchers among ASEAN institutions; designs and implements thematic workshops and proposes policies for biodiversity conservation. Seven ASEAN States have established NBRUs.
- (2) *Training and Extension* which conducts training courses.
- (3) *Research and Development* which coordinates regional efforts in determining research priorities.
- (4) *Education and Training* which designs training courses to carry out its objectives.

#### **IV. Traditional parks: Two case studies in the ASEAN region**

Two case studies were conducted on traditional parks including those in the ASEAN region.<sup>3</sup> These parks totally excluded local people from consideration when they were initially established. These included the Gunung Leuser, the first National Park in 1980 in Indonesia, and Khao Yai in Thailand.

##### **Gunong Leuser**

According to the report on People-Park Conflicts: "Local resentment of the Park is particularly strong in Aceh Tenggara District, where 82 per cent of the land was set aside for conservation. The under-equipped and understaffed national park guards appeared to have had no effect on the rapid destruction resulting from illegal logging and agricultural encroachment. Park officials who reported illegal practices to the police or local government authorities were threatened". Any new initiatives would appear doomed without a fundamental shift in the relationship between the park managers, the local government, and village communities.

##### **Khao Yai**

Enforcement measures following the establishment of the National Park met with hostility and resulted in armed clashes between Royal Forestry Department personnel and villagers, with loss of life on both sides. Despite aggressive protection measures, illegal activities in the park continued, mainly poaching and the illegal removal of timber and other forest products.

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<sup>3</sup> Michael Wells and Katrina Brandon, *People and Parks, Linking Protected Area Management with Local Communities* (The World Bank, The World Wildlife Fund, U.S. Agency for International Development), 1992, pp. 9–10.

These are two of many examples of traditional parks around the world where there existed a hostile attitude between people and management. The people who had lived in the parks before they were established as national parks were either forcibly evicted or allowed to remain in small enclaves inside the boundaries but legally excluded from the parks. Under the traditional parks, management did not extend beyond park boundaries or into human settlements bordering the protected area. This prevents a multi-use approach which has advantages. First, a single management authority is responsible for the protected area as well as that outside where human settlements may be found. A single management can facilitate and coordinate conservation and development aims. Second, it will gain support from the people as their needs will be taken into consideration. Thus the linkage between conservation and development can be forged.

ASEAN can play a role in collaborating with various organizations to formulate policies, draft conservation agreements and plans of action that reflect the thinking and experiences of other countries in park management. For example, it had the technical assistance of IUCN to draft the ASEAN Agreement on the Conservation of Nature and Natural Resources, 1985. This has been regarded as a very forward-looking instrument. Under strategy 5 of the ASEAN Strategic Plan of Action on the Environment, its members seek to establish a regional framework on biological diversity conservation and sustainable utilization of its components. Regional collaboration is needed to rationalize conservation approaches. Also, as a region, conservation efforts can be achieved.

## **V. Beyond “traditional parks”: The ASEAN approach**

Although ASEAN has been involved in conservation measures for some 24 years, it is only recently that it is beginning to be more active in its conservation efforts. The Rio 1992 summit provided a catalyst to these efforts, and with the realization of the disaster that has been wrought on biodiversity by the Indonesian haze it has furthered its efforts in collaboration with partners to be proactive in its conservation efforts. Also, with the establishment of the ARCBC, many activities can now be organized.

In examining the work of ASEAN in biodiversity conservation, past and present, let us see whether ASEAN has adopted a “beyond parks” approach in the conservation of parks. This can be considered at two levels: first, at the regional level emanating from policies, programmes, plans of action and hard law instruments of the decision-making bodies of ASEAN (above), particularly at the ASOEN and that of the Working Group. Second, at the national level.

### **1. ASEAN Heritage Sites**

The ASEAN Declaration on Heritage Parks and Reserves, 1984 has as its objective the maintenance of ecological processes and life support systems, preservation of genetic diversity, sustainable utilization, educational, research, recreational and tourism values. The criteria contain elements that provide for scope of human activities in, for example, “sustainable utilization” and “tourism values”. The Declaration was adopted in 1984 and it was only in December 2001 that the ASEAN Working Group on Nature Conservation and Biodiversity (AWGNCB) finalized the Guidelines for determining ASEAN Heritage Parks under the Declaration. One of the objectives is “to generate greater collaboration between member countries in preserving their shared natural heritage”.

In examining whether the ASEAN Heritage Parks adopts a “beyond parks” approach let us examine one of the Guidelines: “Ecological Completeness – The site must demonstrate

wholesome ecological processes and must have the capability to regenerate with minimal human intervention”.

What does “minimal human intervention” mean? Much depends on how it is put into practice. At the extreme end, it could mean a “fences and taboo” approach. How minimal is minimal? Does it have room for human interaction and activities envisaged under the UNESCO “Man and the Biosphere Programme (MAB)”?

Some of the ASEAN Heritage Parks and Reserves which have been identified in the preliminary list are coastal mangrove/swamp systems, inland swamp/riverine systems, and freshwater lake systems. In the case of coastal mangrove/swamps, the following have been included: Lorentz (Indonesia), Mekong Delta (Viet Nam), Irrawady Delta (Myanmar) and Bintuni Bay (Indonesia). Under freshwater lakes systems, the following have been recommended: Danau Sentarum (Indonesia), Tonle Sap (Cambodia) and Danau Bian (Indonesia).

These are representative ecosystems which are intended to form part of the ASEAN heritage.

Many of these areas, such as Lorentz and Tonle Sap, are under great human pressures on both land and water resources, and biodiversity is under stress and threats. The MAB provides one of the foremost challenges of the preservation of the biosphere and the material needs of man as the Programme performs a conservation, logistic (international network and cooperation) and development function. MAB is suited to some of the ASEAN listed ecosystems such as the terrestrial and coastal mangrove swamps, and the freshwater ecosystems. These are areas rich in genetic resources. They are also areas of great human activities. Biosphere reserves are divided into three main areas in order to complement the activities of nature conservation and use of natural resources: these areas are core areas to ensure protection of the ecosystem. Generally, no human activity is carried out in the core area except research and monitoring. Second, a buffer zone, contiguous to the core area. Activities are organized so that they do not disturb the objectives of the core area. Experiments can be carried out to explore ways to rehabilitate the core areas. The activities can include tourism and recreation. Third, an outer transition area which may have a variety of activities such as agricultural activities, and human settlements. Local communities can participate as can conservation agencies, scientists, civil associations, cultural groups, private enterprises and stakeholders. As MAB aims at developing sustainable development and management of natural resources, the transition area is of great economic and social significance for regional development.

ASEAN should encourage its member states to be signatories to UNESCO and be part of the MAB network (even though a country is not a member of UNESCO, it can still be part of the MAB network). For example, Cambodia is a member and UNESCO has assisted in improving the biodiversity in Tonle Sap lake and it was designated a MAB site in 1997. Tonle Sap is also one of the recommended ASEAN Heritage sites. A study should be conducted to see how many of the preliminary-listed ASEAN Heritage sites could benefit from the MAB and form part of its world network of new protected areas.

## 2. Transboundary Protected Areas and “Peace Parks”

IUCN-WCPA points out that the benefits beyond conservation in Transboundary Protected Areas (TPA) and “Peace Parks” are under an ecosystem management approach:<sup>4</sup>

“There is...growing recognition that effective biodiversity conservation depends on an ecosystem management approach that integrates protected area

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<sup>4</sup> For ESM approach, see *infra*. See also Koh Kheng Lian & Nick Robinson, “Strengthening Sustainable Development in Regional Inter-Governmental Governance: Lessons from the ‘ASEAN Way’”, *Singapore Journal of International & Comparative Law* (2002) 6 Sing JICL, 640–682.

management into wider land- and water-use planning. Ecosystems and species do not recognise political borders, which were usually defined for historical and geopolitical reasons, without reference to ecological functions or processes. Protected areas that are established and managed across borders – Transboundary Protected Areas – can therefore provide an important tool for coordinated conservation of ecological units and corridors.

The benefits of transboundary protected areas can go well beyond biodiversity conservation. Such areas can also play a major role in promoting cooperation and confidence building between countries and within regions.”<sup>5</sup>

“Peace Parks” are defined as:<sup>6</sup>

“...transboundary protected areas managed through legal or other effective means, which are dedicated both to the conservation of biological and cultural diversity and the promotion of peace and cooperation. Peace and cooperation encompass building trust, understanding and reconciliation between nations, the prevention of conflict, and the fostering of cooperation between and among countries, communities, agencies and other stakeholders.”

#### **(i) Between ASEAN and South Korea**

“Realising the benefits of Transboundary Protected Areas, the AWGNCB has included an initiative from South Korea on the “ASEAN-Korea Environmental Cooperation Project (AKECOP) – Restoration of Degraded Forest Ecosystems in Southeast Asia Tropical Regions”. The project has three components: research, education and training, and conferences and workshops. An international Conference on Restoration of Degraded Forest Ecosystems in Southeast Asia and the Fifth Steering Committee Meeting were held in Seoul, from 22–23 April 2002. The focus on restoration of degraded forest ecosystems will enhance regional cooperation activities in sustainable forest management. This will promote “Parks for Peace” and confidence building between countries and within regions.

The AKECOP project will foster exchanges and facilitate cooperative activities including scientific research and monitoring, and specialist training. It will advance the IUCN Parks for Peace Programme for which WCPA has taken a lead role in gathering and accessing experiences on the development and application of this concept. The TPAs in Southeast Asia could over time join the Global Partnership for Peace. The World Parks Congress, held in Durban, from 8–17 September 2003, will advance this concept further. This project is significant in that it is the first project between ASEAN and a non-ASEAN member state in the area of biodiversity conservation. It demonstrates a big step forward in ASEAN cooperation.

#### **(ii) Within ASEAN Member States**

##### **■ Peace Parks under ASEAN Heritage Parks**

ASEAN has recently included in its preliminary list of ASEAN Heritage Parks the following Peace Parks:

- Spratly Islands (Malaysia, Viet Nam, Brunei Darussalam and Philippines)
- North Annam Mountains (Viet Nam and Laos)
- Lanjak Entimau/Bentuang (Indonesia, Malaysia)
- Turtle Islands (Malaysia and the Philippines)

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<sup>5</sup> [wcpa.iucn.org/theme/parks/parks.html](http://wcpa.iucn.org/theme/parks/parks.html) – accessed 31 Oct 2002.

<sup>6</sup> *Ibid.*

– Tristane Park (Laos, Cambodia and Vietnam)

■ **Cluster and Trans-Border Natural World Heritage**

Some of the benefits accruing from clustering are to accommodate social, political and economic interests, by coordinating cooperation among different agencies and stakeholders and joint data collection.

ASEAN is cooperating with many organizations such as the World Heritage Centre, WCPA East Asia, and WWF to prepare and identify sites within the ASEAN region that are ready to be proposed as cluster and trans-border Natural World Heritage Sites. A “cluster” does not necessarily possess a similar ecosystem but is to connect separate conservation units often with different management systems – these may cross national boundaries. Some potential sites have been identified and they are both within a country as well as cutting across two or more countries. An example of both cluster and trans-border are Annamite Range Moist Forests (Viet Nam, Laos and Thailand).

■ **Marine Turtles Conservation: Trans-Border**

Within the ASEAN region, there is an on-going project of management of transboundary parks and protected areas, both on a bilateral as well as on an intra-ASEAN level. An example of bilateral transboundary protected area is the Philippines-Sabah (Malaysia) Bilateral Agreement on the Turtle Islands Heritage Protected Area (TIHPA) dated 31 May 1996. The Turtle Islands Park of Sabah in Malaysia was gazetted as a national park on 1 October 1997, and is the first transfrontier protected area for marine turtles in the world. Among the activities is the establishment of a centralized database and information network.

At an intra-ASEAN level, the Memorandum of Understanding on ASEAN Sea Turtle Conservation and Protection, 1997, provides an example of multilateral efforts to ensure long-term survival of sea turtles in the region.

## **VI. Ecosystem approach/ecosystem management approach**

To what extent has ASEAN adopted an “ecosystem approach” or an “ecosystem management approach” to biodiversity conservation of parks, reserves, and protected areas? This may seem to be a strange question as the concept itself is still to be clarified. Although the word “ecosystem” is well known, the concept of “ecosystem approach” or “ecosystem management approach” is now referred to as “ESA”. In 2002, at the Sixth Meeting of the Conference of the Parties (COP) to the Convention on Biological Diversity, it was reported that the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) would be considering the ecosystem approach as a substantive issue at its ninth meeting in 2003.<sup>7</sup> The CBD Secretariat said that at its decision in V/16, COP had invited Parties, other governments and relevant bodies to identify case studies and organize pilot projects, workshops and consultations aimed at enhancing awareness and sharing experiences. However, some elements of an ESA approach are being recognised. Thus, at the United Nations Institute for Training and Research (UNITAR)/Kushiro workshop on Multilateral Conventions on Biodiversity, held in Kushiro in 1999, this concept was raised. This led to a study by some scholars – e.g. Peter Valentine’s “An Ecosystem Based Approach to Biodiversity Conservation: UNITAR Guidelines”.<sup>8</sup> Some elements of this approach have been proffered:

- Determine ecological boundaries (instead of the narrow species/habitat boundaries);

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<sup>7</sup> UNEP/CBD/COP/6/20 at 39–40.

<sup>8</sup> 2000, unpublished.

- Decentralization of management (allows for collaboration from the “bottom” level, role of civil societies, indigenous peoples, etc);
- Use multi-disciplinary approach in management (role of science);
- International cooperation;
- Change of mindsets: work beyond old boundaries – mental, physical, organizational and legal;
- Build capacity – this is the single most important factor – to empower the people and to change mindsets, be they of policy-makers, judges, and other stakeholders.

The ecosystem management approach will reinforce the “beyond parks” approach as it takes a broad view of sustainable development and utilization, rather than a sectoral approach. Over the last few years, after the establishment of ARCBC, the AWGNCB has been very active in the area of biodiversity and has been forward looking in its approach. This is clear from the range of items discussed at the recent AWGNCB meetings, the 12<sup>th</sup> of these held from 12–18 June 2002, in Yangon. The various meetings have considered some of the important issues that have come before the global community, such as the “ecosystem approach”, the importance of wetlands, and the alignment of ASEAN Heritage Parks to other international instruments like the World Heritage Convention. Studies such as “Sustainability Factors in Protected Area Management” in the “Results of Case Studies done in the Framework of the National Integrated Protected Areas Programme” were presented at the 12<sup>th</sup> meeting of the AWGNCB in June 2002.

In their joint statement to the WSSD, dated 4 June 2002, made in Bali, Indonesia, ASEAN recalled its Vision 2020 which calls for the sustainability of its natural resources and the high quality of life of its peoples. Some of the key points shared by member states, and which will further the cause of the “beyond parks” approach are the recognition of the role of civil societies (para. 9), measures to protect the poor (para. 12), and speedy implementation of the CBD (para. 6). The Working Group at its 12<sup>th</sup> meeting in June 2002 had taken cognisance of the work of the CBD COPs including the issue on “ecosystem approach” that is being undertaken by SBSTTA.

One of the most important areas is that of an effective governance on the part of ASEAN if it is to be put on the loop of what is being done both at the global and national levels on management of parks, reserves and protected areas. In this connection, the Joint Statement of Environment Ministers of ASEAN to the World Summit on Sustainable Development called for the strengthening of the sustainable development governance:<sup>9</sup>

“The existing frameworks for regional inter-governmental governance should be fully utilised as part of the international governance structure. Greater use should be made use of regional, inter-governmental and other organizations to promote coordinated sustainable development initiatives for the region.”

There has been renewed interest in the 1985 ASEAN Agreement for the Conservation of Nature and Natural Resources, after a lull of some 17 years, during which period only three of the six signatory countries have ratified it, namely, Indonesia, the Philippines and Thailand. Brunei, Malaysia and Singapore have yet to ratify before it enters into force. It is currently on the agenda of the Working Group. From the viewpoint of the “beyond parks” approach, this Agreement contains forward-looking elements dealing with ecological processes and also with processes for integrating the needs of people in terms of the overall objective of tying in development planning with ecological factors, and economic and social ones. An example of benefits beyond parks is contained in Article 13 (protected areas) paragraph (3) (iii) which

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<sup>9</sup> 4 June 2002, Bali, Indonesia, in Report of the 12<sup>th</sup> Meeting of the ASEAN Working Group on Nature Conservation and Biodiversity (AWGNCB), 17–18 June 2002, Yangon, Annex, at para. 21

states that "national parks shall be dedicated to conservation and to...the common welfare of the people". The processes to bring to fruition these benefits include participation in EIAs, international cooperation in research activities, information and capacity building.

Similarly, the draft text of the ASEAN Framework Agreement on Access to Biological and Genetic Resources contains elements of an ecosystem approach, taking into consideration prior informed consent of the Member State and its indigenous peoples and local communities embodying traditional lifestyles that would be secured before access can take place.

There are also many soft law instruments in the form of resolutions, "Common Stand", etc which have formulated policies including that on biodiversity. Some of the policy statements and rationale of the earlier action plans did not quite reflect the people aspect of conservation. They emphasised more the protection and conservation of nature as much had been destroyed by human activities. Thus, for example in outlining the Programme on Nature Conservation in 1978 (one of the programmes under ASEPS), it was pointed out that "In ASEAN countries, where population pressure has led to the transformation of virgin forests into cash crop plantations, the setting up of restricted areas for nature and wildlife conservation may be the most effective way to protect nature. This approach will also ensure the survival of ecologically undisturbed areas for scientific studies".<sup>10</sup> This sounds like the traditional approach. This approach is not confined to the ASEAN region but throughout the world. However, an enlightened approach has been developing, such as the UNESCO MAB and also the work of IUCN WCPA, which examines "benefits beyond parks" and where the interaction between man and the biosphere is seen as crucial to the success of parks.

## **VII. Collaboration: From policy formulation, agreements, plans of action, etc to implementation**

There is no ASEAN central body to make laws or issue directions as there is in the EU. The essence of the "ASEAN way" of collaboration has been non-interventionist to the extreme, preferring each member state to implement and monitor decisions taken at the ASEAN level, be they policies, plans of action, strategies, agreements and soft laws. Much of the implementation of these various environmental instruments has to be at the national level. However, at the regional level, a number of initiatives have to be taken at this level but the implementation envisaged cannot be backed by sanctions as there are no mechanisms at the regional level for enforcement. Under the ASEAN Agreement on Transboundary Pollution, 2002, the ASEAN Co-ordinating Centre for Transboundary Haze Pollution Control is established to facilitate cooperation and coordination among the Parties in managing the impact of land and/or forest fires, in particular haze pollution arising from such fires. National monitoring centres (National Focal Points) are to be set up to coordinate with the Centre. The monitoring and implementation of the obligations are left to each member state.

## **VIII. Conclusion**

The "beyond parks" approach is now the foremost thinking in biodiversity conservation and ASEAN is showing signs of meeting this challenge. There is a need to examine some of the first generation biodiversity instruments, policies, programmes, strategies and plans of actions to align them with this concept. The key to understanding lies in capacity building and both the AWGNCB and ARCBC recognise this. At the recent 12<sup>th</sup> meeting of

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<sup>10</sup> Koh Kheng-Lian, *Selected ASEAN Documents on the Environment*, p. 101, Asia-Pacific Centre for Environmental Law, 1996.

AWGNCB (2002), experts were invited to give a presentation on “Asian Wetlands Inventory” – as the benefits of wetlands have now emerged. ARCBC will also be organizing training programmes in applied biodiversity conservation. These are only two of the many capacity building activities that will help the ASEAN region meet the future challenges of the “beyond Parks” approach.

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# The effective management of wetlands in Japan

Hiroji Isozaki\*

*Wetlands are important for maintaining biodiversity and securing livelihoods for local communities. Threats to wetlands are also threats to local communities. Since local communities play a key role in the management of local resources, wetland management should be based on each local community, and the need to ensure social development through wetland management, taking into account the well-being of the human community. In the planning process, it is necessary to incorporate local people and communities into environmental impact assessment procedures. Regarding the participation of local people in the wetlands management process, the Ramsar Convention has been playing a leading role, adopting Guidelines on the participatory management of wetlands.*

*The wise use of wetlands is a key concept of the Ramsar Convention, and for that purpose, it requires Contracting Parties to manage the Site effectively. Thus, laws on wetland resource management should, beyond establishing parks, attach importance to the effective management of established wetland parks in order to ensure the sustainable use of wetland resources and the well-being of local communities dependent on wetlands.*

*The research on laws for sustainable wetland management and the promotion of the well-being of the local people are insufficient. For environmental laws in the next generation, further collaborative research should be carried out to identify and propose necessary and basic legal principles and guidelines on the sustainable use of biological resources, as well as desirable measures for its enforcement, compliance and transparency, and for the participation of local people.*

Beyond establishing parks, laws on wetlands need to ensure the effective management of established wetland parks and to ensure that natural resources therein are used in a sustainable way. In fact, all the environmental treaties, including the Ramsar Convention on Wetlands have attached great importance to such management and use.

At the eighth meeting of the Conference of the Contracting Parties to the Ramsar Convention, held in Valencia, Spain, 18–26 November 2002 (Ramsar COP8), matters of wide variety were taken up and discussed. One of the key concerns was effective and sustainable management of wetlands and the resources therein. In particular, one of the items on the agenda for Technical Session 4 (Managing Wetlands for Sustainable Use and Human Well-Being), was “Management Planning for Effective Conservation and Wise Use”. Several new Ramsar Guidelines were also discussed. At Technical Session 5, another aspect of human well-being was considered under the theme of “Cultural aspects of wetlands as a tool for their conservation and sustainable use”.

In this paper, the first part covers necessary measures for effective management of wetlands including participatory management processes and recent movements in Japan in relation to wetland management and public participation. The second part refers to the wise use of wetlands, focusing on a new perspective of Access and Benefit-Sharing relating to genetic resources in wetlands.

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## **I. Effective management of wetlands**

For the effective management of wetlands, a participatory approach is required in order to involve local stakeholders.

### **1 Effective management**

While the biological and ecological value of wetlands are well recognised, the social and cultural value of wetlands and their functions and resources should also be fully recognised, especially from the perspective of human well-being. The improvement of the local community's well-being is a rather new perspective in the Ramsar Convention.

#### **(a) Involvement and participation**

Wetlands are important for maintaining biodiversity and securing livelihoods for local communities. Threats to wetlands are also threats to local communities. Since local communities play a key role in the management of local resources, wetland management should be based on each local community, and the need to ensure social development through wetland management, taking into account the well-being of the human community.

Local communities should be aware of the importance of wetland resources and wetland functions. Towards that end, every effort should be made to promote awareness of the local people regarding their surrounding environment, through campaigns, symposia, education, training courses, village meetings and the media. Providing easily understandable materials and suitable coordinators are also important. Sometimes, local people are well aware of the values and benefits of biodiversity and wetlands and of the importance of their conservation. But rapid social changes have made it difficult for local communities to continue their traditional life based on the values of wetlands. In these circumstances, local governments and other organizations should be sensitive to these changes and should help their communities to adapt to socio-economic change and build prosperous communities around wetlands.

It is most important that the participation of local people be active, free and meaningful. Such participation should be assured by law in both the planning and implementation processes of conservation or development projects. In the planning process, it is necessary to incorporate local people and communities into environmental impact assessment procedures. The assessment procedures should examine not only natural and physical impacts but also socio-economic and socio-cultural impacts.

#### **(b) Management**

The number of designated wetlands of international importance under the Ramsar Convention should be further increased. In particular, such sites should be designated not only from the viewpoint of water birds but also from the perspective of general wetland ecosystems and social and cultural values.

In addition, beyond compliance, a positive management system which requires the Contracting Parties to take measures that are desirable but not provided in the Convention, should be pursued. To that end, a cooperative management method is considered to be one of the most useful methods, and should be undertaken. In relation to such cooperative management, in Germany, the "Kooperationprinzip" was recently confirmed by the Federal Constitutional Court to be one of the basic legal principles of environmental law, together with the Precautionary Principle and the Polluter Pays Principle.

Regarding the participation of local people in the wetlands management process, the Ramsar Convention has been playing a leading role. In particular, it has adopted the

Guidelines for Establishing and Strengthening Local Communities' and Indigenous People's Participation in the Management of Wetlands, which set out detailed items and indicators for desirable actions and systems for participation.

## **2. Recent movements in Japan**

A review process on public works was introduced at central and local levels, and several projects have been cancelled: among them, wetland-related works include the reclamation plan of the Fujimae Tidal Flat; the construction plan of the Chitose River Channel (which may have affected the Utonai Lake, a Ramsar site); the reclamation and desalination plan in the Naka-Umi; as well as the reclamation plan of the Sambanze Tidal Flat. Examples of the Fujimae and the Sambanze tidal flats are discussed below.

### **(a) *The Fujimae Tidal Flat Area Reclamation Project***

In 1984 the Nagoya City Government developed a plan to construct a final garbage dumping site in the Fujimae Tidal Flat in the Ise Bay, which is one of the tidal flats gathering the biggest number of waterfowl in Japan. Almost all other tidal flats of the Nagoya area located in the north end of the Bay have been reclaimed. Although it was not designated as a Ramsar site, the Fujimae Tidal Flat was recognized to be internationally important for migratory water birds, especially waders, based on the criteria for the Ramsar site designation.

Many objections to the landfill project were sent to the City Office. The Nagoya City Government changed the plan and the project area was reduced from 105ha to 46.5ha. Based on the changed plan, the Nagoya City Government conducted an EIA and released the *Draft Report on the Environmental Impact Assessment of the Reclamation of the Fujimae Tidal Flat and of the Construction of Final Disposal Site of Garbage* in July 1996. The Draft EIA Report concluded that there would be little negative influence on the site. It was open to public inspection from 24 July 1996 for two weeks and submission of opinions was called for by 9 September. Sixty opinions including 19 from abroad were submitted.

Almost all of them criticised the assessment procedures and the results of the assessment and required a re-assessment and suspension of the plan. Among the opinions submitted, the Ramsar Bureau sent a letter of concern. It stated that the 5th Meeting of the Conference of the Contracting Parties to the Ramsar Convention had adopted Recommendation 5.1 which called on Contracting Parties along the East Asia fly-way to designate additional wetlands for the Ramsar List and, in particular, to designate inter-tidal wetlands in view of their vital role in sustaining migratory waterfowl, as well as their value for biodiversity and support of fisheries. It continued that Recommendation 5.1 was instrumental in the development and approval of Recommendation 6.4 of the Brisbane Initiative on the establishment of a network of listed sites along the East Asian-Australian fly-way. And it concluded that the plan might cause adverse impacts on one of the very important habitats of waders along the East-Asian fly-way and due consideration should be given.

In fact, it might be against Article 4 of the Ramsar Convention which required the protection of wetlands which were not designated as Ramsar sites, as well as Recommendations 5.1, 6.2, 6.4, 6.8, and Operational Objective 2.5. Although these recommendations do not have legal force, the recommendations and their annexed guidelines should be faithfully observed.

Considering these submissions, a supplementary assessment was conducted. Based on the assessment, the EIA Committee of Nagoya City found in March 1998 that the reclamation would clearly affect the area and migratory birds. However, Nagoya City published an EIA report which stated that the impact on migratory birds and tidal flats was difficult to decide and that the reclamation works could be started, with a condition to carry out an experimental

construction of an artificial tidal flat. This decision met with strong criticism. In fact, the assessment procedures were not in line with the guidelines for EIA under the Ramsar Convention. In December 1998, the Environment Agency of Government of Japan indicated that the construction of an artificial tidal flat would not be acceptable. The Ministry of Transportation also stated that it would not permit the reclamation as proposed. Following these opinions the Nagoya City formally decided in January 1999 to withdraw the reclamation of the Fujimae Tidal Flat, and in late 2002 the Flat was registered in the Ramsar List.

**(b) *The Sambanze Tidal Flat***

The Sambanze Tidal Flat, located in Chiba Prefecture in the northern part of the Tokyo Bay, which is not a Ramsar site, is one of the tidal flats that gathers the greatest numbers of waterfowl in Japan. The Chiba Prefectural Government decided to reclaim an area of 740ha for housing, industrial and waste disposal purposes. Environmental NGOs and academic researchers raised criticisms. In early 1999, the EIA Report was published which stated that the coastal ecosystem would be severely damaged and fish and birds would be affected. After due consideration of the criticisms and the economic conditions, the plan was amended by the Prefectural Government, reducing the project area to about 100ha. The Ministry of Environment and the Minister expressed a view that the plan would still not be accepted.

The plan was suspended in late 2001, with the election of a new Governor marking a turning point. After the suspension, an alternative plan was examined by the Review Committee in order to work out a viable management plan for the area, based on a participatory and transparent manner.

### **3. *Public Involvement and participation***

First, involvement and participation of the public is also required in Environmental Impact Assessment (EIA) or Risk Assessment (RA) processes, and, as a more systematic method, PIC (Prior Informed Consent) is considered to be useful. Second, in general, transparency is required in processes for fact finding, prioritization, assessment, decision-making, operation, and monitoring. Accountability is also necessary for decision-makers and managers. Participation is one of the desirable methods to support transparency.

In response to such international movements, relevant laws and regulations in Japan have been amended and improved. One of these examples is the EIA laws. The Law on Environmental Impact Assessment which took effect in June 1999, expanded and improved the opportunity and extent of participation. However, existing plans and activities are exempted from its full application.

Considering desirable participatory methods, public involvement has functioned well in the cases of the Fujimae Tidal Flat, the Naka-Umi (Shimane and Tottori Prefectures) and possibly the Sambanze. Most of all, the Fujimae Tidal Flat was formally designated as a Ramsar site by the Government of Japan with a proposal from Nagoya City. Thus, a threatened wetland was designated as a new Ramsar Site and this is one of the success stories on wetland conservation in Japan. However, it was not a definitive consequence based on legal provisions.

In contrast, in a similar case on Isahaya Bay (Nagasaki Prefecture), the reclamation plan has gone ahead. Aquaculture activities in the Ariake Bay in Kyushu, within which the Isahaya Tidal Flat is located, have suffered severe ecological damage in 2000 and 2001. The reclamation works at the Isahaya Tidal Flat have been criticised as the main cause of the damage. Based on the opinion of the Advisory Committee, the Ministry of Agriculture announced in March 2001 that it would review the reclamation plan schedule and carry out

comparative research on the purification function of tidal flats. The size of the reclamation area has been reduced and the reclamation plan has pushed forward.

In recent years, in addition to the EIA Law, a number of Japanese laws on nature protection have been amended and concepts such as biodiversity and sustainability, and the participatory process have been incorporated. For example, the River Law was amended in 1997, the Basic Law on Food, Agriculture and Farm Villages replaced the old law in 1999, the Sustainable Agriculture Promotion Law was newly enacted in 1999; the Basic Law on Fishery was newly enacted 2001, and the Basic Law on Forest and Forestry replaced the old law in 2001.

From the viewpoint of the theme of Beyond Establishing Parks/Protected Areas, further improvements in the domestic laws of Japan are still necessary in order to incorporate participatory measures and to guarantee those rights of participation.

## **II. The wise use of wetlands**

The wise use of wetlands is a key concept of the Ramsar Convention for the management of wetlands.

### **1. Wise use**

As defined at the third meeting of the Conference of the Contracting Parties at Regina in 1987, “the wise use of wetlands is their sustainable utilization for the benefit of mankind in a way compatible with the maintenance of the natural properties of the ecosystem”. “Sustainable utilization” of a wetland is defined as “human use of a wetland so that it may yield the greatest continuous benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations”. “Natural properties of the ecosystem” are defined as “those physical, biological or chemical components, such as soil, water, plants, animals and nutrients, and the interactions between them.”

The fourth meeting of the COP at Montreux, Switzerland, in 1990, approved recommendation REC C.4.10, which calls on Contracting Parties to adopt and apply the “Guidelines for implementation of the wise use concept of the Convention” contained in its Annex. These “wise use guidelines” call for the establishment of national wetland policies covering all problems and activities related to wetlands, including institutional and organizational arrangements, legislative and government policies, increasing knowledge and awareness of wetlands and a review of wetland priorities in a national context.

The fifth meeting of the conference, in Kushiro, Japan, in June 1993, approved resolution RES C.5.6, which calls on Contracting Parties to “implement in a more systematic and effective manner, and at international, national and local levels, the guidelines on wise use”. Resolution RES C.5.6 notes the “Additional Guidance for the implementation of the wise use concept”, contained in Annex 1 to the resolution, urging Contracting Parties to implement its provisions.

The question whether a certain activity conflicts with these conservation obligations depends primarily on an assessment of the impacts of the activity. The obligation under Article 3 to prevent ecological changes will presumably lead to the prohibition of activities where there is a risk of negative impacts. EIS (Environmental Impact Statements/Studies) or EIA is a desirable procedure for that purpose. Recently, it was recommended that full consideration be taken of the ecological and social perspectives.

## **2. Wetland resources**

The wise use of resources and functions of wetlands is one of the main objectives of the Ramsar Convention. Wetland resources include both living and non-living resources. In this paper, only living resources are touched upon.

As some wetlands have been lost and others have been severely degraded, society has grown to appreciate the many diverse goods and services, ranging from flood control to fish nurseries, provided free by wetlands. Wetlands, in fact, are the most productive places for a variety of activities including agriculture, fisheries or tourism. The recommendation adopted by the Fourth Meeting of the Conference of the Parties (COP4) to the Ramsar Convention, REC 4.10, contains a list of functions of wetlands, viz.:

- sediment and erosion control;
- flood control, maintenance of water quality and abatement of pollution;
- maintenance of surface and underground water supply;
- support for fisheries, grazing and agriculture;
- outdoor recreation and education for human society;
- provision of habitat for wildlife, especially waterfowl; and
- contribution to climatic stability.

It is recommended that the most cost-effective way of controlling flooding is to protect the remaining riverine wetlands which absorb floodwaters naturally.

Thus, wetlands abound with biological diversity and are treasure houses of various life-forms. They have supported almost all lives on the earth including human beings. Human communities and our civilization have developed beside major wetlands.

## **3. Access and benefit-sharing**

Living resources of wetlands include plants and animals, and micro-organisms. Such biological resources including genetic resources are also covered by the Convention on Biological Diversity (CBD).

For ensuring the wise use of living resources, it is necessary to respect relevant rights including traditional or communal rights over wetland resources. Every taking and acquisition should be in a legal, honest and faithful way.

### **(a) Main objectives of CBD**

Article 1 of the Convention on Biological Diversity (CBD), states that "the fair and equitable sharing of the benefits arising out of the utilization of genetic resources" is one of the three main objectives of the Convention. Article 15 sets out the principles that should underpin the implementation of this objective. The access and benefit-sharing (ABS) provisions of the Convention have been considered at various meetings of the Conference of the Parties, and the Guidelines for ABS were recently adopted.

### **(b) Bonn Guidelines**

The Sixth Meeting of the Conference of the Parties (COP6) to the CBD, in the Hague, in April 2002, adopted the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization (Decision VI/24 A). These Guidelines are expected to assist Parties, governments and other stakeholders in developing an overall access and benefit-sharing strategy, and in identifying the steps involved in the

process of obtaining access to genetic resources and benefit-sharing. Parties, non-Party governments and other stakeholders are invited to use the Guidelines when establishing legislative, administrative or policy measures on access and benefit-sharing and/or when negotiating contractual arrangements for access and benefit-sharing. It is recognised by Parties as a useful first step, but also considered to be in need of further refinement.

In access to resources, relevant rights and traditional practices should be duly respected. To that end, not only the ownership, but also such other rights as stewardship, guardianship, communal rights or traditional knowledge should be recognised. Thus, the Bonn Guidelines also refer to the role of intellectual property rights (IPRs) in Access and Benefit-Sharing (ABS) agreements. Section C, paragraphs 1 and 2, invites Parties and governments to encourage the disclosure of the country of origin of genetic resources and related traditional knowledge (TK) in applications for intellectual property rights, where the subject matter of the application concerns or makes use of genetic resources or related TK in its development. Since IPR and TK issues have been discussed and negotiated in such other international organizations as the World Intellectual Property Organization (WIPO), the World Trade Organization or WTO (TRIPS Agreement), the Food and Agriculture Organization (FAO) and the United Nations Conference on Trade and Development (UNCTAD), further work is needed in collaboration with relevant organizations.

The Bonn Guidelines are not a complete set of necessary actions. Outstanding issues include use of terms and definitions, compliance measures in user countries including prior informed consent (PIC), needs for capacity building to implement the Bonn Guidelines, as well as other approaches, which include model contractual agreements, existing regional agreements and model laws on ABS. And for implementation of the Guidelines, the following work is required: development of appropriate national regulatory framework, scientific and technical cooperation, information exchange, identification and dissemination of case studies and best practices, regional and subregional collaborative arrangements, coordination between multilateral and bilateral donors and other organizations, development of model agreements and codes of conduct, training workshops, and participation of all relevant stakeholders. In addition, the means for assurance of sharing of benefits and the way these resources should be distributed need further negotiation.

These issues will be discussed and negotiated in expert meetings and inter-sessional meetings scheduled before COP7.

**(c) *Access and benefit-sharing laws***

Laws and regulations on ABS issues are very complicated. They closely relate to policies and laws on IPRs, agriculture, trade, biodiversity, environment, economy, commerce, development and poverty alleviation. Even in the field of law, complicated and layered relations are seen ranging from the global level to the local level and from the public level to the private level. They include the CBD and other global treaties, regional agreements such as the Andean Agreement, bilateral agreements which set out mutually agreed terms (MATs), and national laws and regulations of both provider and user countries, local laws and ordinances, and also private contracts which serves as a material transfer agreement (MTA).

Laws at national and local levels are in the process of preparation and private contracts will also be negotiated. Enforcement of laws and contracts, and fair and reliable dispute settlement mechanisms are other difficult issues for consideration. Thus, it is necessary to design a project that aims to provide information as well as constitute a decision-making tool to assist national governments in evaluating their options in light of their international obligations and their national concerns. This should also assist the private parties (provider and user) in their negotiations for mutually agreed terms and conditions for access and benefit-sharing, and

dispute settlement mechanisms. Although the Institute of Advanced Studies of the United Nations University launched a programme on ABS and has extensively carried out research activities, wider research is further required and legal researchers including members of the IUCN Commission on Environmental Law (CEL) may well contribute to this issue.

**(d) *Laws on wetland resources***

Laws on wetland resource management should, beyond establishing parks, ensure sustainable use of wetland resources and the well-being of local communities dependent on wetlands. The Ramsar Convention recognises this approach and, beyond designation of the Ramsar Site, requires the Contracting Parties to manage the Site effectively in order to achieve the wise use of wetland resources. The Montreux Record is one of such deliberations, which requires the Parties to promote effective and efficient management of designated wetlands.

Laws on ABS also aim to ensure sustainable use of biological resources together with improvement in the lives of the local people through fair and equitable sharing of benefits arising from the use of genetic resources.

The research on ABS from the legal perspective has just begun. However, the research on laws for sustainable wetland management and the promotion of the well-being of local peoples is insufficient. For environmental laws in the next generation, further collaborative research should be carried out to identify and propose necessary and basic legal principles and guidelines on the sustainable use of biological resources and on access and benefit-sharing, as well as measures for enforcement and compliance, transparency and the participation of local people.

# The impact of intellectual property rights and trade-related issues on biological diversity

Michael I. Jeffery QC\*

*This paper focuses on the response of the international community to the need to conserve biodiversity of genetic resources and ensure that they are developed in a sustainable manner within an internationally sanctioned and enforceable legal framework. It gives an overview of the Convention on Biological Diversity (CBD) and examines in some detail the provisions in the CBD that are particularly relevant to the protection of intellectual property rights, namely, those dealing with access and benefit sharing and the transfer of technologies and the protection of traditional knowledge under Article 8j. The paper then explores the relationship between the WTO's Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) and the CBD and the latter's impact on biological diversity.*

## I. Introduction

In recent years the interest in genetic resources has increased exponentially in both developed and developing countries as a result of scientific and biotechnological advances driven in large part by the pharmaceutical and agricultural industries seeking to reap enormous profits from the 21<sup>st</sup> Century's "new frontier". As the uses for genetic resources expand so also does the need for *conservation and sustainable development* of these resources within an internationally sanctioned and enforceable legal framework.

The response of the international community in attempting to meet this particular global challenge, one of several that were increasingly central to the acrimonious North/South debate, was the conclusion of the successful negotiations leading up to the Convention on Biological Diversity (CBD).<sup>1</sup> Although the final text was somewhat less promising than what had been originally envisaged by parties on both sides of the divide, the CBD was opened for signature on the 5<sup>th</sup> of June 1992 at the United Nations Conference on Environment and Development and subsequently entered into force on 29 December 1993.<sup>2</sup> It had, as its principal objectives, the combined goals of conservation and sustainable development of biodiversity to be achieved with the *fair and equitable sharing of benefits* derived from the utilization of genetic resources. Of paramount importance was to be the trade-off between access to genetic resources and the transfer of relevant technology.

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<sup>1</sup> Global environmental concerns such as the protection of the ozone layer, biodiversity conservation and global warming have all figured prominently in the North/South debate and each of the international conventions that have sought to address these concerns have included important provisions to ease tensions between developed and developing countries.

<sup>2</sup> *Convention on Biological Diversity*, 5 June 1992 UNEP/Bioprospecting.Div./N7BINC5/4, 31 I.L.M. 818 (entered into force 29 December 1993) [hereinafter CBD].

The purpose of this brief paper is to examine the impact of intellectual property rights<sup>3</sup> (IPRs) and other trade-related issues on biological diversity. It will not purport to discuss in detail the constituent underlying elements of the CBD upon which the overall success or failure of this ambitious international legal framework will ultimately be judged – namely, the *access provisions* (Article 15), and the *benefit-sharing* provisions (Articles 8(j), 15(6), (7), 16 and 19(1), (2)).

Rather, the focus of this paper will be confined largely to a recognition of industry's important role as a stakeholder in the context of the CBD, and as such, the driving economic force underpinning the commercial development of genetic resources. In turn, it is the fair and equitable sharing of these (profits) benefits amongst the providers of these genetic resources, including the holders of traditional knowledge that will ultimately lead to the conservation and sustainable development of biodiversity. Viewed pragmatically, the ability of existing international IPR regimes to adequately protect industry's huge expenditures on research and development remains the key to industry participation, without which there will be neither profits to be generated nor fair and equitable benefits, including technology, to be transferred. Social justice and equity also requires new forms of legal protection for the owners of genetic resources and for traditional knowledge and practices.

## II. The CBD in context

The potential for runaway commercial exploitation of genetic resources through unregulated bioprospecting and biopiracy by industry together with the potential loss of biodiversity by developing countries through continued unsustainable depletion of their resources provided ample justification for the urgent necessity of formulating and implementing appropriate national and international legal regulatory regimes directed at reversing these trends.<sup>4</sup> To do so, however, will require an enormous collective effort on the part of developed and developing countries and involve the active participation of a variety of disparate stakeholders including industry, nation states, scientists, indigenous peoples and NGOs.

Since the wealth of the world's biodiversity is largely situated in the developing countries of the South, while the capacity and the biotechnology to exploit genetic resources for commercial purposes belongs primarily to institutions and corporate entities of the developed countries of the North, it was necessary to ensure that due consideration in the negotiations leading up to the signing of the CBD was given to the recognition of existing IPR regimes.<sup>5</sup> For many years industry has relied on IPR regimes to establish monopoly rights that enable industries to recoup their investment in research and development and

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<sup>3</sup> Glowka defines IPRs as private legal rights that apply to an intangible human contribution that goes into producing a particular technology. The holder has a legal monopoly over the commercial exploitation of the intellectual property over a specified period of time and therefore the technology that embodies it. See Lyle Glowka, *A Guide to Designing Legal Frameworks to Determine Access to Genetic Resources* (Gland, Cambridge and Bonn: IUCN, 1998) at 1.

<sup>4</sup> The biotechnology industry has been described as one of the fastest growing industries in the world. The number of biotechnology patent applications filed in the United States alone grew by 15% annually in the period between 1985 and 1990. See Walter Reid, "The Economic Realities of Biodiversity" *Issues in Sci. & Technology*, Winter, 1993–4.

<sup>5</sup> Prior to the negotiation of the CBD, the principle of free access to genetic resources regarded as the "common heritage of mankind" prevailed. Access was by and large unregulated and there was no requirement that the benefits derived from the use of these resources be shared with their country of origin. This principle was enshrined in the non-binding 1983 FAO Undertaking where commercially bred lines from the Developed countries received intellectual property protection in the form of Plant Breeders Rights or patent protection while genetic material and traditional breeder lines from Developing countries were obtained freely. See Shayana Kadidal, "Plants, Poverty and Pharmaceutical Patents", (1993) 103 *Yale L.J.* 223.

provide a fair return over a specified period of time. In this way innovation is encouraged and biotechnology itself, and the products developed from its use, have attracted such IPR protection. It is reasonable to conclude that without the recognition of these rights, participation of industry and hence many of the developed countries of the North, would not have been forthcoming in negotiations for an international treaty on biodiversity.

Issues relating to the ownership and control of genetic resources therefore became one of the most contentious of a range of issues that dominated the negotiations.<sup>6</sup> Developing countries resented the accumulation of wealth by companies in the North as a result of the use of genetic resources freely obtained from within their borders and over which they had no legal entitlement. At the same time the North under the guise of a *moral imperative* demanded a curtailment of development practices in the South that threatened the conservation and sustainable use of biological resources.

The subsequent rejection of the common heritage doctrine by the South together with the concomitant assertion of the right to benefit from their own resources, a right to be exercised by controlling access to both their genetic resources and information within their sovereign territory formed part of what was termed the “grand bargain” of the CBD – the agreement by Contracting Parties *to facilitate access to genetic resources in return for a fair and equitable share of the benefits derived from their use.*<sup>7</sup>

In return for allowing Northern industry to bioprospect within their borders, the countries of the South demanded more of the benefits from the products developed as a result, in addition to access to the technology (including biotechnology) that would enable them to add value to genetic resources domestically. In this regard they saw IPRs as a major obstacle to benefit-sharing and ultimately to biodiversity conservation. Moreover, they viewed as inequitable the lack of similar property protection afforded by developed countries’ IPR regimes with respect to the genetic resources found in the South or the traditional knowledge exploited with respect to their use. In contrast, the developed countries of the North sought to maintain free and open access to genetic resources and, fearful that technology transfer requirements could serve to undermine their industry, were adamant that their IPRs regimes be honoured and upheld.<sup>8</sup>

It is within this context that the impact of intellectual property rights and other trade-related issues on biodiversity must be discussed.

### **III. Recognition and protection of IPRs in the CBD**

In attempting to strike a balance and to address the concerns of the developed countries the CBD specifically makes reference to IPR regimes both directly, and indirectly in the context of *international law*.

**Article 16** requires Contracting Parties to establish a framework within which to provide and/or facilitate access to and transfer of technology. It sets out the minimum requirements for all Contracting Parties whether they are the providers of the technologies or the recipients of the transfer. The method of doing so is left to the Parties.

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<sup>6</sup> See John Mugabe *et al.*, (Eds.) *Biopolicy International Series No. 17* (Kenya: ACTS/Initiatives Publishers/WRI 1996); See also John Ntambirweki, “Biotechnology and International Law Within the North-South Context”, (2001) 14 *Transnat'l Law* 103.

<sup>7</sup> See Michael Gollin and Sarah Laird, “Global Policies, Local Actions: The Role of National Legislation in Sustainable Biodiversity Prospecting” (1996) 2 *B.U.J. Sci. & Tech. L.* at p. 16.

<sup>8</sup> David Hunter *et al.*, *International Environmental Law and Policy*, 2<sup>nd</sup> ed. (New York: Foundation Press, 2002) at 944–5.

**Article 16 (1)** Each Contracting Party, recognizing that technology includes biotechnology and that both access to and transfer of technology among Contracting Parties are essential elements for attainment of the objectives of this Convention, undertakes, subject to the provisions of this Article to provide and/or facilitate access for and transfer to other Contracting Parties of technologies that are relevant to the conservation and sustainable use of biological diversity or make use of genetic resources and do not cause significant damage to the environment.<sup>9</sup>

Article 16(2) goes on to provide that access to and transfer of technology shall be provided and/or facilitated under *fair and most favourable terms*, including on *concessional and preferential terms*, where mutually agreed. Although these terms are not specially defined within the CBD, they are consistent with the use of similar language in both the United Nations Framework Convention on Climate Change (UNFCCC), the Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol) and Agenda 21. Of importance is the recognition that *where technology is subject to patents and other intellectual property rights, such access and transfer must be on terms that are consistent with the adequate and effective protection of intellectual property rights*.

**Article 16(2).** Access to and transfer of technology referred to in paragraph 1 above to developing countries shall be provided and/or facilitated under fair and most favourable terms, including on concessional and preferential terms where mutually agreed, and, where necessary, in accordance with the financial mechanism established by Articles 20 and 21. In the case of technology subject to patents and other intellectual property rights, such access and transfer shall be provided on terms which recognize and are consistent with the adequate and effective protection of intellectual property rights. The application of this paragraph shall be consistent with paragraphs 3, 4 and 5 below.

The following three subparagraphs of Article 16, with which Article 16(2) must be consistent, raise a number of concerns.

**Article 16(3).** Each Contracting Party shall take legislative, administrative or policy measures as appropriate, with the aim that Contracting Parties, in particular those that are developing countries, which provide genetic resources are provided access to and transfer of technology which makes use of those resources, on mutually agreed terms, *including technology protected by patents and other intellectual property rights, where necessary* through the provisions of Articles 20 and 21 *and in accordance with international law* and consistent with paragraphs 4 and 5 below. (emphasis added)

**Article 16(4).** Each Contracting Party shall take legislative, administrative or policy measures, as appropriate, with the aim that the private sector facilitates access to, joint development and transfer of technology referred to in paragraph 1 above for the benefit of both governmental institutions and the private sector of developing countries and in this regard shall abide by the obligations included in paragraphs 1, 2 and 3 above.

**Article 16(5).** The Contracting Parties, *recognizing that patents and other intellectual property rights may have an influence on the implementation of this Convention, shall cooperate in this regard subject to national legislation*

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<sup>9</sup> It should be noted that by defining the term "technologies" in the context of the conservation and sustainable use of biodiversity, or the use of genetic resources, the CBD ensures that traditional and indigenous *applied* knowledge is included.

*and international law* in order to ensure that such rights are supportive of and do not run counter to its objectives. (emphasis added)

Although Article 16(3) deals with the transfer of technology which makes use of genetic resources, it does not create an obligation for each Contracting Party making use of the genetic resources to transfer the technology to the Contracting Party providing the resources. This Article merely provides for the establishment of appropriate legislative, administrative or policy measures that would facilitate both access and transfer of technology. Nor does it specify the manner by which this obligation is to be met and again leaves this to the parties themselves.

Article 16(3) does, however, make specific reference to technology protected by patents and other intellectual property rights. Equally significant is the fact that Article 16(3) specifies that the obligations under this Article are to be in accordance with international law, which would include international law applicable to IPRs, namely, the TRIPS Agreement; other multilateral treaties, many of which are administered by the World Intellectual Property Organization (WIPO); other regional treaties such as the European Community Directive on the Legal Protection of Biotechnological Inventions and a variety of bilateral agreements.

Article 16(4) extends the obligation of Contracting Parties under Article 16(3) to *encourage* their respective private sectors to provide access to and transfer of technology for the benefit of both government institutions and the private sector of developing countries. Once again, however, it is clear that there is no obligation forcing the private sector to actually jointly develop or transfer technologies to developing countries. If such an obligation had the force of a binding commitment as opposed to merely an *aspirational* objective, it is likely that many developed countries would have been discouraged from participating.

Article 16(5) found its way into the CBD in order to emphasise developed country concerns that the CBD had the potential to undermine IPR regimes worldwide. It requires Contracting Parties to cooperate in order to ensure that IPR regimes are supportive of and do not run counter to the CBD's objectives in the context of implementing the Convention, while at the same time, tempering the degree of this cooperation by recognising that what Contracting Parties are expected to do *will be subject to national legislation and international law*.

Just how Contracting Parties are meant to solve this dilemma remains the subject of considerable debate.<sup>10</sup>

It should also be noted that an attempt was made in Article 22 to place the CBD in the overall context of other existing international conventions. This Article purports to ensure that the CBD shall not derogate from the rights and obligations of any Contracting Party with respect to the rights and obligations of any existing international agreement, with the express proviso "except where the exercise of those rights and obligations would cause a serious damage or threat to biological diversity". This apparent override by the CBD over other international obligations where the *exercise of those rights would cause serious damage or threat to biological diversity* does **not** extend to rights and obligations of States under the Law of the Sea (UNCLOS).<sup>11</sup>

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<sup>10</sup> It should be noted that although the aforementioned articles contain the principal provisions relating to access to genetic resources and the transfer of technology there are provisions within the CBD designed to facilitate financial and institutional capacity building within developing countries from a research, scientific, technical education, and training perspective. These are found in Articles 12, 17 and 18.

<sup>11</sup> Article 22(2) does not contain such a qualifier. This may be because although UNCLOS did not come into force until 1994 negotiations had commenced as far back as 1973 concluding in 1982 when it was signed and a significant body of customary international law had developed with respect to the marine environment.

The reference in Article 22 to *existing international agreement(s)* to which the apparent override mentioned above might apply (other than the Law of the Sea), is important for included therein is a range of international trade-related arrangements that, for the most part, do **not** have the conservation of biological diversity as their focus. Prominent among these are the WTO agreements including *GATT*<sup>12</sup>, the *North America Free Trade Agreement* (NAFTA)<sup>13</sup>, the *Treaty of Rome* (EEC Treaty)<sup>14</sup> and its successors The 1987 *Single European Act* and the *Maastricht Treaty* of 1992.<sup>15</sup>

Included within the WTO agreements is the *Agreement on Trade-Related Aspects of Intellectual Property Rights* (TRIPS) that will be dealt with separately in the context of this paper.

The principal treaties that do have biological diversity as their focus are: *The Convention on Wetlands of International Importance Especially as Waterfowl Habitat* (Ramsar Convention)<sup>16</sup>; *The Convention Concerning the Protection of the World Cultural and Natural Heritage* (The World Heritage Convention)<sup>17</sup>; and *The Convention on International Trade in Endangered Species of Wild Fauna and Flora* (CITES).<sup>18</sup>

#### IV. The TRIPS Agreement

V.R. Panchamukhi, Director-General of the Research and Information System for the Non-Aligned and Other Developing Countries noted in commenting on the formalization of the TRIPS Agreement as an integral part of the World Trade Organization:

“The most important feature of the new regime of intellectual property rights is that the rights of the owners of the intellectual property are enhanced whilst their corresponding obligations are reduced. The strongest support for this regime of intellectual property rights came from the biotechnology industry, which considers inclusion of biotechnological inventions in the realm of intellectual property protection as *the single most important factor to enhance its commercial interests.*” (emphasis added)<sup>19</sup>

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<sup>12</sup> The WTO agreements were negotiated in the Uruguay Round of multilateral trade negotiations and were signed in Marrakesh in 1994. As well as the GATT, these include: the TRIPS Agreement; the Agreement on Technical Barriers to Trade (TBT Agreement); the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), the Agreement on Subsidies and Countervailing Measures (Subsidies Agreement); the Agreement on Agriculture (Agriculture Agreement); and the WTO Understanding on the Settlement of Disputes.

<sup>13</sup> *North American Free Trade Agreement* (NAFTA), 17 December 1992, 32 I.L.M. 605, (entered into force 1 January 1994). NAFTA through its *Environmental Side Agreement* was heralded as the first of the free trade agreements that recognised the priority of environmental concerns over those relating to trade in circumstances where the two were in conflict.

<sup>14</sup> 2 B.D.I.E.L. 45.

<sup>15</sup> Single European Act, 25 I.L.M. 503 (1987); Maastricht Treaty, O.J. C 191, 29/07 1992, p. 0063.

<sup>16</sup> 2 February 1971, 11 I.L.M. 963 (entered into force 21 December 1975).

<sup>17</sup> 16 November 1972, 11 I.L.M. 1358, (entered into force 17 December 1975).

<sup>18</sup> 3 March 1973, 12 I.L.M. 1085, (entered into force 1 July 1975).

<sup>19</sup> See foreword by V.R. Panchamukhi in Biswajit Dhar et al., *Regime of Intellectual Property Protection for Biodiversity: A Developing Country Perspective*, RIS and IUCN, New Delhi (2001) at p. vii.

The TRIPS Agreement<sup>20</sup> came into force on January 1<sup>st</sup> 1995 and is the most comprehensive multilateral agreement on intellectual property.<sup>21</sup> Through this instrument, the scope of intellectual property rights was expanded by its association with global trade. The Agreement sets forth the minimum level of intellectual property rights, which must be provided by all State parties to the GATT and subsumed by all member States of the WTO. Members may implement more extensive protection provided that such protection does not contravene the provisions of the TRIPS Agreement. It would therefore be possible, for example, for a Member to enact legislation for the purpose of protecting traditional knowledge notwithstanding that traditional knowledge is not specifically mentioned.

The TRIPS Agreement has several main goals and objectives. These include reducing distortions and impediments to international trade; promoting effective and adequate protection of intellectual property rights; and ensuring that the measures and procedures used to enforce intellectual property rights do not themselves become barriers to legitimate trade.<sup>22</sup> These goals and objectives further include the promotion of technological innovation, the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge "...in a manner conducive to social and economic welfare, and to a balance of rights and obligations".<sup>23</sup>

The areas of intellectual property covered by the TRIPS Agreement are copyrights, patents, including plant variety protection, industrial designs, geographical indications, layout designs of integrated circuits, and undisclosed information, including trade secrets and test data. The Agreement affords Members a one-year grace period in order to phase in their obligations.<sup>24</sup> Generally, developing countries are permitted a further four years<sup>25</sup> and least-developed countries, a further 10 years<sup>26</sup> to implement most of the requirements under the Agreement. During such time, however, these countries nevertheless must take on significant interim obligations to protect intellectual property.<sup>27</sup> Articles 3, 4 and 5 include the fundamental rules on national and most-favoured-nation treatment of foreign nationals with respect to intellectual property. The national treatment provision forbids discrimination between a Member's own nationals (its citizens and corporations) and the nationals of other Members, while the most-favoured-nation treatment provision forbids discrimination between the nationals of other Members. Members are required to make available fair and equitable judicial procedures and remedies for the enforcement of IPRs.<sup>28</sup>

The category of intellectual property rights most likely to affect the achievement of the objectives of the CBD is patents.<sup>29</sup> Under Article 27, the TRIPS Agreement provides broad protection by obligating members to make patents available for both products and processes, in all fields of technology provided that they are new, involve an inventive step and are

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<sup>20</sup> *Agreement on Trade-Related Aspects of Intellectual Property Rights*, 15 April 1994, *Marrakesh Agreement Establishing the World Trade Organization*, Annex 1C, Gatt Doc. MTN/FAII- A1C, 33 I.L.M. 1197.

<sup>21</sup> It incorporates provisions of the *Paris Convention for the Protection of Intellectual Property*, 20 March 1883, U.N.T.S. No. 11851, the *Berne Convention for the Protection of Literary & Artistic Works*, 9 September, U.N.T.S. No. 11850 and other international intellectual property treaties.

<sup>22</sup> *Supra*, note 20. Preamble.

<sup>23</sup> *Ibid.* Article 7.

<sup>24</sup> *Ibid.* Article 65(1).

<sup>25</sup> *Ibid.* Article 65(2).

<sup>26</sup> *Ibid.* Article 66(1).

<sup>27</sup> David Downes, *Integrating Implementation of the Convention on Biological Diversity and the Rules of the World Trade Organization*. (IUCN, Gland, Switzerland and Cambridge, UK, 1999). For example, the United States successfully challenged India's inadequate implementation of TRIPS.

<sup>28</sup> The TRIPS Agreement, *supra* note 17, Section 2 (Articles 42–49).

<sup>29</sup> These patents include plant variety protection. David Downes, *supra* note 27, notes that geographic indications and trade secrets may also be relevant.

capable of industrial application.<sup>30</sup> This aims to stop individual countries from excluding certain material from patentability, including pharmaceuticals.<sup>31</sup> The TRIPS Agreement allows Members to exclude from patentability, if they choose, diagnostic and therapeutic methods for the treatment of animals and humans; and plants, animals and biological processes for the production of plants and animals. Patents for micro-organisms and microbial processes however, must be provided for.<sup>32</sup> In addition, Article 27(2) enables Members to exclude products or processes from patentability within their territory of commercial exploitation, if such exclusion is necessary to protect public order or morality, including to protect human, animal or plant life or health or to avoid serious prejudice to the environment.<sup>33</sup> These exclusions, however, are subject to the national treatment principle provision that forbids governments from treating foreign goods differently than domestic goods.<sup>34</sup>

As a result of the provisions in Article 27, a number of developing countries are finding it necessary to revise their patent laws to remove exceptions from patenting for certain categories of technology such as pharmaceuticals.<sup>35</sup> Further, it has been noted that while there is discretion as to whether to patent plants or animals, countries may well come under increasing trade pressure to allow patents in these areas.<sup>36</sup>

Some developing countries have argued for an amendment to the TRIPS Agreement to ensure that there is fair and equitable benefit-sharing arising out of the use of genetic resources and that protection is offered to traditional knowledge. Such issues were addressed in the CBD but have been overlooked in the TRIPS Agreement, resulting in potential conflicts. Brazil, for example, has suggested Article 27(3) should be amended in order to include the "possibility of members requiring, whenever appropriate, as a condition of patentability; the identification of the source of the genetic resources; the related traditional knowledge used to obtain that material; evidence of fair and equitable benefit-sharing; and evidence of prior informed consent from the Government or the traditional community for the exploitation of the subject matter of the patent".<sup>37</sup>

Such amendment would potentially shift to developed countries the burden of ensuring that prior informed consent has been obtained consistent with a developing country's access legislation. A possible amendment to this affect however, has met with the criticism that it would amount to a "legal and administrative nightmare" for developed countries.<sup>38</sup> In addition some developed countries have called for a possible revision of Article 27(3) to expand the exception from patenting to include micro-organisms as well as plants and animals while conversely, some developed countries have argued for the exception for the plant and animal patenting to be removed.<sup>39</sup> The outcome of a review of Article 27(3) will

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<sup>30</sup> The TRIPS Agreement, *supra* note 20, Article 27 (1).

<sup>31</sup> See Maria Kruger, "Harmonising TRIPS and the CBD: A Proposal from India", (2001) 10 *Minn J. Global Trade* 169.

<sup>32</sup> The TRIPS Agreement, *supra* note 20, Article 27(1) and 27(3)(a) and (b). This Article also requires countries to protect plant varieties either through patents or an "effective *sui generis* system" or both.

<sup>33</sup> Such exclusion, however, may not be made merely because their law prohibits such exploitation.

<sup>34</sup> Maria Kruger *supra* note 31.

<sup>35</sup> David Downes *supra* note 27.

<sup>36</sup> Klaus Bosselmann, "Focus: Plants and Politics: The International Legal Regime Concerning Biotechnology and Biodiversity" (1996) 7 *Colo. J. Int'l Env't L & Policy* at 126-128. Countries within Europe are finding that local biotechnological industries are considering relocating to United States because of its more liberal view on biological patents. Bosselmann suggests that the law in the European Union relating to patents over living organisms may well change to "catch up" with the United States.

<sup>37</sup> David Hunter *et al.*, *supra* note 8 at 967.

<sup>38</sup> *Ibid.* Such criticism has been made by the United States.

<sup>39</sup> David Downes *supra* note 27 at 101.

certainly impact upon the national legal regimes regulating the access to genetic resources and the fair and equitable sharing of benefits derived from their use.<sup>40</sup>

## V. IPRs and local and indigenous communities

Although the CBD has highlighted the importance and desirability of sharing equitably benefits arising from the use of traditional knowledge, innovations and practices relevant to the conservation of biological diversity and the sustainable use of its components both in the preamble and more specifically in Article 8(j), protection of such knowledge and practices remains, for all intents and purposes, outside IPR regimes and in particular the TRIPS Agreement.

**Article 8(j).** Each Contracting Party shall, as far as possible and as appropriate, subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices;

As Dutfield notes with regard to Article 8(j):

“this Article seems to affirm that the holders (“subject to national legislation”) have rights over their knowledge, innovations and practices, whether or not they are capable of being protected by IPRs. If they are not capable of being protected by the existing IPR system, there is still an obligation for governments to safeguard these entitlements through a new IPR law or by other legal or policy measures.”<sup>41</sup>

The very nature of traditional knowledge, in a pragmatic sense, places most of it outside of the purview of IPR law and, in particular, patent protection. Moreover, patent systems vary from place to place, in some cases granting patent protection on a first-to-file basis (members of the European Patent Convention) and others on a first-to-invent system prevalent in the United States. Under the former, a patent may be granted to a new invention, that is, if it does not form part of the state of the art before the filing of the European patent application, while in the USA a patent will not be granted where the invention was known or used by others in the USA or patented or described in a printed publication in the USA or a foreign country, before the invention thereof by the applicant for patent or was patented or in public use or on sale (in the USA) for more than one year prior to the date of application for patent in the United States.<sup>42</sup>

Unless traditional knowledge can be traced to a specific community or geographical area and has not been recorded or publicly disseminated it will likely be outside the realm of patent protection. As Posey astutely observed, even if traditional communities were able to secure

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<sup>40</sup> Graham Dutfield, *Intellectual Property Rights, Trade and Biodiversity* (UK: Earthscan Publications/IUCN, 2000) at 41, notes that while there are serious difficulties in reconciling the objectives of the CBD with the TRIPS Agreement, the implementation of the CBD cannot wait for a patent-free world. “It is far better to work with existing IPR regimes or propose realistic reforms while remaining cognisant of the pitfalls and limitations of IPRs as a means to further CBD implementation.”

<sup>41</sup> *Ibid* at p. 35.

<sup>42</sup> 35 United States Code s. 102.

IPR patent protection for their traditional knowledge and practices, their ability to uphold these rights in the face of challenges by powerful corporations would be extremely limited.<sup>43</sup>

The TRIPS Agreement makes no provision for the sharing of benefits with local and indigenous communities and to do so would require IPR laws to have stringent norms of disclosure on country and community from which patentable subject matter and information regarding its use were obtained as well as proof of consent of the provider country.<sup>44</sup> Interestingly, the Committee on Trade and Environment (CTE) of the WTO has stated that the fact that the TRIPS Agreement does not address benefit-sharing with local and indigenous communities would not preclude bilateral arrangements between States and companies to ensure such sharing, provided that these arrangements are compatible with it.<sup>45</sup>

A significant achievement of the CBD COP VI held in Bonn this year was the adoption of guidelines on access to genetic resources and fair and equitable sharing of the benefits arising out of their utilization. Decision VI/24 known as the Bonn Guidelines will be useful in providing Parties, governments and other stakeholders in developing appropriate strategies, particularly when designing and implementing legislative, administrative or policy measures on access and benefit-sharing and/or when negotiating contractual arrangements for such activities.

The guidelines provide, *inter alia*, "Draft Elements for an Action Plan for Capacity-Building for Access to Genetic Resources and Benefit-Sharing"<sup>46</sup> which contain several provisions with respect to the role of IPRs in the implementation of access and benefit sharing arrangements. Time and space constraints will not permit a detailed discussion of these provisions. However, it is a meaningful attempt to highlight the *concerns over the role of customary laws and practices in relation to the protection of genetic resources and traditional knowledge, innovations and practices, and their relationship with intellectual property rights*. Under this draft Action Plan, The Conference of the Parties invites Parties and governments to encourage the disclosure of the origin of relevant traditional knowledge innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biological diversity *in applications for intellectual property rights, where the subject matter of the application concerns or makes use of such knowledge in its development* (emphasis added) and requests the Executive Secretary with the help of other international organizations such as the World Intellectual Property Organization (WIPO), and through the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j), to undertake further information gathering and analysis with regard to a number of issues impacting on the implementation of specific articles within the CBD. Foremost amongst these is the *impact of intellectual property regimes on access to and use of genetic resources and scientific research*.<sup>47</sup>

In particular WIPO is invited to prepare a technical study and report its findings to the Conference of the Parties at its seventh meeting, on methods consistent with obligations in treaties administered by WIPO for requiring disclosure within patent applications of, *inter alia*:

- Genetic resources utilized in the development of the claimed inventions;
- The country of origin of genetic resources utilized in the claimed inventions;

<sup>43</sup> Darrel A. Posey, *Traditional Resource Rights: International Instruments for Protection and Compensation for Indigenous Peoples and Local Communities* (Gland: IUCN, 1996).

<sup>44</sup> R. V. Anuradha, *Between the CBD and TRIPS: What IPRs Mean for Local and Indigenous Communities* in Biswajit Dhar *et al.*, *supra* at note 16 at p.79.

<sup>45</sup> CTE, (1995) Committee on Trade and Environment of the World Trade Organization, 8 June, 1995. "Environment and TRIPS", WT/CTE/W/8 at p. 23.

<sup>46</sup> *Ibid* Annex (Section C).

<sup>47</sup> *Ibid*, 3(a).

- Associated traditional knowledge, innovations and practices used in the development of claimed inventions;
- The source of associated traditional knowledge and practices; and
- Evidence of prior informed consent.<sup>48</sup>

## **VI. Concluding comments**

Notwithstanding the recent efforts of the CBD COP to encourage Parties and governments to consider modifying the TRIPS Agreement to both recognise and harmonize TRIP obligations with those of the CBD in the context of access to genetic resources and the fair and equitable sharing of the benefits arising from the use of these resources, it does not appear promising in the short term that such efforts will be successful. Several major developed countries which include the United States, Japan and the European Union are pushing to raise the level of protection afforded intellectual property and do not appear amenable to fundamentally altering the TRIPS Agreement and existing IPR regimes to accommodate traditional knowledge. The difficulties facing those who wish to move forward on protecting traditional knowledge holders under existing IPR laws may be insurmountable for some of the reasons discussed in this paper and it may be necessary to pursue a more human rights-oriented agenda in this regard rather than rely upon a more enlightened WTO trade-related initiative.

On a more positive note, however, is the acknowledgement by both developed and developing countries that the concerns embodied in Article 8(j) are not going to simply disappear and will continue to remain at the forefront of all future discussions concerning the implementation of the CBD. The ultimate success or failure of the international community in meeting the dual objectives of conservation and sustainable development of biodiversity will, in large part, depend on how this fundamental issue is resolved.

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<sup>48</sup> *Ibid*, 4.

# Appendices

# Appendix I – The Earth Charter,<sup>1</sup> March 2000

## **Preamble**

We stand at a critical moment in Earth's history, a time when humanity must choose its future. As the world becomes increasingly interdependent and fragile, the future at once holds great peril and great promise. To move forward we must recognize that in the midst of a magnificent diversity of cultures and life forms we are one human family and one Earth community with a common destiny. We must join together to bring forth a sustainable global society founded on respect for nature, universal human rights, economic justice, and a culture of peace. Towards this end, it is imperative that we, the peoples of Earth, declare our responsibility to one another, to the greater community of life, and to future generations.

## ***Earth, our home***

Humanity is part of a vast evolving universe. Earth, our home, is alive with a unique community of life. The forces of nature make existence a demanding and uncertain adventure, but Earth has provided the conditions essential to life's evolution. The resilience of the community of life and the well-being of humanity depend upon preserving a healthy biosphere with all its ecological systems, a rich variety of plants and animals, fertile soils, pure waters, and clean air. The global environment with its finite resources is a common concern of all peoples. The protection of Earth's vitality, diversity, and beauty is a sacred trust.

## ***The global situation***

The dominant patterns of production and consumption are causing environmental devastation, the depletion of resources, and a massive extinction of species. Communities are being undermined. The benefits of development are not shared equitably and the gap between rich and poor is widening. Injustice, poverty, ignorance, and violent conflict are widespread and the cause of great suffering. An unprecedented rise in human population has overburdened ecological and social systems. The foundations of global security are threatened. These trends are perilous – but not inevitable.

## ***The challenges ahead***

The choice is ours: form a global partnership to care for Earth and one another or risk the destruction of ourselves and the diversity of life. Fundamental changes are needed in our values, institutions, and ways of living. We must realize that when basic needs have been met, human development is primarily about being more, not having more. We have the knowledge and technology to provide for all and to reduce our impacts on the environment. The emergence of a global civil society is creating new opportunities to build a democratic and humane world. Our environmental, economic, political, social, and spiritual challenges are interconnected, and together we can forge inclusive solutions.

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<sup>1</sup> Source: [www.earthcharter.org/files/charter/charter](http://www.earthcharter.org/files/charter/charter)

## **Universal responsibility**

To realize these aspirations, we must decide to live with a sense of universal responsibility, identifying ourselves with the whole Earth community as well as our local communities. We are at once citizens of different nations and of one world in which the local and global are linked. Everyone shares responsibility for the present and future well-being of the human family and the larger living world. The spirit of human solidarity and kinship with all life is strengthened when we live with reverence for the mystery of being, gratitude for the gift of life, and humility regarding the human place in nature.

We urgently need a shared vision of basic values to provide an ethical foundation for the emerging world community. Therefore, together in hope we affirm the following interdependent principles for a sustainable way of life as a common standard by which the conduct of all individuals, organizations, businesses, governments, and transnational institutions is to be guided and assessed.

## **Principles**

### **I. Respect and care for the community of life**

#### **1. Respect Earth and life in all its diversity.**

- (a) *Recognize that all beings are interdependent and every form of life has value regardless of its worth to human beings.*
- (b) *Affirm faith in the inherent dignity of all human beings and in the intellectual, artistic, ethical, and spiritual potential of humanity.*

#### **2. Care for the community of life with understanding, compassion, and love.**

- (a) *Accept that with the right to own, manage, and use natural resources comes the duty to prevent environmental harm and to protect the rights of people.*
- (b) *Affirm that with increased freedom, knowledge, and power comes increased responsibility to promote the common good.*

#### **3. Build democratic societies that are just, participatory, sustainable, and peaceful.**

- (a) *Ensure that communities at all levels guarantee human rights and fundamental freedoms and provide everyone an opportunity to realize his or her full potential.*
- (b) *Promote social and economic justice, enabling all to achieve a secure and meaningful livelihood that is ecologically responsible.*

#### **4. Secure Earth's bounty and beauty for present and future generations.**

- (a) *Recognize that the freedom of action of each generation is qualified by the needs of future generations.*
- (b) *Transmit to future generations values, traditions, and institutions that support the long-term flourishing of Earth's human and ecological communities.*

In order to fulfill these four broad commitments, it is necessary to:

## **II. Ecological integrity**

### **5. Protect and restore the integrity of Earth's ecological systems, with special concern for biological diversity and the natural processes that sustain life.**

- (a) *Adopt at all levels sustainable development plans and regulations that make environmental conservation and rehabilitation integral to all development initiatives.*
- (b) *Establish and safeguard viable nature and biosphere reserves, including wild lands and marine areas, to protect Earth's life support systems, maintain biodiversity, and preserve our natural heritage.*
- (c) *Promote the recovery of endangered species and ecosystems.*
- (d) *Control and eradicate non-native or genetically modified organisms harmful to native species and the environment, and prevent introduction of such harmful organisms.*
- (e) *Manage the use of renewable resources such as water, soil, forest products, and marine life in ways that do not exceed rates of regeneration and that protect the health of ecosystems.*
- (f) *Manage the extraction and use of nonrenewable resources such as minerals and fossil fuels in ways that minimize depletion and cause no serious environmental damage.*

### **6. Prevent harm as the best method of environmental protection and, when knowledge is limited, apply a precautionary approach.**

- (a) *Take action to avoid the possibility of serious or irreversible environmental harm even when scientific knowledge is incomplete or inconclusive.*
- (b) *Place the burden of proof on those who argue that a proposed activity will not cause significant harm, and make the responsible parties liable for environmental harm.*
- (c) *Ensure that decision making addresses the cumulative, long-term, indirect, long distance, and global consequences of human activities.*
- (d) *Prevent pollution of any part of the environment and allow no buildup of radioactive, toxic, or other hazardous substances.*
- (e) *Avoid military activities damaging to the environment.*

### **7. Adopt patterns of production, consumption, and reproduction that safeguard Earth's regenerative capacities, human rights, and community well-being.**

- (a) *Reduce, reuse, and recycle the materials used in production and consumption systems, and ensure that residual waste can be assimilated by ecological systems.*
- (b) *Act with restraint and efficiency when using energy, and rely increasingly on renewable energy sources such as solar and wind.*

- (c) *Promote the development, adoption, and equitable transfer of environmentally sound technologies.*
- (d) *Internalize the full environmental and social costs of goods and services in the selling price, and enable consumers to identify products that meet the highest social and environmental standards.*
- (e) *Ensure universal access to health care that fosters reproductive health and responsible reproduction.*
- (f) *Adopt lifestyles that emphasise the quality of life and material sufficiency in a finite world.*

**8. Advance the study of ecological sustainability and promote the open exchange and wide application of the knowledge acquired.**

- (a) *Support international scientific and technical cooperation on sustainability, with special attention to the needs of developing nations.*
- (b) *Recognize and preserve the traditional knowledge and spiritual wisdom in all cultures that contribute to environmental protection and human well-being.*
- (c) *Ensure that information of vital importance to human health and environmental protection, including genetic information, remains available in the public domain.*

### **III. Social and economic justice**

**9. Eradicate poverty as an ethical, social, and environmental imperative.**

- (a) *Guarantee the right to potable water, clean air, food security, uncontaminated soil, shelter, and safe sanitation, allocating the national and international resources required.*
- (b) *Empower every human being with the education and resources to secure a sustainable livelihood, and provide social security and safety nets for those who are unable to support themselves.*
- (c) *Recognize the ignored, protect the vulnerable, serve those who suffer, and enable them to develop their capacities and to pursue their aspirations.*

**10. Ensure that economic activities and institutions at all levels promote human development in an equitable and sustainable manner.**

- (a) *Promote the equitable distribution of wealth within nations and among nations.*
- (b) *Enhance the intellectual, financial, technical, and social resources of developing nations, and relieve them of onerous international debt.*
- (c) *Ensure that all trade supports sustainable resource use, environmental protection, and progressive labor standards.*
- (d) *Require multinational corporations and international financial organizations to act transparently in the public good, and hold them accountable for the consequences of their activities.*

- 11. Affirm gender equality and equity as prerequisites to sustainable development and ensure universal access to education, health care, and economic opportunity.**
- (a) *Secure the human rights of women and girls and end all violence against them.*
  - (b) *Promote the active participation of women in all aspects of economic, political, civil, social, and cultural life as full and equal partners, decision makers, leaders, and beneficiaries.*
  - (c) *Strengthen families and ensure the safety and loving nurture of all family members.*
- 12. Uphold the right of all, without discrimination, to a natural and social environment supportive of human dignity, bodily health, and spiritual well-being, with special attention to the rights of indigenous peoples and minorities.**
- (a) *Eliminate discrimination in all its forms, such as that based on race, color, sex, sexual orientation, religion, language, and national, ethnic or social origin.*
  - (b) *Affirm the right of indigenous peoples to their spirituality, knowledge, lands and resources and to their related practice of sustainable livelihoods.*
  - (c) *Honor and support the young people of our communities, enabling them to fulfill their essential role in creating sustainable societies.*
  - (d) *Protect and restore outstanding places of cultural and spiritual significance.*

#### **IV. Democracy, nonviolence, and peace**

- 13. Strengthen democratic institutions at all levels, and provide transparency and accountability in governance, inclusive participation in decision making, and access to justice.**
- (a) *Uphold the right of everyone to receive clear and timely information on environmental matters and all development plans and activities which are likely to affect them or in which they have an interest.*
  - (b) *Support local, regional and global civil society, and promote the meaningful participation of all interested individuals and organizations in decision making.*
  - (c) *Protect the rights to freedom of opinion, expression, peaceful assembly, association, and dissent.*
  - (d) *Institute effective and efficient access to administrative and independent judicial procedures, including remedies and redress for environmental harm and the threat of such harm.*
  - (e) *Eliminate corruption in all public and private institutions.*
  - (f) *Strengthen local communities, enabling them to care for their environments, and assign environmental responsibilities to the levels of government where they can be carried out most effectively.*

- 14. Integrate into formal education and lifelong learning the knowledge, values, and skills needed for a sustainable way of life.**
- (a) *Provide all, especially children and youth, with educational opportunities that empower them to contribute actively to sustainable development.*
  - (b) *Promote the contribution of the arts and humanities as well as the sciences in sustainability education.*
  - (c) *Enhance the role of the mass media in raising awareness of ecological and social challenges.*
  - (d) *Recognize the importance of moral and spiritual education for sustainable living.*
- 15. Treat all living beings with respect and consideration.**
- (a) *Prevent cruelty to animals kept in human societies and protect them from suffering.*
  - (b) *Protect wild animals from methods of hunting, trapping, and fishing that cause extreme, prolonged, or avoidable suffering.*
  - (c) *Avoid or eliminate to the full extent possible the taking or destruction of non-targeted species.*
- 16. Promote a culture of tolerance, nonviolence, and peace.**
- (a) *Encourage and support mutual understanding, solidarity, and cooperation among all peoples and within and among nations.*
  - (b) *Implement comprehensive strategies to prevent violent conflict and use collaborative problem solving to manage and resolve environmental conflicts and other disputes.*
  - (c) *Demilitarize national security systems to the level of a non-provocative defense posture, and convert military resources to peaceful purposes, including ecological restoration.*
  - (d) *Eliminate nuclear, biological, and toxic weapons and other weapons of mass destruction.*
  - (e) *Ensure that the use of orbital and outer space supports environmental protection and peace.*
  - (f) *Recognize that peace is the wholeness created by right relationships with oneself, other persons, other cultures, other life, Earth, and the larger whole of which all are a part.*

## The way forward

As never before in history, common destiny beckons us to seek a new beginning. Such renewal is the promise of these Earth Charter principles. To fulfill this promise, we must commit ourselves to adopt and promote the values and objectives of the Charter.

This requires a change of mind and heart. It requires a new sense of global interdependence and universal responsibility. We must imaginatively develop and apply the vision of a sustainable way of life locally, nationally, regionally, and globally. Our cultural diversity is a precious heritage and different cultures will find their own distinctive ways to

realize the vision. We must deepen and expand the global dialogue that generated the Earth Charter, for we have much to learn from the ongoing collaborative search for truth and wisdom.

Life often involves tensions between important values. This can mean difficult choices. However, we must find ways to harmonize diversity with unity, the exercise of freedom with the common good, short-term objectives with long-term goals. Every individual, family, organization, and community has a vital role to play. The arts, sciences, religions, educational institutions, media, businesses, nongovernmental organizations, and governments are all called to offer creative leadership. The partnership of government, civil society, and business is essential for effective governance.

In order to build a sustainable global community, the nations of the world must renew their commitment to the United Nations, fulfill their obligations under existing international agreements, and support the implementation of Earth Charter principles with an international legally binding instrument on environment and development.

Let ours be a time remembered for the awakening of a new reverence for life, the firm resolve to achieve sustainability, the quickening of the struggle for justice and peace, and the joyful celebration of life.

# Appendix II – Capacity building for environmental law in the Asian and Pacific Region: Approaches and resources

## Vols. I and II

### Table of contents

*Edited by Donna G. Craig, Nicholas A. Robinson and Koh Kheng-Lian, 2<sup>nd</sup> edition, 2003*  
*Asian Development Bank*

#### Volume 1 Contents

Summary of Contents	iii
Contents	v
Foreword	xiii
Preface	xvii
Editors' Acknowledgements	xix
Acknowledgements	xxi
Introduction	xxix

#### Chapter 1. Introduction to Environmental Law 1

1. Introduction	3
A. Teaching Guide	3
(i) Craig D., "Role of Science, Technology, Economic Approaches and Mechanisms, Public Participation, Financial Assistance in Environmental Law and Policy", <i>Syllabus prepared for IUCN/APCEL/UNEP Training the Trainers Course on Capacity Building for Environmental Legal Education</i> , Singapore, 1997	3
2. What is Environmental Law? The Template	6
A. Boer B. (Ed.), <i>Environmental Law Training Manual</i> , UNEP, Nairobi, Kenya, 1997, pp 3–9	6
3. The Role and Scope of International Environmental Law	8
A. Synopsis	8
B. Brown Weiss E., "New Directions in International Environmental Law", <i>United Nations Congress on Public International Law</i> , New York, 1995	9
4. The Role of Natural and Physical Sciences	13
A. O'Riordan T., "Introduction", in <i>Environmental Science for Environmental Management</i> , Essex, Longman Scientific & Technical, 1995, pp 6–8	13
B. Bewers J.M., "The Declining Influence of Science on Marine Environment Policy", <i>10 Chemistry and Ecology</i> , 1995, pp 9–23	15
5. Human Rights Issues	16

A.	Ksentini F.Z., “Human Rights, Environment and Development”, in Sun Lin and Kurukulasuriya L. (Eds.), <i>UNEP’s New Way Forward: Environmental Law and Sustainable Development</i> , UNEP, Nairobi, 1996, pp 51–72	16
6.	Cultural Issues: Indigenous Rights, Islamic Law and Customary Law	26
A.	Craig D. and Ponce Nava D., “Indigenous Peoples’ Rights and Environmental Law”, in Sun Lin and Kurukulasuriya L. (Eds.), <i>UNEP’s New Way Forward: Environmental Law and Sustainable Development</i> , UNEP, Nairobi, 1996, pp 171–184	27
B.	Abubakr Ahmed Bagader, Abdullatif Tawfik El-Chirazi El-Sabbagh, Mohamad As-Sayyid Al-Glayand, Mawil Yousuf Izzi-Deen Samarrai and Othman Abd-ar-Rahman Llewellyn, “Legislative Principles, Policies, and Institutions of Islamic Law which Govern the Procedures and Measures for the Protection and Conservation of the Environment”, in <i>Environmental Protection in Islam</i> , IUCN Commission on Environmental Law, Cambridge, 1994, pp 17–27	34
C.	Reti I., “The Role of Custom in Environmental Management and Law in the Pacific”, in Boer B. (Ed.), <i>Strengthening Environmental Legislation in the Pacific Region: Workshop Proceedings</i> , UNEP/IUCN/ACEL, Sydney, 1992, pp 57–61	41
7.	Environmental Law as a Foundation for Sustainable Development ( <i>Agenda 21</i> , Chapter 8)	45
A.	United Nations, “ <i>Agenda 21</i> : Preamble”, Programme of Action for Sustainable Development, A/CONF.151/26 (Vol. II) 13, Rio de Janeiro, Brazil, 1992	45
B.	United Nations, “ <i>Agenda 21</i> : Chapter 8: Integrating Environment and Development in Decision-Making”, Programme of Action for Sustainable Development, A/CONF.151/26 (Vol. II) 13, Rio de Janeiro, Brazil, 1992	46
8.	Characteristics of Environmental Law in Asia and the Pacific	56
A.	Boer B., “The Rise of Environmental Law in the Asian Region”, 32 <i>University of Richmond Law Review</i> 1503, January, 1999	56
B.	Tan A.K.J., <i>Environmental Law of the Southeast Asian Countries: A Preliminary Assessment</i> , Asia-Pacific Centre for Environmental Law (APCEL), Singapore, 1998	74
9.	Questions for Discussion	77
10.	References for Chapter 1	77
11.	Additional References	80

## **Chapter 2. Jurisprudence: The Principles, Ethics and Foundations of Environmental Law**

1.	Introduction	85
2.	Principles	87
A.	United Nations, <i>Declaration of the United Nations Conference on the Human Environment</i> , Stockholm, 11 ILM 1416, June 1972	87
B.	United Nations General Assembly, <i>World Charter for Nature</i> , UN GA RES 37/7, 1982	87
C.	World Commission on Environment and Development, “From One Earth to One World – An Overview by the World Commission on Environment and Development”, in WCED, <i>Our Common Future</i> , 1987, pp 1–23	90

	D. United Nations, <i>Rio Declaration on Environment and Development</i> , adopted at the United Nations Conference on Environment and Development, Rio de Janeiro, UN Doc. A/CONF.151/26 (Vol. I); 31 ILM 874, 1992	96
3.	Environmental Ethics	99
	A. Robinson N., “The ‘Ascent of Man’: Legal Systems and the Discovery of an Environmental Ethic”, 15 <i>Pace Environmental Law Review</i> , 1998, pp 497–513	99
	B. Intergenerational Equity	106
	(i) Brown Weiss E., “In Fairness to Future Generations: Intergenerational Law, Common Patrimony, and Intergenerational Equity”, in Brown Weiss, McCaffrey, McGraw, Sasz and Lutz, <i>International Environmental Law and Policy</i> , Aspen Law and Business, 1998, pp 59–65	106
	C. Indigenous Perspectives	110
	(i) Egede I., “Universal Ethics and the IUCN”, Representing the Inuit Circumpolar Conference, IUCN General Assembly, Buenos Aires, January 1994	110
	D. Environmental Justice	110
	(i) Glazewski J. and Bradfield G., <i>Environmental Justice and the Legal Process</i> , Juta and Co, 1999, pp 3–5	110
	(ii) Robinson N., “Principles of Environmental Justice: A Foundation for Dispute Prevention and Resolution”, <i>South Asia Co-operative Environmental Programme, Regional Symposium: Law in the Area of Sustainable Development</i> , July 1995	112
4.	The Techniques of Comparative Environmental Law	119
	A. Robinson N., “Comparative Environmental Law: Evaluating How Legal Systems Address Sustainable Development”, presentation for the Elizabeth Haub Colloquium, 17–19 April 1997, Wiesbaden, Germany	119
5.	Principles and Concepts in International Environmental Law	127
	A. Hunter D., Salzman J. and Zaelke D., “Principles and Concepts in International Environmental Law”, Chapter in <i>International Environmental Law and Policy</i> , New York, Foundation Press 1998, pp 319–326	127
6.	Questions for Discussion	131
7.	References for Chapter 2	131
8.	Additional References	132

### Chapter 3. Environmental Law Capacity Building

1.	Introduction	135
2.	Environmental Law Capacity Building	136
	A. Kaniaru D. and Kurukulasuriya L., “Capacity Building in Environmental Law”, in Sun Lin and Kurukulasuriya L. (Eds.), <i>UNEP’s New Way Forward: Environmental Law and Sustainable Development</i> , UNEP, Nairobi, pp 171–184	136
	B. Boer B. (Ed.), <i>Environmental Law in the South Pacific</i> , South Pacific Regional Environment Programme, IUCN Environmental Law Centre, 1996	143
3.	The Evolutionary Nature of Building Sustainable Development	145
	A. Robinson N., “Attaining Systems for Sustainability Through Environmental Law”, <i>Natural Resources and Environment</i> , Fall 1997, pp 86–88, 140–141	145
4.	Teaching Environmental Law	149

A.	Boer B., “Training the Trainers Programme – Teaching Methods for Environmental Law”, <i>IUCN/APCEL/UNEP Training the Trainers Course on Capacity Building for Environmental Legal Education</i> , Singapore, 1998	149
B.	Koh K.L., “Teaching Environmental Law: Trends in the Region”, paper presented at the IUCN-CEL Meeting, IUCN First World Congress, Panel on Teaching Environmental Law, Montreal, October 1996	152
C.	Robinson N., “Curriculum Planning For Teaching Environmental Law (International & Comparative)”, planning document for <i>IUCN/APCEL/UNEP Training the Trainers Course on Capacity Building for Environmental Legal Education</i> , 1994	159
5.	Examples of Environmental Law Curricula	161
A.	Illustrative Course Syllabi	161
B.	Existing Syllabi	161
(i)	UNITAR, “Training Government Staff in Vietnam on the Implementation of Multilateral Environmental Agreements”, <i>Environmental Law Training in Viet Nam Inaugural Workshop</i> , 1998	161
(ii)	Course Curriculum for the Diploma in Environmental Law, conducted by CEL, WWF-India, 2001	163
6.	Questions for Discussion	166
7.	Additional References	167

#### **Chapter 4. National Implementation of Environmental Law**

1.	Introduction	171
A.	Teaching Guide.	172
2.	National Environmental Legislation	173
A.	Wilson P., Ogolla B., Branes R. and Kurukulasuriya L., “Emerging Trends in National Environmental Legislation in Developing Countries”, in Sun Lin and Kurukulasuriya L. (Eds.), <i>UNEP’s New Way Forward: Environmental Law and Sustainable Development</i> , UNEP, Nairobi, pp 185–226	173
3.	Organization and Administration of Environmental Ministries	186
A.	Carew-Reid J., Prescott-Allen R., Bass S. and Dala-Clayton B., <i>Strategies for National Sustainable Development: A Handbook for their Planning and Implementation</i> , IIED/IUCN, 1994	186
B.	Australian Approach to Institutionalizing Sustainable Development	197
(i)	Boer B., “Institutionalising Ecologically Sustainable Development: The Roles of National, State, and Local Governments in Translating Grand Strategy into Action”, 31 <i>Willamette Law Review</i> , 1995, pp 342–355	197
4.	Local Agenda 21s	200
A.	Boer B., “Institutionalising Ecologically Sustainable Development: The Roles of National, State, and Local Governments in Translating Grand Strategy into Action”, 31 <i>Willamette Law Review</i> , 1995, pp 355–357	201
5.	Questions for Discussion.	202
6.	Additional References	202

#### **Chapter 5. Comparative Overviews of Asian and Pacific Environmental Law**

1.	Introduction	205
----	--------------	-----

2.	The Singapore Experience in the Development of Environmental Law	207
A.	Koh K.L., “Sustainable Singapore: A Model for Satellite Cities?” Paper presented at the International Conference Toward Sustainable Asia, Yokohama, Japan, 11–13 December 1997	207
B.	Foo K.B., Lye L.H., Koh K.L., “Environmental Protection: The Legal Framework”, in Ooi G.L. (Ed.), <i>Environment and the City: Sharing Singapore’s Experience and Future Challenges</i> , The Institute of Policy Studies and Times Academic Press	217
3.	Southeast Asia Case Studies of National Environmental Legislation.	236
A.	Tan A.K.J., “Viet Nam”, in <i>Environmental Laws of the Southeast Asian Countries: A Preliminary Assessment</i> , APCEL, 1998	236
B.	Chua S.C., “Brunei Darussalam Country Report”, Beckman, R. and Kurukulasuriya, L. (Eds.), <i>Environmental Legislation and Sustainable Development: Workshop Report</i> , UNEP/APCEL/MRLC, 1996, pp 19–40	245
C.	Chee W.L., “Cambodia Country Report”, Beckman R. and Kurukulasuriya L., (Eds.), <i>Environmental Legislation and Sustainable Development: Workshop Report</i> , UNEP/APCEL/MRLC, 1996, pp 42–57	254
D.	Tee T.C., “Environmental Law Developments in the Union of Myanmar”, 1997,1 <i>SJICL</i> , pp 609–614	262
E.	Mallikamarl S., “Environmental Protection under the Enhancement and Conservation of National Environmental Quality Act B.E. 2535 (AD 1992) in Thailand”, in Reeitsu K., N. Yoshihiro, F. Shigeaki, and S. Naoyuki (Eds.), <i>Development and the Environment: The Experiences of Japan and Industrializing Asia</i> , Institute of Developing Economies, 1995	266
F.	Koesnadi H., “Environmental Management and Law in Indonesia”, in Nomura Y. and N. Sakumoto (Eds.), <i>Environmental Law and Policy in Asia: Issues and Enforcement</i> , Institute of Developing Economies, Japan, 1997	275
4.	North-West Asia Case Studies of National Implementation	284
A.	Zahid H., “Country Report Pakistan” (1999), 4(2) <i>Asia Pacific Journal of Environmental Law</i> , pp 149–154	284
B.	Nomura Y., “History, Structure and Characteristics of Japan’s Environment Law”, in Reeitsu K., N. Yoshihiro, F. Shigeaki and S. Naoyuki (Eds.), <i>Development and the Environment: The Experiences of Japan and Industrializing Asia</i> , Institute of Developing Economies, 1995	286
C.	Wang Xi, <i>Implementing Rio Declaration and Agenda 21 in China Since 1992</i> , Research Institute of Environmental Law, Wuhan University, Wuhan, People’s Republic of China	297
5.	Pacific Island Case Studies of National Implementation	308
A.	Hewison G., “Environmental Law Reform in Vanuatu: The Challenges Facing a Small Island Developing Country”, 1997, 2(1) <i>Asia Pacific Journal of Environmental Law</i> , pp 27–38	308
B.	Pulea M., “Kingdom of Tonga”, in Boer Ben (ed), <i>Environmental Law in the South Pacific</i> , South Pacific Regional Environment Programme, IUCN Environmental Law Centre	314
6.	References for Chapters 4 and 5	331
7.	Additional References	332

## Chapter 6. Environmental Regulatory Strategies, Market Mechanisms, Enforcement and Compliance

1. Introduction	335
A. Teaching Guide	336
(i) Craig D., “Enforcement of Environmental Law and Standards – Legal and Economic Mechanisms”, syllabus prepared for <i>IUCN/APCEL/UNEP Training the Trainers Course on Capacity Building for Environmental Legal Education</i> , Singapore, 1998	336
2. Approaches to Environmental Regulation and Management	338
A. Traditional Approaches to Environmental Regulation	338
(i) Bernstein J.D., “Alternative Approaches to Pollution Control and Waste Management: Regulatory and Economic Instruments”, <i>UNDP/UNCHS/World Bank Urban Management Programme</i> , 1997, pp 1–20	338
(ii) Jeffery M., “Environmental Management and Market-Based Incentives”, prepared for this Chapter, Centre for Environmental Law, Macquarie University, August 2000	340
B. Economic Approaches to Environmental Regulation	342
(i) Bernstein J.D., “Alternative Approaches to Pollution Control and Waste Management: Regulatory and Economic Instruments”, <i>UNDP/UNCHS/World Bank Urban Management Programme</i> , 1997, pp 1–20	342
(ii) Jeffery M., “Environmental Management Through Market-Based Incentives: A Role For Carbon Trading”, prepared for <i>Macquarie University Centre For Environmental Law Conference on Environmental Law for the New Millennium</i> , August 2000, Sydney, pp 7–13	349
C. Comparison of Approaches	351
(i) Bernstein J.D., “Alternative Approaches to Pollution Control and Waste Management: Regulatory and Economic Instruments”, <i>UNDP/UNCHS/World Bank Urban Management Programme</i> , 1997, pp 1–20	351
3. Liability for Environmental Damage	353
A. Comparative Approaches to Liability and Designing Environmental Liability Regimes	353
(i) Environmental Law Institute, <i>Liability for Environmental Damage</i> , Environmental Law Institute, Washington, 1995, pp 3–28	353
B. Role of Criminal and Civil Law in Environmental Protection	368
(i) Pain N., “Criminal Law and Environment Protection Overview of Issues and Themes”, in Neil Gunningham <i>et al.</i> (eds), <i>AIC Conference Proceedings: Environmental Crime</i> , AIS, Canberra 1995, pp 73–85	368
C. International Dimensions – Liability of Nation States	374
(i) Sands P., “Liability for Environmental Damage”, in Sun Lin and Kurukulasuriya L. (Eds.), <i>UNEP’s New Way Forward: Environmental Law and Sustainable Development</i> , UNEP, Nairobi, pp 73–93	374
4. Enforcement and Compliance	383
A. National Approaches and Strategies	383
(i) Hughes <i>et al.</i> , <i>Environmental Law and Policy</i> , 2nd ed, Edmund Montgomery Publications, Toronto, 1998, pp 331–335	383
(ii) Swaigen J.Z., “A Case for Strict Enforcement of Environmental Statutes”, in Duncan L. (Ed.), <i>Environmental Enforcement</i> , Edmonton Environmental Law Centre, 1985	389
(iii) Saxe D., “The Impact of Prosecution of Corporations and their Officers and Directors upon Regulatory Compliance by Corporations”, 1990,	

Vol. 1, No. 1, <i>Journal of Environmental Law and Practice</i> , p 91	391
(iv) Kurukulasuriya L., “Role of Legislation in Environmental Management,” paper prepared for the <i>IUCN/APCEL/UNEP Course on Capacity Building for Environmental Legal Education</i> , Singapore, 1997	392
B. National Compliance with International Environmental Law	395
(i) Brown Weiss E. and Jacobson H.K., “Strengthening National Compliance with International Environmental Agreements”, in Serageldin I., and Martin-Brown J. (Eds.), <i>Partnerships for Global Ecosystem Management: Science, Economics and Law</i> , The World Bank, Washington, DC, 1998, pp 145–152	395
5. Questions for Discussion	401
6. References for Chapter 6	402
7. Additional References	402
<b>Chapter 7. Pollution Law, Integrated Management Systems and Transboundary Movement of Hazardous Wastes</b>	
1. Introduction	405
2. Water Pollution Control	406
A. Tan Q.H., “Water Pollution Control: Singapore’s Experience”, paper presented at the <i>World Bank Institute – Government of Singapore Seminar on Urban and Industrial Environment Management</i> , 12–21 April 1999, Shanghai	406
B. Batuwitige L.P., “Sri Lanka Country Report on Wastewater Treatment”, paper presented at Singapore – <i>World Bank Seminar on Pollution Management and Urban Air Quality in Asia</i> , Colombo, Sri Lanka, 15–19 November 1999	408
C. Funahashi J. and Dannenmaier E., “Using Effluent Charges to Abate Water Pollution in Malaysia”, in Saladin C., et al. (Eds.), <i>Using Law to Protect the Environment – Case Studies from Around the World</i> , USAID, Washington, 1996, pp 37–42	414
3. Air Pollution Control	417
A. Lakshman S.M., Air Pollution Management in Sri Lanka – Country Report, unpublished paper, 1999	417
4. Solid Waste Management	420
A. Madhyamankura K., “Solid Waste Management in Thailand”, paper presented at the <i>World Bank Institute – Government of Singapore Seminar on Urban and Industrial Environment Management</i> , Shanghai, April 1999	420
5. Enforcement of Pollution Law	425
A. Mallikamarl S., “Enforcement of the Environmental Law in Thailand: A Case Study of Pollution at Lamphun Industrial Estate”, in Nomura Y. and Sakumoto N. (Eds.), <i>Environmental Law and Policy in Asia: Issues and Enforcement</i> , Institute of Developing Economies, Japan, 1997	425
6. Integrated Sustainable Management Systems and Legislation	431
A. New Zealand	431
(i) Gow L., <i>New Zealand Resource Management Act: Implementing A Major Planning Law Reform</i> , Ministry for the Environment, New Zealand, 1991	431

B.	Singapore	436
	(i) Lye L.H., “Singapore’s New Environmental Law: The Environmental Pollution Control Act 1999” (2000), <i>SJLS</i> , pp 1–32	436
7.	Hazardous Waste Management	451
A.	The Basel Convention—Overview and Implementation	451
	(i) Beckman R., “The Basel Convention”, summary of outline presented at <i>IUCN/APCEL/UNEP Training the Trainers Course on Capacity Building for Environmental Legal Education</i> , Singapore, 1997	451
B.	National and Domestic Measures Required to Give Effect to the Basel Convention	453
	(i) Beckman R., “The Basel Convention”, summary of outline presented at <i>IUCN/APCEL/UNEP Training the Trainers Course on Capacity Building for Environmental Legal Education</i> , Singapore, 1997	453
C.	Technical Guidelines for the Environmentally Sound Management of Hazardous Wastes and Other Wastes	455
	(i) Beckman R., “The Basel Convention”, summary of outline presented at <i>IUCN/APCEL/UNEP Training the Trainers Course on Capacity Building for Environmental Legal Education</i> , Singapore, 1997	455
D.	Basel Convention – Model National Legislation	456
	(i) Legislation: National Model (SBC No. 95/004), <i>National Legislation on the Management of Hazardous Wastes as well as on the Control of Transboundary Movements of Hazardous Wastes and their Disposal</i> , January 1996 (E)	456
E.	Trade in Hazardous Waste and Environmental Justice	464
	(i) Lipman Z., “Trade in Hazardous Waste: Environmental Justice Versus Economic Growth”, revised and updated conference paper from <i>Environmental Justice: Global Ethics for the 21st Century</i> , Melbourne, 1997	464
F.	The Basel Protocol on Liability and Compensation	476
	(i) Lipman Z., The Basel Protocol on Liability and Compensation, unpublished paper, 2001	476
8.	Questions for Discussion	480
9.	References for Chapter 7	481
10.	Additional References	481

## **Chapter 8. Environmental Management Systems: Approaches to Corporate and Public Agency Environmental Stewardship**

1.	Introduction	485
A.	Teaching Guide	486
	(i) Craig D., “Environmental Management Systems”, syllabus prepared for <i>IUCN/APCEL/UNEP Training the Trainers Course on Capacity Building for Environmental Legal Education</i> , Singapore, 1998	486
B.	Atkinson N., “Environmental Policy and Management in Asia: A Learning Experience”, <i>Journal of Environmental Assessment and Policy</i> 1(1), March 1999, pp 81–104	486
2.	Example of Environmental Management Systems: ISO 14000	498
A.	Overview of ISO 14000 as a Management System	498
	(i) McCallum D. and Fredericks I., “International Standards For Environmental Management Systems: ISO 14000”, <i>Canadian Environmental Protection</i> , August 1995	498

B.	ISO and Environmental Marketing, Product Package Labelling and Environmental Statements	501
(i)	Connaughton J.L., “New International ‘Green Marketing,’ Standards Set by the Worldwide Foundation for Compliance and Enforcement”, American Bar Association, 3 <i>International Environmental Law Committee Newsletter</i> 1, 2000, pp 13–16	501
C.	Potential Role of ISO 14000 in the Asia-Pacific	503
(i)	Turberfield D., “ISO 14000: The Asia-Pacific Perspective”, paper presented at the Asia Pacific Institute of Environmental Assessment Seminar on Environmental Management Systems – The Industrial Context, Singapore, 8 November 1995	503
D.	Critique of ISO 14000	508
(i)	Krut R. and Gleckman H., <i>ISO 14000 – A Missed Opportunity for Sustainable Global Industrial Development</i> , Earthscan, 1998, pp 1–10	508
(ii)	Hart J., “New Chapter Begins for ISO 14000 Series: From Revisions to Climate Change, Experts Have Much Work Ahead”, American Bar Association, 3 <i>International Environmental Law Committee Newsletter</i> 1, 2000, pp 7–13	512
3.	Promoting Cleaner Production in Southeast Asia	515
A.	Sinclair D. and Gunningham N., “Promoting Cleaner Production in South East Asia”, 5(3) <i>Asia Pacific Journal of Environmental Law</i> , 2000, pp 207–215	515
4.	Use of Environmental Law in Commercial Transactions	519
A.	Due Diligence and Audits	519
(i)	Robinson N., “The Contemporary Commercial Practice of Environmental Law”, in <i>Seminar on Trade and Environment Law</i> , Singapore, 1998	519
(ii)	Craig D., “Environmental Law – Corporate Responsibilities and Commercial Transactions”, in Boer B., Fowler R., Gunningham N. (Eds.) <i>Environmental Outlook: Law and Policy</i> , 1994, pp 236–238	520
(iii)	Craig D., “Environmental Law – Corporate Responsibilities and Commercial Transactions”, in Boer B., Fowler R., Gunningham N. (Eds.), <i>Environmental Outlook: Law and Policy</i> , 1994, pp 226–230	521
B.	Technology Transfer	523
(i)	Doherty P., “The Transfer of Environmentally Sustainable Technologies to Asia”, <i>RECIEL</i> , Vol. 4, Issue 1, 1995, pp 33–39	523
5.	Planning	529
A.	Infrastructure Design and Finance	529
(i)	Khew E.T.F., “Public-Private Sector Collaboration in Environmental Management”, from outline of remarks presented to Singapore Association for Environmental Companies, 24 March 1998	530
6.	Energy Efficiency and Non-Polluting Fuels Use	530
A.	Bradbrook A., “Energy and Sustainable Development”, 4(4) <i>Asia Pacific Journal of Environmental Law</i> , 1999, pp 309–317	530
B.	Ottinger R.L. and Jayne M., “Global Climate Change Kyoto Protocol Implementation: Legal Frameworks for Implementing Clean Energy Solutions”, 18 <i>Pace Environmental Law Review</i> 19, Winter, 2000	534
7.	Case Study Problem	541
8.	Questions for Discussion	543
9.	References for Chapter 8	543

10. Additional References	544
<b>Chapter 9. Environmental Impact Assessment and Planning</b>	
1. Introduction	547
A. Teaching Guide	548
(i) Craig D., “Review of Comparative EIA Systems”, Syllabus prepared for IUCN/APCEL/UNEP Training the Trainers Course on Capacity Building for Environmental Legal Education, Singapore, 1998	548
B. Robinson N., “Questionnaire Response: USA Report”, International Environmental Conference on Codifying The Rio Principles in National Legislation, May 22–24, The Hague, Netherlands, 1996	549
C. UNEP, <i>EIA Training Resource Manual</i> , Preliminary Edition, June 1996, pp 139–158	551
2. Multidisciplinary Aspects	554
A. Kurukulasuriya L., “Environmental Impact Assessment Multi-Disciplinary Approach”, summary of outline prepared for IUCN/APCEL/UNEP Course on Capacity Building for Environmental Legal Education, Singapore, 1997	554
3. Cross-sectoral	554
A. Craig D., “Social Impact Assessment: Politically Oriented Approaches and Applications”, 10 <i>Environmental Impact Assessment Review</i> , 1990, pp 37–54	554
4. International Environmental Law	562
A. A Transboundary Context	562
(i) <i>United Nations Convention on Environmental Impact Assessment in a Transboundary Context</i> (Espoo Convention), 30 I.L.M. 800, 1991	562
B. EIA and Access to Information and Justice	569
(i) <i>Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters</i> (Århus Convention), 1998	569
5. Developing Country Experiences	569
A. Gupta A. and Asher M.G., <i>Environment &amp; the Developing World: Principles, Policies, and Management</i> , 1998, John Wiley and Sons, pp 239–243	569
B. Ebisemiju F.S., “EIA: Making it Work in Developing Countries”, 38 <i>Journal of Environmental Management</i> , 1993, pp 247–273	571
6. EIA in National Practice: Malaysia and Others	578
A. Briffet C., “Chapter 8: EIA in East Asia”, in Petts (Ed.), <i>Handbook of Environmental Impact Assessment, Vol. 2, EIA in Practice: Impact and Limitations</i> , Blackwell Science	578
B. Abdullah Lizuryaty Azrina, “Environmental Law and Its Enforcement in Malaysia: Focus on Environmental Impact Assessment (EIA) Process”, <i>Environmental Law in Asia</i> , pp 50–67	595
7. EIA and the Operation of Multilateral Financial Institutions	599
A. World Bank	599
(i) World Bank, “Environmental Assessment”, <i>The World Bank Operational Manual: Operational Policies</i> , World Bank, 1999	599
B. Asian Development Bank	603
(i) Asian Development Bank, “Environmental Considerations in Bank Operations”, <i>Operational Procedures (OP)</i> , ADB Strategy and Policy Office, January 1997	603

8. Planning	606
A. Malone-Lee L.C., “Environmental Planning”, paper presented at IUCN/APCEL/UNEP Training the Trainers Course on Capacity Building for Environmental Legal Education, Singapore, 1998	606
9. Questions for Discussion	615
10. References for Chapter 9	615
11. Additional References	616

## **Chapter 10. Citizen Participation, Access to Decision Making and Empowerment**

1. Introduction	619
2. Citizen Participation in Environmental Decisions	621
A. Approaches and Arguments for Participation	621
(i) Robinson D., “Public Participation in Environmental Decision-Making”, <i>Environmental and Planning Law Journal</i> , Vol. 10. No. 5, 1993, pp 320–335	621
B. Urban Development and Citizen Participation	623
(i) Arnstein S., “A Ladder of Citizen Participation”, <i>AIP Journal</i> , July 1969, pp 216–223	623
C. Citizen Participation and Sustainable Development Strategies	630
(i) Craig D., <i>Practices and Strategies for Ecological Sustainable Development: Conservation in Areas of High Conservation Value</i> , Macquarie University, Research Paper, May 1997	630
D. Partnerships with Indigenous Peoples and Local Communities	635
(i) Craig D., <i>Collaborative Management and Indigenous Co-Management</i> , Macquarie University, Research Paper, May 1997	635
E. National Councils for Sustainable Development – Multi-Stakeholders	636
(i) NCSD, <i>A Progress Report on the National Experiences of Multi-Stakeholder Processes for Sustainable Development</i> , 2000	636
(ii) Habito C.F., “NCSDs and the UNCSD: The Need for Multistakeholder Partnerships for Sustainable Development”, in NCSD REPORT 1999–2000, <i>National Experiences of Integrative, Multi-Stakeholder Processes for Sustainable Development</i> , 2000	637
(iii) Kalaw M.T., “Reflections on the Future of NCSDs”, in NCSD REPORT 1999–2000, <i>National Experiences of Integrative, Multi-Stakeholder Processes for Sustainable Development</i> , 2000	642
(iv) Republic of the Philippines, “The NCSD Sustainable Development Report”, in NCSD REPORT 1999–2000, <i>National Experiences of Integrative, Multi-Stakeholder Processes for Sustainable Development</i> , 2000	645
3. Comparative National and International Approaches to Citizen Participation in Enforcement	652
A. Casey Lefkowitz S., “A Comparative Look at the Role of Citizens in Environmental Enforcement”, 1997, <i>National Environmental Enforcement Journal</i> , Vol. 12, No. 5, pp 29–42	652
4. Access to Information	664
A. Environmental Law Institute, <i>Information Access Mechanisms: Collecting and Disseminating the Information Necessary for Environmental Protection</i> , Environmental Law Institute, Washington, 1993, pp 2–18	664
5. Intervenor Funding	672

A.	Jeffery M., “Intervenor Funding: Improving the Quality of Environmental Decision-making”, Revised Article, Macquarie University, February 2001, based on earlier article titled “The Role of Intervenor Funding in Project Approval”, <i>International Business Lawyer</i> , November, 1986, p 371	672
6.	Standing and Access to Justice	678
A.	Quicho R., <i>Watching the Trees Grow: New Perspectives on Standing to Sue</i> , IUCN CEL Philippine Group, 1995, pp 1–41	678
7.	Citizen Participation in Bangladesh	689
A.	Daud Hassan S.M., “Public Participation in Environmental Law in Bangladesh”, 4(2) <i>Asia Pacific Journal of Environmental Law</i> , 1999, pp 163–175	689
8.	Citizen Participation in International Law	694
A.	United Nations Economic Commission for Europe, <i>Introducing The Århus Convention</i> , UNECE, Environment and Human Settlements Division, 2001	694
B.	<i>Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters</i> (Århus Convention), 1998	695
9.	Questions for Discussion	702
10.	References for Chapter 10	703
11.	Additional References	703

## Chapter 11. Judicial Decisions and Alternative Dispute Resolution

1.	Introduction	707
A.	Okidi C. (Ed.), “Introduction”, <i>Compendium of Judicial Decisions on Matters Related to Environment, Vol. 1 – National Decisions</i> , December 1998, UNEP/UNDP, p ‘v’	708
B.	Chander Mehta M., “Making the Law Work for the Environment”, 2(4) <i>Asia Pacific Journal of Environmental Law</i> , 1997, pp 349–359	708
C.	H.E. Judge Weeramantry C.G., “Sustainable Development: An Ancient Concept Recently Revived”, Keynote Address in Kanairu D. <i>et al.</i> (Eds.), <i>Report of the Regional Symposium on the Role of the Judiciary in Promoting the Rule of Law in the Area of Sustainable Development</i> , SACEP/UNEP/NORAD, 1997	711
2.	Right to Environment	720
A.	The Philippines	720
(i)	<i>Oposa v Factoran</i> GR No 101083, 30 July 1993, in Okidi C. (ed), <i>Compendium of Judicial Decisions on Matters Related to Environment, Vol. 1 – National Decisions</i> , December 1998, UNEP/UNDP, pp 22–36	720
3.	Intergenerational Equity	727
A.	The Philippines	727
(i)	<i>Oposa v Factoran</i> GR No 101083, 30 July 1993, in Okidi C. (Ed.), <i>Compendium of Judicial Decisions on Matters Related to Environment, Vol. 1 – National Decisions</i> , December 1998, UNEP/UNDP, pp 22–36	727
4.	Citizen Suits	728
A.	Pakistan	728

	(i) <i>Ms. Shehla Zia and Others v Wapda</i> , PLD, 1994, SC 693, heard on 12 February 1994, in Okidi C. (ed), <i>Compendium of Judicial Decisions on Matters Related to Environment, Vol. 1 – National Decisions</i> , December 1998, UNEP/UNDP, pp 323–334	728
5.	Locus Standi	734
	A. Bangladesh	734
	(i) <i>Dr. Mohiuddin Farooque v Bangladesh and Others</i> , Civil Appeal No. 24 of 1995, 17 BLD (AD) 1997, Vol. XVII, pp 1–33, 1 BLC (AD), 1996, pp 189–219, in Okidi C. (ed), <i>Compendium of Judicial Decisions on Matters Related to Environment, Vol. 1 – National Decisions</i> , December 1998, UNEP/UNDP, pp 37–45	734
6.	Public Trust	742
	A. India	742
	(i) <i>M.C. Mehta v Kamal Nath and Others</i> , 1977, SCC 388 (India) in Okidi C. (ed), <i>Compendium of Judicial Decisions on Matters Related to Environment, Vol. 1 – National Decisions</i> , December 1998, UNEP/UNDP, pp 259–274	742
	B. Pakistan	747
	(i) <i>In Re Human Rights Case (Environment Pollution in Balochistan)</i> , PLD, 1994 Supreme Court 102 (Pakistan) in Okidi C. (ed), <i>Compendium of Judicial Decisions on Matters Related to Environment, Vol. 1 – National Decisions</i> , December 1998, UNEP/UNDP, pp 280–282	747
7.	Polluter Pays Principle	748
	A. India	748
	(i) <i>M.C. Mehta v Kamal Nath and Others</i> , 1977, SCC 388 (India) in Okidi C. (ed), <i>Compendium of Judicial Decisions on Matters Related to Environment, Volume One – National Decisions</i> , December 1998, UNEP/UNDP, pp 259–274	748
	(ii) <i>Indian Council for Enviro-Legal Action and Others v Union of India and Others</i> , 1996, 3 SCC 212 (India) in Okidi C. (ed), <i>Compendium of Judicial Decisions on Matters Related to Environment, Vol. 1 – National Decisions</i> , December 1998, UNEP/UNDP, pp 394–420	749
8.	Precautionary Principle	757
	A. Australia	757
	(i) <i>Leatch v National Parks and Wildlife Service and Shoalhaven City Council</i> , 1993, LGERA 270 in Okidi C. (ed), <i>Compendium of Judicial Decisions on Matters Related to Environment, Vol. 1 – National Decisions</i> , December 1998, UNEP/UNDP, pp 373–386	757
9.	The Concept of Sustainable Development	763
	A. International Court of Justice	763
	(i) <i>Case Concerning the Gabčíkovo-Nagymaros Project Hungary v Slovakia</i> , 25 September 1997, International Court of Justice, General List No. 92, in Okidi C. (ed), <i>Compendium of Judicial Decisions on Matters Related to Environment, Vol. 2 – International Decisions</i> , December 1998, UNEP/UNDP, pp 255–344	763
10.	Alternative Forms of Environmental Dispute Resolution	773
	A. Jeffery M.I., “Environmental Mediation: Its Proper Role Within Existing Adjudicative Assessment and Approval Processes”, Revised Article, Macquarie University, March 2001, based on an earlier article titled “Accommodating Negotiation in Environmental Impact Assessment and Project Approval Processes”, <i>Environmental and Planning Law Journal</i> , 4, 1988, p 244	773

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C.	Dispute Resolution Under the <i>UN Convention on the Law of Non-Navigational Uses of International Watercourses</i>	791
(i)	<i>UN Convention on the Law of Non-Navigational Uses of International Watercourses</i> , 36 ILM 700, 1997	791
11.	An International Environment Court?	793
A.	Rest A., “Peaceful Settlement of Transnational Environmental Conflicts. Why not by an International Court for the Environment?” Working Paper for the Conference of Biopolitics International Organization, Athens, 20–22 January 2001	793
12.	Questions for Discussion	803
13.	References for Chapter 11	803
14.	Additional References	804

## Appendices

Appendix I:	Program 1998: Teaching Environmental Law in the National and Regional Context	807
Appendix II:	Requirements for Country Report by Participants in “Training the Trainers” Course 1998	819

## Volume 2 Contents

<i>Summary of Contents</i>	iii
<i>Contents</i>	v
<i>Foreword</i>	xiv
<i>Preface</i>	xvii
<i>Editors’ Acknowledgements</i>	xix
<i>Acknowledgements</i>	xxi
<i>Introduction</i>	xxix

## Chapter 12. Sustainable Use of Freshwater Systems and Dams

1.	Introduction	3
A.	Beckman R., “Teaching Guide for Water Resources”, prepared for <i>IUCN/APCEL/UNEP Training the Trainers Course on Capacity Building for Environmental Legal Education</i> , Singapore, 1998	4
2.	Water Resources	5
A.	Singapore	5
(i)	Appan A., “Alleviating the Impact of Urbanization and Industrialization in Water Resources Development”, paper presented at the <i>IUCN/APCEL/UNEP Training the Trainers Course on Capacity Building for Environmental Legal Education</i> , Singapore, 1997	5
3.	Shared Water Resources—Regional and International Approaches	7

A. International Cooperation	7
(i) <i>UN Convention on the Law of Non-Navigational Uses of International Watercourses</i> , 36 ILM 700, 1997	7
(ii) Koh K.L., “Institutional Cooperation Relating to Water Resources – The Singapore Experience”, presented at the Workshop on Water Security in Southeast Asian and Oceania, Canberra, 1998	13
(iii) Bharat D., “Sharing of International Water Resources; The Ganga and Mahakali River Treaties”, 3(2) <i>Asia Pacific Journal of Environmental Law</i> , 1998, pp 172–177	18
B. Regional Cooperation	21
(i) Case Study: The Mekong River Basin	21
(a) Lee E., “The Mekong River Basin Agreement”, 1(1–2) <i>Asia Pacific Journal of Environmental Law</i> , 1996, pp 134–139	21
(b) <i>Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin</i>	24
4. Large Dams	30
A. Darcey T., <i>et al.</i> (Eds.), “Summary Report of the Workshop”, <i>Large Dams: Learning from the Past Looking at the Future</i> , IUCN, Gland, Switzerland, 1997, pp 3–5	30
B. Goodland R., “Environmental Sustainability in the Hydro Industry: Disaggregating the Debate”, in Darcey, T. <i>et al.</i> (eds), <i>Large Dams: Learning from the Past Looking at the Future</i> , IUCN, Gland, Switzerland, 1997, pp 69–73	31
C. Scudder T., “Social Impacts of Large Dam Projects”, in Darcey T., <i>et al.</i> (Eds.), <i>Large Dams: Learning from the Past Looking at the Future</i> , IUCN, Gland, Switzerland, 1997, pp 41–44	32
D. “Executive Summary”, in World Commission on Dams, <i>Dams and Development: A New Framework for Decision-Making</i> , 16 November 2000	35
E. The Ecological Consequences of Dams	42
(i) “Ecosystems and Large Dams: Environmental Performance” in The Report of the World Commission on Dams, <i>Dams and Development: A New Framework for Decision-Making</i> , 16 November 2000	42
F. Case Study – India	52
(i) Sardar Sarovar Dam	52
(a) Fisher W.F., “Development and Resistance in the Narmada Valley”, in William F. Fisher (Ed.), <i>Toward Sustainable Development: Struggling Over India’s Narmada River</i> , M.E. Sharpe, London, 1995, pp 1–46	52
G. Case Study – Malaysia	69
(i) Bakun Dam	69
(a) Raman M., “The 1996 Malaysian High Court Decision concerning the Bakun Hydro-Electric Dam Project”, 2(1) <i>Asia Pacific Journal of Environmental Law</i> , 1997, pp 93–97	69
H. Case Study – China	72
(i) Three Gorges Dams	72
(a) Wang Xi, “The Three Gorges Project and the Major Environmental Issues”, paper presented at the <i>IUCN/APCEL/UNEP Training the Trainers Course on Capacity Building for Environmental Legal Education</i> , Singapore, 1998	74
5. Questions for Discussion	81

6. References for Chapter 12	81
7. Additional References	82

### Chapter 13. Sustainable Use of Forests and Fisheries

1. Introduction	85
A. Hussain S., "Tenure in the Context of Sustainable Use of Natural Resources in Asia", in Oglethorpe J. (ed), <i>Tenure and Sustainable Use</i> , IUCN, Gland Switzerland, 1999	86
2. Forests	92
A. Documents and Instruments Relating to Forests	92
(i) United Nations, "Chapter 11: Combating Deforestation", <i>Agenda 21: Programme of Action for Sustainable Development</i> , Rio de Janeiro, Brazil, A/CONF.151/26 (Vol. II), 13 August 1992	92
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D. Dias A., "Causes of Deforestation and Environmental Impacts", summary of outline presented at the <i>IUCN/APCEL/UNEP Training the Trainers Course on Capacity Building for Environmental Legal Education</i> , Singapore, 1997	114
E. England P., "Thailand and The Rio Statement on Forest Principles: National Factors and Lessons for International Forest Policy", 2(1) <i>Asia Pacific Journal of Environmental Law</i> , 1997, pp 3–25	114
3. Fisheries	123
A. Documents and Instruments Relating to Fisheries	123
(i) <i>Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific</i> , Wellington, 29 ILM, 1449, 1990	123
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(iii) United Nations, "Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks", <i>United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks</i> , Sixth Session, UN Doc. A/CONF. 164/37, (1995); 34 ILM 1542 (1995)	128
(iv) United Nations General Assembly, "51/36. Large-scale pelagic drift-net fishing; unauthorized fishing in zones of national jurisdiction; and fisheries	

by-catch and discards”, Resolution Adopted by the General Assembly, General A/RES/51/36, 21 January 1997	132
B. Menasveta D., “Fisheries Management in the Exclusive Economic Zones of Southeast Asia Before and After Rio and Prospects for Regional Cooperation” in Koh K.L., Beckman R. and Chia L.S. (eds), <i>Sustainable Development of Coastal and Ocean Areas in Southeast Asia: Post-Rio Perspective</i> (1995), Singapore, pp 98–134	134
C. Hewison G., “The Precautionary Approach to Fisheries Management: An Environmental Perspective”, <i>International Journal of Marine and Coastal Law</i> , Vol.11, 1996, pp 301–332	149
D. Zou K., “Towards Sustainable Management of China’s Marine Fishery Resources: Law and Enforcement”, 1997, 2(3-4) <i>Asia Pacific Journal of Environmental Law</i> , pp 293–318	159
4. Questions for Discussion	170
5. References for Chapter 13	171
6. Additional References	171

## Chapter 14. Integrated Coastal Zone Management

1. Introduction	175
2. ICZM– What it is, How it Works, Managing Growth	177
A. Network for Environmental Training at Tertiary-Level in Asia and the Pacific (NETTLAP), United Nations Environment Programme–Regional Office for Asia and the Pacific (UNEP-ROAP), <i>Coastal Zone Management Training Issues</i> , NETTLAP/UNEP-ROAP, 2001	177
B. United Nations Environment Programme, “Emerging Issues Marine and Coastal Environments”, <i>Asia-Pacific Environment Outlook</i> , UNEP, Environment Assessment Programme for Asia and the Pacific 2000	178
C. Chua T.E., “Essential Elements of Integrated Coastal Zone Management”, 21 <i>Ocean and Coastal Management</i> 1993, pp 81–108	181
D. Caribbean Environment Programme, United Nations Environment Programme, “Development and Implementation of ICAM Programmes”, in <i>Guidelines for Integrated Planning and Management of Coastal and Marine Areas in the Wider Caribbean Region</i> , UNEP, 2001	189
3. Agenda 21 and ICZM	193
A. Bateman S., “Technical Cooperation For Sustainable Development: Capacity Building”, in Kusuma-Atmadja A., Mensah T.A., Oxman B.H. (Eds.), <i>Sustainable Development and Preservation of the Oceans: The Challenges of UNCLOS and Agenda 21</i> , Proceedings of The Law of the Sea Twenty-Ninth Annual Conference, Bali, Indonesia, 1995	193
4. The Role of Traditional Resource Use and Traditional Ecological Knowledge	205
A. Johannes R.E. and Ruddle K., “Human Interactions in Tropical Coastal and Marine Areas: Lessons from Traditional Resource Use”, in <i>Application of the Biosphere Reserve Concept to Coastal Marine Areas</i> , papers presented at the UNESCO/IUCN San Francisco Workshop of 14–20 August 1989, IUCN, Gland, Switzerland, 1993	205
5. Control of Land-Based Marine Pollution	210

A.	Vander Zwaag D., <i>International Law and Control of Land-Based Marine Pollution/Activities: Screams, Dreams and Despair</i> , South East Asian Programme in Ocean Law, 2001	210
6.	Batangas Bay, Philippines – Case Study in ICZM	220
A.	UNDP, “Batangas Bay Demonstration Project”, <i>UNDP Updates: Regional Programme for the Prevention and Management of Marine Pollution in the East Asian Seas</i> , Vol. II, No. 2, June 1996	220
7.	Xiamen, PRC – Case Study in ICZM	223
A.	UNDP, “Xiamen Project Shows Significant Achievements!” <i>UNDP Updates: Regional Programme for the Prevention and Management of Marine Pollution in the East Asian Seas</i> , Vol. II, No. 1, March 1996	223
B.	Chua T.E., Huming Y. and Chen G., “From Sectoral to Integrated Coastal Management: A Case in Xiamen, China”, <i>37 Ocean and Coastal Management</i> , 1997, pp 233–251	225
8.	The Role of Law and Lawyers in ICZM	227
A.	Beckman R. and Coleman B., “Integrated Coastal Management: The Role of Law and Lawyers”, <i>14(4) International Journal of Marine and Coastal Law</i> , 1999, pp 491–521	227
9.	Questions for Discussion	228
10.	References for Chapter 14	229
11.	Additional References	230

## Chapter 15. Cultural and Natural Heritage

1.	Introduction	233
2.	International and Regional Conventions on Natural and Cultural Heritage	235
A.	Boer B., Ramsay R. and Rothwell D.R., “Conservation of Natural and Cultural Heritage”, <i>International Environmental Law in the Asia Pacific</i> , Kluwer, 1998, pp 71–86	235
B.	Boer B., “World Heritage in the Asia Pacific”, <i>4(1) Asia Pacific Journal of Environmental Law</i> , 1999, pp 1–4	241
C.	<i>Convention Concerning the Protection of the World Cultural and Natural Heritage</i> , 11 I.L.M. 1358, 1972, (World Heritage Convention)	243
3.	Illustrative National Heritage Management Systems and Laws	249
A.	Australia	249
(i)	Boer B., “World Heritage Disputes in Australia”, <i>7 Journal of Environmental Law &amp; Litigation</i> , 1992, pp 247–279	249
B.	Nepal	256
(i)	Belbase N., “Country Reports: Nepal”, <i>1(1–2) Asia Pacific Journal of Environmental Law</i> , 1996, pp 93–104	256
C.	Philippines	259
(i)	Blastique T.T., “Case Study: World Heritage Convention for Biodiversity Conservation in the Philippines”, paper presented at the 2nd ECPA Forum on Protected Areas in Asia-Pacific, 5–12 December 1998, Pakse, Lao PDR	259
4.	Indigenous Cultural Heritage	262
A.	Boer B., Ramsay R. and Rothwell D.R., “Conservation of Natural and Cultural Heritage”, <i>International Environmental Law in the Asia Pacific</i> , Kluwer, 1998, pp 87–91	262

B.	Fergie D., “Federal Heritage Protection Where to Now? Cautionary Tales from South Australia”, in Finlayson J. and Jackson-Nakano A. (Eds.), <i>Heritage and Native Title: Anthropological and Legal Perspectives</i> , Native Title Research Unit, Australian Institute of Aboriginal and Torres Strait Islander Studies, Canberra, 1996, pp 40–52	264
5.	Underwater Heritage	272
A.	Boer B., Ramsay R. and Rothwell D.R., “Conservation of Natural and Cultural Heritage”, <i>International Environmental Law in the Asia Pacific</i> , Kluwer, 1998, pp 91–93	272
6.	Questions for Discussion	273
7.	References for Chapter 15	273
8.	Additional References	274

## **Chapter 16. Regional Environmental Law Cooperation: ASEAN and Others**

1.	Introduction	277
A.	Teaching Guide	277
2.	Asia-Pacific Subregional Organizations Relevant to the Environment	279
A.	Boer B., Ramsay R. and Rothwell D., “International Organizations and International Environmental Law”, in <i>International Environmental Law in the Asia Pacific</i> , 1998, Kluwer Law International, pp 39–46	279
3.	Pacific Regional Environmental Law Cooperation	282
A.	Boer B., Ramsay R. and Rothwell D., “Southwest Pacific”, <i>International Environmental Law in the Asia Pacific</i> , Kluwer Law International, 1998, pp 243–283	282
4.	ASEAN Cooperation in the Field of Environment	289
A.	Establishment of ASEAN	289
B.	ASEAN Organizational Framework in Environmental Management and Cooperation	289
C.	ASEAN Regional Centre for Biodiversity Conservation (ARCBC)	290
D.	ASEAN Policy Guidelines on the Environment	293
(i)	<i>Manila Declaration on the ASEAN Environment</i> , 1981	293
(ii)	<i>Jakarta Consensus on ASEAN Tropical Forestry of The Third Meeting of The ASEAN Economic Ministers on Agriculture and Forestry</i> , 1981	294
(iii)	<i>Bangkok Declaration on the ASEAN Environment</i> , 1984	294
(iv)	<i>Singapore Resolution on Environment and Development</i> , 1992	296
E.	Some Areas of ASEAN Environmental Cooperation	296
(i)	<i>Agreement on the Conservation of Nature and Natural Resources</i> , 1985	296
(ii)	<i>Memorandum of Understanding on ASEAN Sea Turtle Conservation and Protection</i> , 1997	305
(iii)	<i>Hanoi Plan of Action, 1999–2004</i>	307
F.	Koh K.L., “Ecosystem Management Approach to Biodiversity Conservation: The Role of ASEAN”, <i>The First ASEAN Environmental Forum</i> , 20–24 September 1999, Hanoi, Viet Nam	307
G.	<i>ASEAN Cooperation Plan on Transboundary Pollution</i> , 1995	316
(i)	Tay S.S.C., “The Southeast Asian Fires and Sustainable Development: What should be done about the Haze?”, <i>Indonesian Quarterly</i> , xxvi (2), pp 99–117	318

(ii)	Robinson N.A., “Forest Fires as a Common International Concern: Precedents for the Progressive Development of International Environmental Law”, <i>Pace Environmental Law Review</i> , 2000	331
5.	Other International Organizations Operating in Asia and the Pacific	351
A.	Boer B., Ramsay R. and Rothwell D., “International Organizations and International Environmental Law”, in <i>International Environmental Law in The Asia Pacific</i> , Kluwer Law International, 1998, pp 39–46	351
B.	South Asian Association for Regional Cooperation (SAARC)	353
C.	South Asia Cooperative Environment Programme	355
(i)	Kaniaru D., “Introduction”, in <i>Compendium of Summaries of Judicial Decisions in Environment Related Cases</i> , SACEP, UNEP, NORAD, 1997, pp xiv	355
6.	Questions for Discussion	355
7.	References for Chapter 16	356
8.	Additional References	356

## Chapter 17. Introduction to International Environmental Law

1.	Introduction	361
A.	Teaching Guide	363
(i)	Beckman B., “The Law of Treaties and the System of Multilateral Environmental Agreements and other Instruments”, prepared for <i>IUCN/APCEL/UNEP Training the Trainers Course on Capacity Building for Environmental Legal Education</i> , Singapore, 1997	363
(ii)	UNEP, “Introduction to International Law Relating to the Environment”, <i>Environmental Law Training Manual</i> , UNEP, 1997	366
2.	Defending the Global Commons	373
A.	Stone C., “Defending the Global Commons”, in Sands P. (ed), <i>Greening International Law</i> , Earthscan, London, 1994, pp 34–49	373
3.	Overview of International Environmental Law	381
A.	Role of Treaties in International Environmental Law	381
(i)	Stone C., “Treaties as Antidotes”, in Stone C., <i>The Gnat is Older than Man: Global Environment and Human Agenda</i> , Princeton University Press, 1993 pp 96–121	381
B.	Examples of Early Principles of International Environmental Law	392
(i)	“The Stockholm Declaration on the Human Environment”, <i>Report of the UN Conference on the Human Environment</i> , UN Doc A/CONF.48/14; ILM 1416, 1972	393
(ii)	<i>The Trail Smelter Arbitration US v. Canada</i> (1938 and 1941), Arbitral Tribunal: Hostie, Chairman; Warren, US member; Greenshields, Canadian member; 3 R.I.A.A. 2905	393
C.	Trends in International Environmental Law	394
(i)	Handl G., “Environmental Security and Global Change: The Challenge to International Law”, in Lang W., <i>et al.</i> , (Eds.), <i>Environmental Protection and International Law</i> , Graham and Trotman, 1991, pp 60–83	394
D.	North-South and Sovereignty Issues	405
(i)	Handl G., “Environmental Security and Global Change: The Challenge to International Law”, in Lang W., <i>et al.</i> , (Eds.), <i>Environmental Protection and International Law</i> , Graham and Trotman, 1991, pp 83–87	405

(ii) Koh T., “North-South Relations: Conflict and Cooperation”, in <i>The Quest for World Order: Perspectives of a Pragmatic Idealist</i> , The Institute of Policy Studies, Times Academic Press, 1997, pp 58–63	407
4. Institutionalizing Sustainability	409
A. Boer B., “Institutionalising Ecologically Sustainable Development: The Roles of National, State, and Local Governments in Translating Grand Strategy into Action”, 31 <i>Willamette Law Review</i> , 1995, pp 312–333	409
5. Example of Problem Method of Teaching International Environmental Law	417
A. Beckman R., <i>Introduction to Problem Method of Teaching</i> , Asia Pacific Centre for Environmental Law (APCEL), National University of Singapore, 1998	417
6. Policy Questions for Discussion	418
7. References for Chapter 17	419
8. Additional References	419

## Chapter 18. Marine Environmental Law

1. Introduction	423
A. Beckman R., <i>Syllabus for Marine Environmental Law and Policy</i> , 2000–2001, National University of Singapore, 2000–2001	424
2. The Significance of UNCLOS	427
A. <i>United Nations Convention on the Law of the Sea</i> , (Montego Bay), 21 ILM, 1261, 1982	427
B. Beckman R., <i>The Significance of Universal Acceptance of 1982 UNCLOS</i> , Asia-Pacific Centre for Environmental Law (APCEL), National University of Singapore, December, 2000	431
C. IUCN, <i>The Law of the Sea: Priorities and Responsibilities in Implementing the Convention</i> , IUCN, Gland, Switzerland, 1995	434
3. Regional Seas Treaties and Programmes	445
A. UNEP Water Branch, <i>Regional Seas Programme: General Strategy</i> , UNEP, 2001	445
B. Verlaan P., “Lecture on the International Legal Context for the Management of the Marine Environment”, in UNEP/UNITAR/UNCHS (Habitat) Training Program, <i>Environmental Law and Policy</i> , Nairobi, 1995	447
4. Marine Protected Areas	450
A. Salm R. and Dobbin J., “Planning, Management, and Administrative Processes for Marine Protected Areas”, in <i>Application of the Biosphere Reserve Concept to Coastal Marine Areas</i> , papers presented at the UNESCO/IUCN San Francisco Workshop of 14–20 August 1989, IUCN, Gland, Switzerland, 1993	450
5. The High Seas	455
A. de Fontaubert A.C., “Legal and Political Considerations”, in WWF/IUCN (eds), <i>The Status of Natural Resources on the High-Seas</i> , WWF/IUCN, Gland, Switzerland, 2001	455
6. Major Global Instruments Relating to Marine Pollution	466
A. Beckman R., <i>An Outline of the Major Global Instruments Relating to Pollution of the Marine Environment</i> , Asia-Pacific Centre for Environmental Law (APCEL), National University of Singapore, December 2000	466
7. National Implementation of Global Conventions on Marine Pollution – Problems in Implementing MARPOL 73/78	478

A.	Problems of Implementation	478
(i)	Beckman R., <i>National Implementation of Global Conventions on Marine Pollution – Problems in Implementing MARPOL 73/78</i> , Asia-Pacific Centre for Environmental Law (APCEL), National University of Singapore, December 2000	478
8.	Case Study on Implementation of MARPOL – Singapore	481
A.	Singapore’s Implementation of Marpol 73/78	481
(i)	Beckman R., <i>National Implementation of Global Conventions on Marine Pollution – Problems in Implementing MARPOL 73/78</i> , Asia-Pacific Centre for Environmental Law (APCEL), National University of Singapore, December 2000	481
B.	Singapore’s Implementation of the Civil Liability and Fund Conventions for Oil Pollution Damage	482
(i)	Beckman R., <i>National Implementation of Global Conventions on Marine Pollution – Problems in Implementing MARPOL 73/78</i> , Asia-Pacific Centre for Environmental Law (APCEL), National University of Singapore, December 2000	482
C.	Song San Case Study on the Enforcement of Marine Pollution Laws in Singapore	483
(i)	Beckman R., <i>National Implementation of Global Conventions on Marine Pollution – Problems in Implementing MARPOL 73/78</i> , Asia-Pacific Centre for Environmental Law (APCEL), National University of Singapore, December 2000	483
6.	Questions for Discussion	483
7.	References for Chapter 18	484
8.	Additional References	484

## Chapter 19. Trade and Environment

1.	Introduction	489
A.	Teaching Guide	490
(i)	Vaughan S., “Lecture Outline on Trade and Environment: An Introduction”, in UNEP/UNITAR/UNCHS (Habitat) Training Program, <i>Environmental Law and Policy</i> , Nairobi, 1995	490
B.	Craig D., <i>Introduction to Trade and Environment</i> , Centre for Environmental Law, Macquarie University, August 2000	491
2.	The Trade and Environment Debate	493
A.	Brack D., “Introduction: The Trade and Environment Debate”, in <i>Trade and Environment: Conflict or Compatibility</i> , Royal Institute of International Affairs, London, 1998, pp 1–25	493
B.	Tay S. and Esty D., “Trade and Environment; Context and Controversy”, in Tay S. and Esty D. (eds), <i>Asian Dragons and Green Trade</i> , Times Academic Press, 1996, pp 1–17	499
3.	Trade and Multilateral Environmental Agreements: Convention on International Trade in Endangered Species of Wild Fauna and Flora, 1973	508
A.	Introduction to CITES	508
(i)	Cyrille de Klemm and Clare Shine, <i>International Environmental Law: Biological Diversity</i> , Programme of Training for the Application of Environmental Law, UNITAR, UNEP, IUCN, 1998, pp. 63–72	508

B.	<i>Convention on International Trade in Endangered Species of Wild Fauna and Flora</i> (Washington), 993 UNTS 243; 12 ILM 1085, 1973	513
C.	Implementation and Enforcement	519
	(i) Kobayashi M., “The Enforcement of CITES”, in Nomura Y. and Sakumoto N. (eds), <i>Environmental Law and Policy in Asia: Issues of Enforcement</i> , Institute of Developing Economies, Japan, 1997	519
	(ii) De Klemm C., <i>Guidelines for Legislation to Implement CITES</i> , IUCN Gland, Switzerland and Cambridge, UK, 1993, pp 85–107	524
	(iii) Chen H.K., “Effective CITES Implementation”, in Workshop Proceedings on International Conventions and Treaties, 1999	526
D.	National Implementation of CITES in Singapore	534
	(i) Lye L.H., “The Implementation of the Convention on International Trade in Endangered Species in Singapore” 2:1 <i>Journal of International Wildlife Law &amp; Policy</i> , 1999, pp 46–62	534
4.	Competitiveness Theory	542
A.	Esty D., “Environment Regulation and Competitiveness: Theory and Practice”, in Tay and Esty (eds), <i>Asian Dragons and Green Trade</i> , Times Academic Press, 1996, pp 33–47	542
B.	Asian Perspectives on Competitiveness Theory	550
	(i) Vossenaar R. and Jha V., “Competitiveness: An Asian Perspective”, in Tay and Esty (Eds.), <i>Asian Dragons and Green Trade</i> , Times Academic Press, 1996, pp 49–68	550
	(ii) Ewing K.P. and Tarasofsky R.G., <i>The Trade &amp; Environment Agenda: Survey of Major Issues and Proposals – From Marrakesh to Singapore</i> , IUCN, Gland, Switzerland and Cambridge, UK, 1997, pp 23–26	560
5.	Case Studies	571
A.	Tuna-Dolphin Dispute	571
	(i) <i>General Agreement on Tariffs and Trade: Dispute Settlement Panel Report on United States Restrictions on Imports of Tuna</i> , 30 ILM 1594, 1991	571
	(ii) Goldberg D., “GATT Tuna-Dolphin II: Environmental Protection Continues to Clash with Free Trade”, <i>CIEL Brief</i> , June 1994, No. 2	581
B.	Shrimp-Turtle Dispute	585
	(i) <i>World Trade Organization: United States – Import Prohibition of Certain Shrimp And Shrimp Products</i> , 38 ILM 118, 1999	585
6.	Improving Trade and Environment Regimes	588
A.	Asian Perspectives and Future Trends	588
	(i) Tay S.S.C., “The Way Ahead in Asia”, in Tay and Esty (eds), <i>Asian Dragons and Green Trade</i> , Times Academic Press, 1996, pp 189–201	588
B.	Governance Issues	592
	(i) Charnovitz S., “Improving Environmental and Trade Governance”, <i>International Environmental Affairs</i> , Vol. 7. No. 1, Winter, 1995, pp 59–76	592
7.	Questions for Discussion	600
8.	References for Chapter 19	600
9.	Additional References	602

## Chapter 20. Biological Diversity

1.	Introduction	607
	A. Teaching Guide	608
2.	Biological Diversity: Nature and Values, Losses and their Causes	610

A.	WRI/IUCN/UNEP, <i>Global Biodiversity Strategy: Guidelines to Save, Study and Use Earth's Biotic Wealth Sustainably and Equitably</i> , WRI/IUCN/UNEP, 1992, pp 1–5, 7–18	610
3.	Preconvention on Biological Diversity: International Instruments and Initiatives	617
A.	The Convention on the Conservation of Migratory Species of Wild Animals	617
(i)	de Klemm C. and Shine C., "International Environmental Law: Biological Diversity", Course 6, Programme of Training for the Application of Environmental Law, UNITAR/UNEP/IUCN, 1998, pp 63–72, 78–96	617
B.	RAMSAR	620
(i)	de Klemm C. and Shine C., "The Emergence of Legal Responses at International Level", in <i>Wetlands, Water and the Law: Using Law to Advance Wetland Conservation and Wise Use</i> , IUCN, Gland, Switzerland, pp 27–42	622
(ii)	D'Cruz R., "Implementation of the Ramsar Strategic Plan 1997– 2002 in the South East Asia Region", <i>Workshop on International Conventions and Treaties Proceedings</i>	629
(iii)	Hassan P., <i>Legal Framework for Wise Use of Wetlands: A Regional Perspective</i> , Keynote address at the Asian Wetlands Symposium 2001, Penang, Malaysia, Ramsar Center, Japan, Universiti Sains Malaysia, Wetlands International-Asia and Pacific, and the Ministry of Science, Technology and the Environment, Government of Malaysia, 2001	635
C.	UNESCO Biosphere Reserves	642
(i)	Conservation International-UNESCO, <i>Biosphere Reserves Partnerships</i> , CI-UNESCO, 2001	643
4.	The Convention on Biological Diversity	644
A.	Overview	644
(i)	Glowka L., Burhenne-Guilmin F. and Synge H., in collaboration with McNeely J. and Guendling L., <i>A Guide to the Convention on Biological Diversity</i> , IUCN, 1994, pp 1–7	645
B.	Conservation and Sustainable Use	652
(i)	de Klemm C., Tolentino A. Jr., Burhenne-Guilmin F., Tarasofsky R., Glowka L. and Craig D., <i>Conserving Biological Diversity: The Legal and Institutional Issues, Biodiversity Conservation in the Asia and Pacific Region – Constraints and Opportunities</i> , Asian Development Bank and The World Conservation Union, 1995, pp 408–429	652
(ii)	de Klemm C., "The Regulation and Management of Destructive Processes: A New Type of Instrument for the Conservation of Biological Diversity", <i>27 Environmental Policy and Law</i> 4, 1997 pp 350–354	661
C.	Access to Genetic Resources and Benefit-Sharing	665
(i)	de Klemm C., Tolentino A. Jr., Burhenne-Guilmin F., Tarasofsky R., Glowka L. and Craig D., <i>Conserving Biological Diversity: The Legal and Institutional Issues, Biodiversity Conservation in the Asia and Pacific Region – Constraints and Opportunities</i> , Asian Development Bank and IUCN – The World Conservation Union, 1995, pp 434–437	666
(ii)	Ten Kate K. and Laird S., <i>The Commercial Use of Biodiversity – Access to Genetic Resources and Benefit Sharing</i> , Earthscan Publication, 1999, pp 17–32	668
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D. Biosafety	701
(i) Burhenne-Guilmin F., “The Biosafety Protocol is Adopted in Montreal”, <i>Environmental Policy and Law</i> , 2000	701
5. Relationships Between the CBD and Other Biodiversity Related International Instruments	705
A. Wold C., “The Futility, Utility and Future of the Biodiversity Convention”, <i>Colorado Journal of International Environmental Law and Policy</i> , Vol. 9, No 1, 1998, pp 30–37.	705
6. Asian Strategies for Conserving Biological Diversity	709
A. Huu D., Minister of Science Technology and Environment, <i>Viet Nam National Action Plan on Biological Diversity</i> , The Government Socialist Republic of Viet Nam, Hanoi, 1995	709
B. Salim E., “Preface-Keynote Address”, <i>The Report of the Indonesian Country Study on Biological Diversity</i> , UNEP, 1993	715
7. References for Chapter 20	718
8. Additional References	718

## Chapter 21. Protecting the Ozone Layer

1. Introduction	723
A. Teaching Guide	724
(i) Craig D., <i>Climate Modification and Stratospheric Ozone as an Example of a Modern Multilateral Environmental Agreement</i> , Macquarie University, 2001	724
2. Nature of the Environmental Problem and Legal Regime	727
A. Miller M., “The Ozone Layer Protection Regime”, in <i>The Third World in Global Environmental Politics</i> , Lynne Rienner Boulder Publications, 1995	727
3. The Vienna Convention and the Montreal Protocol	736
A. <i>Vienna Convention for the Protection of the Ozone Layer</i> , 1985	736
(i) Hunter D., Salzman J. and Zaelke D., “Principles and Concepts in International Environmental Law”, <i>International Environmental Law and Policy</i> , New York, Foundation Press, 1998, pp 319–326	736
B. <i>The Montreal Protocol</i>	737
(i) Summary of Protocol Provisions	737
(a) Hunter D., Salzman J. and Zaelke D., “The Law of Air and Atmosphere”, in <i>International Environmental Law and Policy</i> , New York, Foundation Press, 1998, pp 561–564	737
(ii) Schedule of Phase-Outs of Ozone-Depleting Substances	738
(a) Hunter D., Salzman J. and Zaelke D., “The Law of Air and Atmosphere”, <i>International Environmental Law and Policy</i> , New York, Foundation Press, 1998, p 574	738
(iii) <i>The Montreal Protocol on Substances That Deplete the Ozone Layer</i> , 26 ILM, 1550, 1987	738
(iv) Compatibility with the GATT746	
(a) Hunter D., Salzman J. and Zaelke D., “The Law of Air and Atmosphere”, <i>International Environmental Law and Policy</i> , New York,	

Foundation Press 1998, p 596	746
4. Building a Monitoring and Compliance Regime Under the Montreal Protocol	747
A. Barratt Brown E., “Building a Monitoring and Compliance Regime under the Montreal Protocol”, 1991, <i>Yale Journal of International Law</i> , pp 519–570	747
B. Yoshida O., “Soft Enforcement of Treaties: The Montreal Protocol’s Noncompliance Procedure and the Functions of Internal International Institutions”, 10 <i>Colorado Journal of International Environmental Law and Policy</i> , Winter, 1999, pp 95–141	761
5. Current Issues and Concerns	775
A. Illegal Trade in Ozone-Depleting Substances	775
(i) Solow S.P., “The Big Chill: How Federal Agencies Are Working Together to Stop CFC Smuggling”, 1997 <i>National Enforcement Journal</i> , Vol. 12, No. 5, pp 9–14	775
6. Questions for Discussion	778
7. References for Chapter 21	779
8. Additional References	779

## Chapter 22. Climate Change

1. Introduction	783
A. Nature of Global Environmental Problems and Differential Responsibilities	785
(i) Clayton K., “The Threat of Global Warming”, in O’Riordan T. (ed), <i>Environmental Science for Environmental Management</i> , Longman, Manchester, 1995, pp 110–130	785
(ii) IPCC Working Group I, “Summary for Policy Makers”, <i>Climate Change 2001: The Scientific Basis</i> , Report of Working Group I of Intergovernmental Panel on Climate Change, IPCC, January 2001	794
B. The Association of Small Island States: Vulnerability, Risk and Differential Responsibility	802
(i) Slade T.N., Permanent Representative of Samoa to the United Nations and Chairman of the Alliance of Small Island States (AOSIS), “Small Island States: Special Characteristics for Development”, Keynote Address, <i>Seminar on Small Island Developing States: Their Vulnerability, Their Program of Action for Sustainable Development, Their Opportunities for Post-Lomé</i> , Brussels, 1–2 September 1998	803
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2. Overview of the Global Regulatory Framework	809
A. Jeffery M. and Baird W., “Using Market-Based Incentives to Curtail Greenhouse Gas Emissions: Factors to Consider in the Design of the Clean Development Mechanism, Joint Implementation and Emissions Trading”, <i>Asia Pacific Journal of Environmental Law</i> , 2001, pp 10–19	809
3. The Kyoto Protocol	814
A. <i>Kyoto Protocol to the United Nations Framework Convention on Climate Change</i> , 39 ILM, 22 (1998)	814
4. Flexibility Mechanisms Under the Kyoto Protocol	826

A.	Jeffery M. and Baird W., “Using Market-Based Incentives to Curtail Greenhouse Gas Emissions: Factors to Consider in the Design of the Clean Air Development Mechanism, Joint Implementation and Emissions Trading”, <i>Asia Pacific Journal of Environmental Law</i> , 2001, pp 19–28	826
5.	Energy Issues and Climate Change	831
A.	UNDP/UNDESA/WEC, <i>World Energy Assessment: Energy and the Challenge of Sustainability – An Overview</i> , UNDP, 2001	831
6.	Case Study Problem	847
A.	Craig D., <i>Negotiation for Amendments to the Kyoto Protocol (1998) Under the Framework Convention on Climate Change</i> , Centre for Environmental Law, Macquarie University, 2000	847
7.	Questions for Discussion	848
8.	References for Chapter 22	849
9.	Additional References	849

## Chapter 23. Financing Sustainable Development

1.	Introduction	853
2.	Protecting and Valuing Environmental Services	855
A.	Salzman J., Thompson B.H. Jr. and Daily G.C., “Protecting Ecosystem Services: Science, Economics, and Law”, 20 <i>Stanford Environmental Law Journal</i> 309, 2001	855
3.	Limits of Traditional Economic and Accounting Approaches and Environmental Funding	862
A.	Obstacles to Environmental Financing	863
(i)	Oogai O. and Tanaka A., “Sources of Funds for Environmental Management”, in Owens G.M. (ed), <i>Financing Environmentally Sound Development</i> , Asian Development Bank, 1994, pp 101–109	863
B.	Political and Institutional Obstacles to Environmental Financing	866
(i)	Oogai O. and Tanaka A., “Sources of Funds for Environmental Management”, in Owens G.M. (ed), <i>Financing Environmentally Sound Development</i> , Asian Development Bank, 1994, pp 109–115	866
C.	Asia-Pacific Regional Environmental Problems and Funding Issues	869
(i)	Oogai O. and Tanaka A., “Sources of Funds for Environmental Management”, in Owens G.M. (ed), <i>Financing Environmentally Sound Development</i> , Asian Development Bank, 1994, pp 115–129	869
4.	National Environmental Funds	875
A.	Robinson N., Illustrative Governmental Funds Dedicated to Sustaining Environmental Service, unpublished paper, 2001	875
5.	Financing Through Additionality and the Provision of Incremental Costs	876
A.	Jordan A. and Werksman J., “Financing Global Environmental Protection”, in Cameron J., Werksman J., and Roderick P. (eds), <i>Improving Compliance with International Environmental Law</i> , London, Earthscan, 1996, pp 247–256	876
6.	Funding for Biodiversity Conservation	882
A.	Financing the Convention on Biological Diversity	882
(i)	<i>Convention on Biological Diversity</i> , 31 ILM 818, 1992	882

(ii) IUCN, “The Funding Debate and the Compromise Reflected in Articles 20, 21 and 39”, in <i>A Guide to the Convention on Biological Diversity</i> , 1994, p 101	883
B. Incremental Costs	884
(i) IUCN, “Incremental Costs”, in <i>A Guide to the Convention on Biological Diversity</i> , IUCN, 1994, pp 103–104	884
7. The Role of the Asian Development Bank	885
A. Boyd J., <i>Financing and Capacity Building for Environmental Law in Asia: The Role of the Asian Development Bank</i> , unpublished paper, 2001	885
8. The Role of the World Bank and Global Environment Facility	895
A. Outline of the Global Environment Facility	895
(i) Global Environment Facility, <i>What is the Global Environment Facility?</i> GEF, 2001	895
(ii) IUCN, “The Funding Debate and the Compromise Reflected in Articles 20, 21 and 39”, <i>A Guide to the Convention on Biological Diversity</i> , 1994, p 104	896
B. Di Leva C.E., “International Environmental Law and Development”, <i>The Georgetown International Environmental Review</i> , Vol. 10, Issue 2, Winter 1998, pp 501–549	897
9. Innovative Financial Mechanisms: Debt Swaps	914
A. Freeland S., <i>The Use of the Non-Equity Debt Exchange Mechanism for Environmental and Development Purposes</i> , Faculty of Law, University of New South Wales, Australia, unpublished paper, 2001, pp 1–2, 16–37	914
10. Privatization and Environmental Law	929
A. Richardson B., “Changing Regulatory Spaces: The Privatisation of New Zealand Environmental Law”, in Richardson B., <i>Environmental Justice and Market Mechanisms</i> , Kluwer International, Netherlands, 1999, pp 209–214	929
11. Foreign Investment and the Role of Multinational Corporations	932
A. Sornarajah M., “Foreign Investment and International Environmental Law”, in Sun Lin and Kurukulasuriya L. (eds), <i>UNEP’s New Way Forward: Environmental Law and Sustainable Development</i> , UNEP, Nairobi, pp 283–297	932
12. Questions for Discussion	939
13. References for Chapter 23	940
14. Additional References	941

## Chapter 24. The Future

1. Introduction	945
A. McNeely J., “Whither the National Challenges that will Confront Environmental Law in Asia and the Pacific?” in <i>Conservation Challenges of the 21<sup>st</sup> Century</i> , presented to the Royal Society of Edinburgh/Scottish Natural Heritage Annual Lecture, Edinburgh, Scotland, 7 April 1999	945
2. Evolving International Norms and Ethics	961
A. The Earth Council, <i>The Earth Charter</i> , The Earth Charter Initiative, International Secretariat, The Earth Council, March 2000	961
3. Towards an Integrated Environmental Law	965

A.	Robinson N.A., “‘Colloquium: The Rio Environmental Law Treaties’ IUCN’s Proposed Covenant on Environment & Development”, 13 <i>Pace Environmental Law Review</i> 133, 1995	965
B.	IUCN Commission on Environmental Law, <i>Draft Covenant on Environment and Development, 2<sup>nd</sup> Edition: Updated Text</i> , IUCN in cooperation with International Council of Environmental Law, 2000	974
4.	Environmental Issues and Good Governance	984
A.	Hassan P., “Elements of Good Environmental Governance”, Keynote address presented at the Asia Pacific Forum on Environmental Governance and Sustainable Development: <i>Toward Partnership Building Among Parliamentarians, Civil Society Organizations, Private Sector and Government</i> , at United Nations University, Tokyo, Japan, UNDP, ESCAP and the Government of Japan, May 2001	984
5.	Armed Conflict and the Environment	990
A.	Penna L.R., <i>Saving the Environment During Armed Conflicts</i> , unpublished paper, 2001	990
6.	References for Chapter 24	992
7.	Additional References	993

## Appendices

Appendix III: ASEAN Strategic Plan of Action on the Environment, 1994–1998	1041
Appendix IV: Kota Kinabalu Resolution on the Environment, Kota Kinabalu, Sabah, Malaysia	1043
Appendix V: ASEAN Agreement on Transboundary Haze Pollution	1045



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