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Transboundary Damage in International Law

The Chernobyl disaster, the *Amoco Cadiz* oil spill and the Colorado River dispute are examples of an activity conducted by one State which has serious adverse effects in the territory of another, or in global common areas. This book details the international rules and compensation procedures, and is intended for use by governmental officials, international lawyers and jurists. It discusses existing laws on international liability and considers the underlying legal issues that require further development. It is one of the few books on the subject written from the perspective of a developing country with rapid economic and social development.

XUE HANQIN is Director-General of the Law and Treaty Department of the Ministry of Foreign Affairs of China. She is one of the first women members of the International Law Commission. She has broad experience in both bilateral and multilateral negotiations of international treaties on various subjects of public international law. She is also a professor of law at the Beijing University School of Law and the College of Foreign Diplomacy of China, and Vice-President of the Chinese Society of International Law. She has written extensively on different issues of contemporary international law.

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Foreword

International law has always recognized that its basic principle of territorial integrity cannot completely safeguard a State from physical damage originating outside of its borders. The principal response of international law has been to impose responsibility on a State guilty of causing the damage and accordingly to require that State to desist from the conduct causing the damage, and in addition to accord adequate reparation to the injured State. These basic ideas, simple in conception and generally accepted, are the starting point of Dr. Xue's wide-ranging examination of the contemporary law and practice applicable to claims by a State for physical damage originating in or caused by other States.

In recent years this age-old subject has taken on new dimensions, as Dr. Xue's study amply demonstrates. New technology, industrial development, and population growth have vastly increased extra-territorial damage. Polluted waters, toxic wastes, oil spills, industrial accidents, and ozone gaps have challenged governments and the international legal system to seek remedies. The worldwide expressions of concern have not only called for international action; they have also sensitized national governments and their public to the need both for protective action and for the peaceful settlement of disputes, especially those that threaten violence. Dr. Xue does not reach for "pie in the sky" in her examination of issues and solutions. Her years of practical experience on behalf of her government and her participation in international meetings have given her a realistic understanding of the bond between territorial integrity and sovereignty. She is also aware, however, of the felt need to avoid inter-State conflict and to reach solutions that appear just and equitable. Her study is valuable to the international lawyer (and it is hoped senior government officials) for the various ways she enlists basic

legal concepts in developing her thesis of international liability. Simply reading the sub-headings of the first two parts shows the broad scope of this study and especially how basic juridical ideas are related to practical solutions. The elusive concept of due diligence is pinned down to specific procedural duties and their relation to substantive rights and obligations. The third chapter focuses on damage to the global commons. It is particularly enlightening on questions of *erga omnes* and legal standing in dispute settlement.

In Part IV Dr. Xue considers the normative and jurisprudential ideas underlying international liability. The idea of normativity itself is analyzed in a stimulating discussion of the “pull of law” as manifested in State behavior and cooperative undertakings. Always realistic, she reminds us in this respect of the countervailing self-interest of States in exercising sovereignty over their respective territories and deciding on the use and distribution of their own resources. The polarities and dialectic manifested in competing values are viewed by Dr. Xue as reinforcing each other in the quest for agreement – and thereby enriching the legal order.

A practical note is a discussion of “efficiency” in its dual meaning of capacity to produce results and its suitability for achieving the agreed end. Dr. Xue gives more specific meaning to this concept by drawing on cases and situations. A rather unexpected example of “efficiency” is her reference to the Chernobyl disaster and the fact that neighboring States which had suffered damage did not pursue claims of liability. Dr. Xue observes that this accorded with “efficiency” in that the urgent needs of the source country (Ukraine) were far greater than the damage in neighboring countries. This is a delicate point, and Dr. Xue is quick to disclaim the inference that a better-off country should not always be entitled to reparations for damage caused by a poor country, and she sensibly concludes that liability can only be a part of the economic response to unexpected damage.

“Fault” and “liability,” the two basic legal constructs of international responsibility, are examined in a broad perspective that takes account of the evolving domestic law toward strict liability for ultra-hazardous activities and the use of insurance to cover many risks. Dr. Xue remains cautious and pragmatic in noting that strict liability has limited acceptance in international law and (in her view) only applies when prescribed in treaties. However, she recognizes (and favors) strict liability in cases where the allocations of risk can be measured and calculated with reasonable accuracy. She also makes the important practical observation

that a financial mechanism (e.g. insurance) is probably essential to cope with rules of liability for accidental damage.

Written originally for a doctoral thesis, this book is nonetheless a “good read”; it is also intellectually stimulating and sensible in its practical suggestions. One need not be an international lawyer to appreciate its thoughtful examination of the relation of juridical concepts and the diverse political issues raised by inter-State physical damage. It is a work that will surely have a positive impact on future cases and legal solutions.

OSCAR SCHACHTER

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Past President, American Society of International Law

Preface and acknowledgments

It has taken me a number of years to complete this book, but for good reasons. In the early 1990s, when I began this project as my doctoral dissertation at the Columbia University School of Law, preparations for the United Nations Conference on Environment and Development were well under way. With many international actions being taken for the convening of the Conference, it was envisaged that international environmental law was likely to proliferate. In the years that followed, this anticipation proved far-sighted, as the numbers of new legal instruments on environmental protection were so overwhelming that it became difficult to keep pace with them. Although my research work had to be continually updated, these legal developments have greatly enriched my study on international liability for transboundary damage.

Meanwhile I had finished my residence requirement at Columbia Law School and returned to China, proceeding with the dissertation while working. As I was taking on greater responsibilities in the Legal Department of the Foreign Ministry, however, the project frequently had to give way to urgent office matters. After two years of hard work, I finally passed my oral defense in 1995 and set about revising the dissertation for publication. This book was therefore in part written in fulfillment of the requirements of my JSD degree at Columbia University School of Law. At this stage, developments in China led me to reflect on some of my original thinking on the study, particularly about the relationship between environment and development.

After seventeen years of rapid economic growth, China was faced with seriously deteriorating environmental conditions. In 1995, the Chinese Government formally adopted sustainable development as one of its two national guiding principles for social and economic advancement, attaching greater importance to environmental protection. This hard

experience demonstrated once again that environment and development must be dealt with hand in hand. The issue of international liability for transboundary damage in the final analysis is how to balance the interests between development need and environmental protection, between States with different priorities accorded to these two aspects and between the needs of individual States and the international community as a whole with regard to environment and development. Developed countries have realized their industrialization at the expense of the environment, while developing countries are left with fewer and tougher choices for a sustainable development. International law should endeavor to address both of these problems.

Throughout my study of this subject, I have received valuable guidance, advice, and support from my supervisors, three prominent scholars of international law at Columbia: Professors Oscar Schachter, Lori Damrosch, and David Leebron. Their dedication to law, devotion to professional excellence and personal integrity have always been a great inspiration for me. What they taught me goes well beyond this book. I wish to express my most sincere thanks to each one of them. I also greatly benefited from the advice of two of my former senior colleagues, who both served as members of the International Law Commission: Judge Jiurong Shi, Vice-President of the International Court of Justice, and Dr. Qizhi He, former Legal Counsel of the Foreign Ministry of China. Their insight on the subject of international liability for transboundary damage was most helpful and enlightening.

There are two other important figures to whom I would like to express my profound appreciation for their unfailing guidance in my professional development over more than twenty years: Professor Wang Tieya of Beijing University School of Law and Professor R. Randle Edwards of Columbia University School of Law. Without their constant encouragement and support, it would have been impossible for me to carry out my task to the end. My utmost gratitude also goes to Professor James Crawford of Cambridge University who gave me enormous help in the publication process. I was specially touched by his interest and sincerity in introducing different perspectives from developing countries on issues of contemporary international law.

I also wish to extend my heartfelt thanks to Ms. Catherine Siemann, a graduate student at Columbia University, for her time and efforts in improving the language of the manuscript, and to Ms. Khamla Pradaxay of the Columbia Law School Secretariat for her assistance in producing it. During the last editorial stage, when I needed library facilities and

materials to finalize the manuscript, Mr. Darren Peacock came to my help. His international law background and editing skills made his assistance especially valuable. I thank him most sincerely for the contribution he has made to the book.

Last but not the least, I would like to thank the Ford Foundation for its generous financial assistance for my study at Columbia. As a Ford Fellow, I appreciate very much the opportunity the Ford Foundation provides to scholars from developing countries, and the role it plays in promoting mutual understanding of different legal systems.

I feel extremely fortunate to have worked with these distinguished people. However, I should also make it clear that I alone assume all responsibility for any errors and mistakes that may be found in this book. Furthermore, the views expressed herein are entirely my own and do not in any way represent those of the institution for which I work.

List of treaties

Nuclear field

- Convention on Third Party Liability in the Field of Nuclear Energy (Paris, July 29, 1960) and Additional Protocol (Paris, January 28, 1964), 956 UNTS 251 and 335
- Convention Supplementary to the Paris Convention of July 29, 1960 on Third Party Liability in the Field of Nuclear Energy (Brussels, January 31, 1963), 2 ILM 685; amended by the additional Protocol of January 28, 1964 and the Protocol of November 16, 1982
- Agreement Between the Government of the Kingdom of the Netherlands and the Government of the United States of America on Public Liability for Damage Caused by the NS Savannah (The Hague, February 6, 1963), 487 UNTS 114
- Vienna Convention on Civil Liability for Nuclear Damage (Vienna, May 21, 1963), 1063 UNTS 265
- Convention on the Liability of Operators of Nuclear Ships, (Brussels, May 25, 1963), *American Journal of International Law*, vol. 57 (1963), p. 268
- Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water (Moscow, August 5, 1963), 480 UNTS 43
- Exchange of Notes Constituting an Agreement Between the United States of America and Ireland Relating to Public Liability for Damage Caused by the NS Savannah (Dublin, June 18, 1964), 530 UNTS 217
- Exchange of Notes Constituting an Agreement Between the United States of America and Italy Concerning Liability During

- Private Operation of NS Savannah (Rome, December 16, 1965),
 574 UNTS 139
- Convention Relating to Civil Liability in the Field of Maritime
 Carriage of Nuclear Material (Brussels, December 17, 1971), 974
 UNTS 255
- South Pacific Nuclear Free Zone Treaty (Rarotonga, August 6,
 1985), 1445 UNTS 177
- Convention on Assistance in the Case of a Nuclear Accident or
 Radiological Emergency (Vienna, September 26, 1986), 1457
 UNTS 133
- Convention on Early Notification of a Nuclear Accident (Vienna,
 September 26, 1986), 1439 UNTS 275
- Joint Protocol Relating to the Application of the Vienna
 Convention on Civil Liability for Nuclear Damage and
 the Paris Convention on Third Party Liability in the Field
 of Nuclear Energy (Vienna, September 21, 1988), 1672
 UNTS 301
- Comprehensive Nuclear Test-Ban Treaty, 35 ILM 1439 (1996)
- Convention on Supplementary Compensation for Nuclear Damage
 (Vienna, September 29, 1997), IAEA INFCIRC/567 of July 22, 1998
- Protocol to Amend the Vienna Convention on Civil Liability for
 Nuclear Damage (Vienna, September 29, 1997), IAEA
 INFCIRC/566 of July 22, 1998

Air space and outer space

- Convention for the Settlement of Difficulties Arising from
 Operation of Smelter at Trail, British Columbia (Ottawa, April
 15, 1935), US Treaty Series No. 893
- Chicago Convention on International Civil Aviation (Chicago,
 December 7, 1944), 15 UNTS 295
- Convention Relating to Damage Caused by Foreign Aircraft
 to Third Parties on the Surface (Rome, October 7, 1952), 310
 UNTS 181
- United Nations Declaration of Legal Principles Governing the
 Activities of States in the Exploration and Use of Outer Space
 (December 16, 1963), UN Doc. A/RES/1962 (XVIII); 3 ILM 157
 (1964)

- Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies (Moscow, London, and Washington, January 27, 1967), 610 UNTS 205
- Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (London, Moscow, and Washington, April 22, 1968), 672 UNTS 119
- Convention on International Liability for Damage Caused by Space Objects, (London, Moscow, and Washington, March 29, 1972), 961 UNTS 187
- Convention on Registration of Objects Launched into Outer Space (New York, November 12, 1974), 1023 UNTS 15
- Exchange of Notes Constituting an Agreement Between the United States of America and Canada Relating to Liability for Loss or Damage from Certain Rocket Launches (1975), 992 UNTS 98–99
- Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (New York, December 5, 1979), 1363 UNTS 21
- ECE Convention on Long-Range Transboundary Air Pollution (1979), 18 ILM 1442
- Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on Long-Term Financing of the Co-operative Programme for Monitoring and Evaluation of the Long-Range Transmission of Air Pollutants in Europe (Geneva, September 28, 1984), 1491 UNTS 167
- Vienna Convention for the Protection of the Ozone Layer (Vienna, March 22, 1985), 1513 UNTS 323
- Montreal Protocol on Substances That Deplete the Ozone Layer (Montreal, September 16, 1987), 1522 UNTS 451
- Convention on Environmental Impact Assessment in Transboundary Context (Espoo, February 25, 1991), 30 ILM 800 (1991); Doc. E/ECE/1250
- United Nations Framework Convention on Climate Change (New York, May 9, 1992), 1771 UNTS 107
- Kyoto Protocol to the United Nations Framework Convention on Climate Change (Kyoto, December 11, 1997), UN Doc. FCCC/CP/1997/7/Add.1

Aarhus Protocol to the 1979 Convention on Long-Range
 Transboundary Air Pollution on Persistent Organic Pollutants
 (POPs) (Aarhus, June 24, 1998), 37 ILM 505 (1998)

Maritime area

International Convention for the Prevention of Pollution of
 the Sea by Oil (London, May 12, 1954), 327 UNTS 3, and its
 amendments of 1962 and 1969, which were superseded
 by the International Convention for the Prevention of
 Pollution from Ships (London, November 2, 1973), 1340
 UNTS 18

International Convention Relating to the Limitation of the
 Liability of Owners of Seagoing Ships (Brussels, October 10,
 1957), in Singh, *International Maritime Law Conventions*,
 p. 2967

Convention on the High Seas (Geneva, April 29, 1958), 450
 UNTS 11

International Regulations for Preventing Collisions at Sea (1960),
 UKTS (1996) No. 23; TIAS No. 5813

International Convention for the Safety of Life at Sea (1960), 536
 UNTS 27

International Convention on Civil Liability for Oil Pollution
 Damage (Brussels, November 29, 1969), 973 UNTS 3

International Convention Relating to Intervention on the High
 Seas in Cases of Oil Pollution Casualties (Brussels, November
 29, 1969), 970 UNTS 211

International Convention on the Establishment of an
 International Fund for Compensation for Oil Pollution Damage
 (Brussels, December 18, 1971), 1110 UNTS 57; three protocols
 adopted respectively in 1976, 1984, and 1992

Treaty on the Prohibition of the Emplacement of Nuclear
 Weapons and Other Weapons of Mass Destruction on the
 Sea-bed and the Ocean Floor and in the Subsoil Thereof
 (London, Moscow, and Washington, February 1, 1971), 955
 UNTS 115

Convention for the Prevention of Marine Pollution by Dumping
 from Ships and Aircraft (Oslo, February 15, 1972), 932 UNTS 3,
 Kiss, *Selected Multilateral Treaties*, No. 52, p. 266

- Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London, November 13, 1972), 1046 UNTS 120
- Protocol Relating to Intervention on the High Seas in Case of Marine Pollution by Substances Other Than Oil (London, November 2, 1973), 1313 UNTS 3, *UN Juridical Yearbook* (1973), p. 91
- Convention for the Prevention of Marine Pollution from Land-Based Sources (Paris, June 4, 1974), 1546 UNTS 119
- Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki, March 22, 1974), 1507 UNTS 167
- Convention for the Protection of the Mediterranean Sea Against Pollution (Barcelona, February 16, 1976), 15 ILM 290
- Convention on Limitation of Liability for Maritime Claims (London, November 19, 1976), 1456 UNTS 221
- Convention on Civil Liability for Oil Pollution Damage Resulting from Exploration for and Exploitation of Seabed Mineral Resources (London, December 17, 1976), 16 ILM 1450
- Regional Convention for Cooperation on the Protection of the Marine Environment from Pollution (Kuwait, April 24, 1978), 1140 UNTS 154
- Protocol for the Protection of the Mediterranean Sea Against Pollution from Land-Based Sources (Athens, May 17, 1980), 19 ILM 869
- Agreement on Regional Cooperation in Combating Pollution of the South-East Pacific by Hydrocarbons or Other Harmful Substances in Cases of Emergency (Lima, November 12, 1981), Rummel-Bulska and Osafo, *Selected Multilateral Treaties*, p. 134
- Convention for the Protection of the Marine Environment and Coastal Areas of the South-East Pacific (Lima, November 12, 1981), UNEP/CPPS/IG/32/4
- Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment (Jeddah, February 14, 1982) Rummel-Bulska and Osafo, *Selected Multilateral Treaties*, p. 144
- Protocol Concerning Regional Cooperation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency (Jeddah, February 14, 1982), *International Environmental Legal Materials and Treaties* 982, p. 14

- Protocol Concerning Mediterranean Specially Protected Areas
 (Geneva, April 3, 1982), 1425 UNTS 160
- United Nations Convention on the Law of the Sea (Montego Bay,
 December 10, 1982), 1833 UNTS 396
- Protocol Concerning Cooperation in Combating Oil Spills in the
 Wider Caribbean Region (Cartagena de Indias, March 24, 1983),
 22 ILM 240
- Convention for the Protection and Development of the Marine
 Environment of the Wider Caribbean Region (Cartagena de
 Indias, March 24, 1983), 1506 UNTS 157
- Supplementary Protocol to the Agreement on Regional
 Cooperation in Combating Pollution of the South-East Pacific
 by Hydrocarbons or other Harmful Substances in Cases of
 Emergency (Quito, July 22, 1983), Rummel-Bulska and Osafo,
Selected Multilateral Treaties, p. 137
- Agreement for Cooperation in Dealing with Pollution of the
 North Sea by Oil and Other Harmful Substances (Bonn,
 September 13, 1983), Misc. 26 (1983) 9104, Rummel-Bulska and
 Osafo, *Selected Multilateral Treaties*, p. 268
- International Convention on Oil Pollution Preparedness,
 Response, and Cooperation (London, November 30, 1990), 1891
 UNTS 77
- Convention for the Protection of the Marine Environment of the
 North-East Atlantic (Paris, September 22, 1992), 32 ILM 1069
 (1993)
- Protocol on Cooperation in Combating Pollution of the
 Black Sea Marine Environment by Oil and other Harmful
 Substances in Emergency Situations (1992), 1764 UNTS 24 (1994)
- Protocol on the Protection of the Black Sea Marine Environment
 Against Pollution by Dumping (1992), 1764 UNTS 27
 (1994)
- Protocol on Protection of the Black Sea Marine Environment
 Against Pollution from Land-Based Sources (1992), 1764 UNTS
 18 (1994)
- Protocol to the 1969 International Convention on Civil Liability
 for Oil Pollution Damage (1992), 973 UNTS 3
- Protocol to the International Convention on the Establishment of
 an International Fund for Compensation for Oil Pollution
 Damage (1992), 1110 UNTS 57

- Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki, April 9, 1992)
- Convention on the Protection of the Black Sea Against Pollution (Bucharest, April 21, 1992), 1764 UNTS 3
- Protocol for the Protection of the Mediterranean Sea Against Pollution from Offshore Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil (Madrid, October 14, 1994)
- Protocol for the Prevention of Pollution of the Mediterranean Sea by Transboundary Movements of Hazardous Wastes and Their Disposal (1996), in Cubel, "Transboundary Movements," p. 461
- Protocol to the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (1996), 36 ILM 1

Polar regions

- Antarctic Treaty (Washington, 1 December 1959), 402 UNTS 71
- Convention on the Regulation of Antarctic Mineral Resource Activities (Wellington, June 2, 1988), 27 ILM 868
- Protocol on Environmental Protection to the Antarctic Treaty (Madrid, October 4, 1991), 30 ILM 1460, and Annexes

International transportation

- Additional Convention to the 1970 International Convention Concerning the Carriage of Passengers and Luggage by Rail (CIV) of February 25, 1961, Relating to the Liability of the Railway for Death of and Personal Injury to Passengers (Bern, February 26, 1966) Protocol B (Bern, February 26, 1966), and Protocol I (Bern, October 22, 1971), 1101 UNTS 94
- Athens Convention Relating to the Carriage of Passengers and Their Luggage by Sea (Athens, December 13, 1974), 1463 UNTS 19
- Consolidated Text of the Convention Concerning International Carriage by Rail (COTIF) (Berne, May 9, 1980), 1397 UNTS 76

Chemical and other toxic and hazardous substances

- Agreement Concerning the International Commission for the Protection of the Rhine Against Pollution (June 13, 1965), in Kiss, *Selected Multilateral Treaties*, No. 29, p. 176
- European Agreement on the Restriction of the Use of Certain Detergents in Washing and Cleaning Products (Strasbourg, September 16, 1968), 788 UNTS 181
- Convention for the Protection of the Rhine Against Chemical Pollution (Bonn, December 3, 1976), 16 ILM 242
- Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Basel, March 22, 1989), 1673 UNTS 125
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- Treaty Relating to Boundary Waters and Questions Arising Along the Boundary Between the US and Canada (Washington, January 11, 1909), TS No. 548

- Treaty Relating to the Utilization of the Waters of the Colorado and Tijuana Rivers, and of the Rio Grande (Rio Bravo), from Fort Quitman, Texas, to the Gulf of Mexico (Washington, February 3, 1944), and Supplementary Protocol (Washington, November 14, 1944), 3 UNTS 313
- Agreement Concerning Frontier Watercourses (Helsinki, April 24, 1964), 537 UNTS 231
- Treaty Concerning the Rio de la Plata and the Corresponding Maritime Boundary (Montevideo, November 19, 1973), 1295 UNTS 306
- Treaty Concerning the Construction and Operation of the Gabčíkovo-Nagymaros System of Locks (Budapest, September 16, 1977), 1109 UNTS 235
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June 5–16, 1972), 11 ILM 1416 (1972)
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- Trail Smelter Arbitration (United States v. Canada)*, RIAA, vol. III (1938, 1941), p. 1905
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- Union Carbide Corp. v. Union of India and Others* (1989) 3 SCC 38
- United States v. Exxon Corp.*, 2 Oil Spill Litigation News (Litigations Reporting Service), p. 1048

Abbreviations

1935 Convention	1935 Convention for the Settlement of Difficulties Arising from Operation of Smelter at Trail, BC
1977 Liability Convention	1977 Convention on Civil Liability for Oil Pollution Damage Resulting from Exploration for and Exploitation of Seabed Mineral Resources
1977 Treaty	Treaty Concerning the Construction and Operation of the Gabčíkovo-Nagymaros System of Locks
Antarctic Mineral Resource Convention	1988 Convention on the Regulation of Antarctic Mineral Resource Activities
Articles on State Responsibility	ILC's Articles on Responsibility of States for Internationally Wrongful Acts, 2001
ATCM	Antarctic Treaty Consultative Meeting
Basel Convention	1989 Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal
Brussels Convention	1968 EC Convention on Jurisdiction and Enforcement of Judgments in Civil and Commercial Matters
CH ₄	Methane
CO ₂	Carbon dioxide
COPUOS	United Nations Committee on the Peaceful Uses of Outer Space
CRTD	1989 ECE Convention on Civil Liability for Damage Caused During Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels

ECE	Economic Commission for Europe
Fund Convention	1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage
HCFCs	hydrochlorofluorocarbons
HFCs	hydrofluorocarbons
HNS Convention	1996 International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea
HNS Fund	International Hazardous and Noxious Substances Fund
ILC	International Law Commission
ILM	<i>International Legal Materials</i>
IPCC	Intergovernmental Panel on Climate Change
London Dumping Convention	1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter
N ₂ O	nitrous oxide
OECD	Organization for Economic Cooperation and Development
Lugano Convention	1993 Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment
Oil Pollution Liability Convention	1969 International Convention on Civil Liability for Oil Pollution Damage
Outer Space Principles Treaty	1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies
Paris Convention	1960 Convention on Third Party Liability in the Field of Nuclear Energy
Partial Test Ban Treaty	1963 Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water
PFCs	perfluorocarbons
Rio Conference	1992 United Nations Conference on Environment and Development
SDR	Special Drawing Right
SF ₆	sulphur hexafluoride

xxx LIST OF ABBREVIATIONS

Space Liability Convention	1972 Convention on International Liability for Damage Caused by Space Objects
UN International Watercourse Convention	1997 United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses
UNCED	United Nations Conference on Environment and Development
Vienna Convention	1963 Vienna Convention on Civil Liability for Nuclear Damage
WARC	World Administrative Radio Conference
WHO	World Health Organization