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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Transboundary Damage in International Law

Xue Hanqin
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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.

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Professor Emeritus of International Law & Diplomacy, Columbia University
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 Jiulong 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
Preface and Acknowledgments

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Preface and Acknowledgments

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**


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


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
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 (XVII); 3 ILM 157 (1964)

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 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


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


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

**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


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


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


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


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


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-Bulsk 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-Bulsk and Osafo, Selected Multilateral Treaties, p. 268

International Convention on Oil Pollution Preparedness, Response, and Cooperation (London, November 30, 1990), 1891 UNTS 77


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 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)

Polar regions
Antarctic Treaty (Washington, 1 December 1959), 402 UNTS 71
Protocol on Environmental Protection to the Antarctic Treaty (Madrid, October 4, 1991), 30 ILM 1460, and Annexes

International transportation
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

ECE Convention on Civil Liability for Damage Caused During Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels (Geneva, October 10, 1989), UN Doc. ECE/TRANS/79, UN Sales No. E.90.11.E.39 (1990)

Fourth Lomé Convention (Lomé, December 15, 1989), 29 ILM 783


Convention on the Transboundary Effects of Industrial Accidents (Helsinki, March 17, 1992), 31 ILM 1330 (1992)

Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment (Lugano, June 21, 1993), 32 ILM 1228 (1993)


**International waters**


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

Agreement Between the United States of America and Canada on Great Lakes Water Quality (1978), 837 UNTS 213, 1153 UNTS 187; Can. TS 1978/20

Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki, March 17, 1992), 31 ILM 1312 (1992)

Special Agreement for Submission to the International Court of Justice of the Differences Concerning the Gabčíkovo-Nagymaros Project (Brussels, April 7, 1993), 1725 UNTS 225


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Agreement Concerning the Regime on the Polish–Soviet State Frontier (Moscow, July 8, 1948), 37 UNTS 25

Treaty Between Czechoslovakia and Hungary Concerning the Regime of State Frontiers (Prague, October 13, 1956), 300 UNTS 125


Stockholm Declaration on the Human Environment (Stockholm, June 5–16, 1972), 11 ILM 1416 (1972)

Convention on the Prohibition of Military or any Other Hostile Use of Environmental Modification Techniques (December 10, 1976), 1108 UNTS 151

ASEAN Agreement on the Conservation of Nature and Natural Resources (Kuala Lumpur, July 9, 1985), Rummel-Bulska and Osafo, Selected Multilateral Treaties, p. 343

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Grant v. Australian Knitting Mills Ltd and Others [1936] AC 85

Gut Dam Case (United States of America v. Canada), 8 ILM 118 (1969)

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Nasser Esphahanian v. Bank Tejarat, 2 Iran-US CTR, p. 157


Nottebohm Case, ICJ Reports (1955), p. 4


Rylands v. Fletcher, (1865) 3 H&C 774; (1868) LR 3 HL 330

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Union Carbide Corp. Gas Plant Disaster, Re, 634 F. Supp. 842 (SDNY 1986)

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
Articles on State Responsibility ILC’s Articles on Responsibility of States for Internationally Wrongful Acts, 2001
ATCM Antarctic Treaty Consultative Meeting
Brussels Convention 1968 EC Convention on Jurisdiction and Enforcement of Judgments in Civil and Commercial Matters
CH4 Methane
CO2 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
**LIST OF ABBREVIATIONS**

ECE Economic Commission for Europe

Fund 1971 International Convention on the

Convention 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 International Legal Materials

IPCC Intergovernmental Panel on Climate Change


Dumping Pollution by Dumping of Wastes and Other Matter

Convention

N₂O nitrous oxide

OECD Organization for Economic Cooperation and

Development

Lugano 1993 Convention on Civil Liability for Damage

Resulting from Activities Dangerous to the

Environment

Oil Pollution Liability 1969 International Convention on Civil Liability

for Oil Pollution Damage

Convention

Outer Space 1967 Treaty on Principles Governing the Activities

Principles of States in the Exploration and Use of Outer

Treaty Space, Including the Moon and Other Celestial

Bodies

Paris 1960 Convention on Third Party Liability in the

Convention Field of Nuclear Energy

Partial Test Ban 1963 Treaty Banning Nuclear Weapon Tests in the

Treaty Atmosphere, in Outer Space and Under Water

PFCs perfluorocarbons


and Development

SDR Special Drawing Right

SF₆ sulphur hexafluoride
<table>
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<th>Abbreviation</th>
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<td>International Watercourse Convention</td>
<td>United Nations Conference on Environment and Development</td>
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<td>WARC</td>
<td>World Administrative Radio Conference</td>
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