

International Max Planck Research School (IMPRS) for Maritime
Affairs at the University of Hamburg

Jan Albers

Responsibility and Liability in the Context of Transboundary Movements of Hazardous Wastes by Sea

Existing Rules and the 1999 Liability Protocol
to the Basel Convention

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Protocol to the Basel Convention

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*Realism should not imply resignation.*¹

¹ English translation of: “Realismus darf nicht zu Resignation führen.” Kunig, *Reform der Charta der Vereinten Nationen*, in: Albrecht (ed.) (1998), at 156.

Preface

This study was accepted as a doctoral dissertation by the University of Hamburg in summer 2013. The topic originated from a suggestion of my doctoral advisor *Professor Dr. Rainer Lagoni*, former Director of the Institute of the Law of the Sea and of Maritime Law at the University of Hamburg. For his inspiring advice, critical feedback and constant support throughout the entire time of my research I am most grateful and deeply indebted to him. I would further like to thank *Professor Dr. Dr. h.c. Peter Ehlers* for his second opinion on my dissertation and his very valuable comments.

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My deepest gratitude goes to *Nadja*. She supported me most and suffered most. Without her backing and untiring patience, I would have lacked the strength to make this book a reality.

This book is written in remembrance of my father *Dieter*.

Hamburg, March 2014

Jan Albers

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Abbreviations

ADN	European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement Concerning the International Carriage of Dangerous Goods by Road
AHWG	Ad Hoc Working Group of Legal and Technical Experts to Consider and Develop a Draft Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal
ACP Group	African, Caribbean, and Pacific Group of States
<i>Acta Jur.</i>	<i>Acta Juridica</i>
add.	addendum
<i>Afr. J. Int'l & Comp. L.</i>	<i>African Journal of International and Comparative Law</i>
AJIL	<i>American Journal of International Law</i>
<i>Am. U. J. Int'l L. & Pol'y</i>	<i>American University Journal of International Law and Policy</i>
<i>Ann. Dr. Mar. Océanique</i>	<i>Annuaire de Droit Maritime et Oceanique</i>
ArchVR	<i>Archiv des Völkerrechts</i>
AU	African Union
BAN	Basel Action Network
BDGVR	<i>Berichte der Deutschen Gesellschaft für Völkerrecht</i>
<i>Buff. L. Rev.</i>	<i>Buffalo Law Review</i>
BYIL	<i>British Year Book of International Law</i>
<i>Cath. U. L. Rev.</i>	<i>Catholic University Law Review</i>
CILSA	<i>Comparative and International Law Journal of Southern Africa</i>

CLC	International Convention on Civil Liability for Oil Pollution Damage
<i>Colo. J. Int'l Envtl. L. & Pol'y</i>	<i>Colorado Journal of International Environmental Law and Policy</i>
<i>Colum. J. Envtl. L.</i>	<i>Columbia Journal of Environmental Law</i>
<i>Colum. J. Transnat'l L.</i>	<i>Columbia Journal of Transnational Law</i>
conf.	Conference
COP[no.]	Conference of the Parties to the Basel Convention, indicating its respective meeting
COTIF Convention	Convention Concerning International Carriage by Rail
CRTD Convention	Convention on Civil Liability for Damage Caused During Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels
<i>Delhi L. Rev.</i>	<i>Delhi Law Review</i>
<i>Denv. J. Int'l L. & Pol'y</i>	<i>Denver Journal of International Law and Policy</i>
DGR	Dangerous Goods Code
<i>Dick. J. Int'l L.</i>	<i>Dickinson Journal of International Law</i>
<i>Dir. Marit.</i>	<i>Il Diritto Marittimo</i>
doc.	document
<i>DVIS, Reihe A</i>	<i>Schriften des Deutschen Vereins für Internationales Seerecht : Reihe A: Berichte und Vorträge</i>
e.g.	exempli gratia [for example]
EC	European Commission
<i>Ecology L. Q.</i>	<i>Ecology Law Quarterly</i>
ed. (eds.)	edition/editor (editors)
EEA	European Environment Agency
EEZ	Exclusive Economic Zone
<i>EJIL</i>	<i>European Journal of International Law</i>
<i>Emory Int'l L. Rev.</i>	<i>Emory International Law Review</i>
<i>Env't Sci. & Tech.</i>	<i>Environmental Science & Technology</i>
<i>Envtl. L.</i>	<i>Environmental Law</i>
<i>Envtl. Pol'y & L.</i>	<i>Environmental Policy and Law</i>
ESM	Environmentally Sound Management
et al.	et aliae [and others]
et seq.	et sequens [and the following one/ones]
etc.	et cetera
EU	European Union
EU15/25/27	European Union, at the time when it consists of the indicated number of Member States
EUR	Euro
<i>Eur. Envtl. L. Rev.</i>	<i>European Environmental Law Review</i>
FAZ	<i>Frankfurter Allgemeine Zeitung</i>
<i>Fla. J. Int'l L.</i>	<i>Florida Journal of International Law</i>

Fund Convention	International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage
<i>Ga. J. Int'l. & Comp. L.</i>	<i>Georgia Journal of International and Comparative Law</i>
GATT	General Agreement on Tariffs and Trade
GBP	Great Britain pound sterling
<i>Geo. Int'l Env'tl. L. Rev.</i>	<i>Georgetown International Environmental Law Review</i>
<i>GYIL</i>	<i>German Yearbook of International Law</i>
<i>Hague Y. B. Int'l L.</i>	<i>Hague Yearbook of International Law</i>
<i>Harv. Int'l L. J.</i>	<i>Harvard International Law Journal</i>
HCR	Human Rights Council of the General Assembly to the United Nations
<i>HKLJ</i>	<i>Hong Kong Law Journal</i>
HNS	Hazardous and Noxious Substances
HNS Convention	International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea
i.e.	id est [that is]
IATA	International Air Transport Association
IBCs	Intermediate Bulk Containers
ibid.	ibidem [in the same place]
ICAO	International Civil Aviation Organization
ICC	International Chamber of Commerce
ICJ	International Court of Justice
<i>ICJ Reports</i>	<i>International Court of Justice Reports of Judgments, Advisory Opinions and Orders</i>
IGO	Intergovernmental Organisation
<i>IJMCL</i>	<i>International Journal of Marine and Coastal Law</i>
ILC	International Law Commission
<i>ILM</i>	<i>International Legal Materials</i>
ILO	International Labour Organization
IMCO	Inter-Governmental Maritime Consultative Organization
IMDG Code	International Maritime Dangerous Goods Code
IMO	International Maritime Organization
INCOTERMS	International Commercial Terms
<i>Ind. Int'l & Comp. L. Rev.</i>	<i>Indiana International & Comparative Law Review</i>
<i>Ind. J. Global Legal Studies</i>	<i>Indiana Journal of Global Legal Studies</i>
<i>Int'l & Comp. L. Q.</i>	<i>International and Comparative Law Quarterly</i>
<i>Int'l Comm. L. Rev.</i>	<i>International Community Law Review</i>

<i>Int'l J. Hum. Rts.</i>	<i>International Journal of Human Rights</i>
<i>Int'l Law.</i>	<i>International Lawyer</i>
<i>Int'l Rev. L. & Econ.</i>	<i>International Review of Law and Economics</i>
IOPC	International Oil Pollution Compensation
ISA	International Seabed Authority
ITLOS	International Tribunal for the Law of the Sea
<i>ITLOS Reports</i>	<i>International Tribunal for the Law of the Sea Reports of Judgments, Advisory Opinions and Orders</i>
<i>J. Env. & Dev.</i>	<i>Journal of Environment & Development</i>
<i>J. Environ. Econ. Manage.</i>	<i>Journal of Environmental Economics and Management</i>
<i>J. Envtl. L.</i>	<i>Journal of Environmental Law</i>
<i>J. L. & Econ.</i>	<i>Journal of Law and Economics</i>
<i>J. Nat. Resources & Envtl. L.</i>	<i>Journal of Natural Resources & Environmental Law</i>
<i>J. W. T.</i>	<i>Journal of World Trade</i>
<i>JIML</i>	<i>Journal of International Maritime Law</i>
ldt	Light displacement ton
<i>LHD</i>	<i>Legal Hukuk Dergisi</i>
LLMC Convention	Convention on Limitation of Liability for Maritime Claims
<i>LMCLQ</i>	<i>Lloyd's Maritime and Commercial Law Quarterly</i>
LNG	Liquefied Natural Gas
LOF 2000	Lloyd's Standard Form of Salvage Agreement of 2000
<i>Loy. L. A. Int'l & Comp. L. J.</i>	<i>Loyola of Los Angeles International and Comparative Law Journal</i>
LPG	Liquefied Petroleum Gas
LWG	Legal Working Group of the Basel Convention
M/V	Motor Vessel
<i>Mar. Pol'y</i>	<i>Marine Policy</i>
MARPOL 73/78 Convention	International Convention for the Prevention of Pollution from Ships
<i>Max Planck YBUNL</i>	<i>Max Planck Yearbook of United Nations Law</i>
MEAs	Multilateral Environmental Agreements
MEGCs	Multiple-Element Gas Containers
MOP	Meeting of the Parties to the Basel Protocol
<i>Multinatl. Monit.</i>	<i>Multinational Monitor</i>
<i>N. Y. U. J. Int'l. L. & Pol.</i>	<i>New York University Journal of International Law & Politics</i>
NGOs	Non-Governmental Organisations
no.	Number
<i>Nord. J. Intl. L.</i>	<i>Nordic Journal of International Law</i>

NUCLEAR Convention	Convention Relating to Civil Liability in the Field of Maritime Carriage of Nuclear Material
<i>NuR</i>	<i>Natur und Recht</i>
<i>NYIL</i>	<i>Netherlands Yearbook of International Law</i>
OAU	Organisation of African Unity
OBO-carrier	Cargo vessel carrying oil, bulk and ore cargos
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
OECD	Organisation for Economic Co-operation and Development
OEWG	Open-ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal
OILPOL Convention	International Convention for the Prevention of Pollution of the Sea by Oil
OPRC Convention	International Convention on Oil Pollution Preparedness, Response and Cooperation
OPRC-HNS Protocol	Protocol on Preparedness, Response and Cooperation to Pollution Incidents by Hazardous and Noxious Substances
OSPAR Convention	Convention for the Protection of the Marine Environment of the North-East Atlantic
<i>Österr. Z. öffentl. Recht</i>	<i>Österreichische Zeitschrift für öffentliches Recht und Völkerrecht</i>
p.	Page
p.a.	Per annum [per year]
para.	Paragraph/paragraphs
PCBs	Polychlorinated Biphenyls
PCIJ	Permanent Court of International Justice
<i>PCIJ Series A</i>	<i>Permanent Court of International Justice Series A: Judgments and Orders</i>
<i>PCIJ Series A/B</i>	<i>Permanent Court of International Justice Series A/B: Collection of Judgments, Orders and Advisory Opinions</i>
PCTs	Polychlorinated Terphenyls
PIC	Prior Informed Consent
PIF	Pacific Island Forum
<i>Polish Y. B. Int'l L.</i>	<i>Polish Yearbook of International Law</i>
POPs	Persistent Organic Pollutants
pp.	Pages
<i>RabelsZ</i>	<i>Rabel Journal of Comparative and International Private Law</i>
<i>RdC</i>	<i>Recueil des Cours</i>

<i>RECIEL</i>	<i>Review of European Community and International Environmental Law</i>
res.	Resolution
<i>Resour. Conserv. Recycl.</i>	<i>Resources, Conservation and Recycling</i>
<i>Rev. Int. Econ.</i>	<i>Review of International Economics</i>
RIAA	<i>Reports of International Arbitral Awards</i>
S.S.	Steam Ship
SCOPIIC	Special Compensation P&I Clause
SDR	Special Drawing Rights
<i>SIMPLY</i>	<i>Scandinavian Institute of Maritime Law Yearbook</i>
SOLAS Convention	International Convention for the Safety of Life at Sea
<i>Stan. J. Int'l L.</i>	<i>Stanford Journal of International Law</i>
<i>Suffolk Transnat'l L. Rev.</i>	<i>Suffolk Transnational Law Review</i>
<i>Temp. Envtl. L. & Tech. J.</i>	<i>Temple Environmental Law & Technology Journal</i>
transl.	Translated
TOR	Terms of Reference of the Mechanism for Promoting Implementation and Compliance with the Basel Convention
<i>Tul. Envtl. L. J.</i>	<i>Tulane Environmental Law Journal</i>
<i>Tul. J. Int'l & Comp. L.</i>	<i>Tulane Journal of International and Comparative Law</i>
<i>TWQ</i>	<i>Third World Quarterly</i>
<i>UCLA J. Envtl. L. & Pol'y</i>	<i>UCLA Journal of Environmental Law & Policy</i>
UN	United Nations
UNCC	United Nations Compensation Commission
UNCLOS	United Nations Convention for the Law of the Sea
UN-ECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNGA	General Assembly of the United Nations
<i>Unif. L. Rev.</i>	<i>Uniform Law Review</i>
<i>UPR</i>	<i>Umwelt- und Planungsrecht</i>
USA/US	United States of America
USD	United States dollar
USSR	Union of Soviet Socialist Republics
v.	Versus
<i>V and. J. Transnat'l L.</i>	<i>Vanderbilt Journal of Transnational Law</i>
<i>VersR</i>	<i>Versicherungsrecht</i>
<i>VRÜ</i>	<i>Verfassung und Recht in Übersee</i>
<i>Vt. L. Rev.</i>	<i>Vermont Law Review</i>

<i>Wm. & Mary Envtl. L. & Pol'y Rev.</i>	<i>William and Mary Environmental Law and Policy Review</i>
<i>WTAM</i>	<i>World Trade and Arbitration Materials</i>
<i>WTO</i>	World Trade Organization
<i>WWF</i>	World Wildlife Fund
<i>Yale J. Int'l L.</i>	<i>Yale International Journal of International Law</i>
<i>Yb. Int'l Env. L.</i>	<i>Yearbook of International Environmental Law</i>
<i>YBICED</i>	<i>Yearbook of International Co-operation on Environment and Development</i>
<i>YBILC</i>	<i>Yearbook of the International Law Commission</i>
<i>ZaöRV</i>	<i>Zeitschrift für ausländisches öffentliches Recht und Völkerrecht</i>
<i>ZUR</i>	<i>Zeitschrift für Umweltrecht</i>

Chapter 1

Introduction

In December 1999, in the wake of the 5th Conference of the Parties to the Basel Convention held in Basel, Switzerland, the then Executive Director of the United Nations Environmental Programme (UNEP), *Klaus Töpfer*, praised the recent adoption of the Basel Protocol on Liability and Compensation¹ as a “major breakthrough”.² He claimed that “[f]or the first time, we have a mechanism for assigning responsibility for damage caused by accidental spills of hazardous waste during export or import”. However, it did not take long before voices were being raised that cast a rather poor light on the Basel Protocol. The Protocol was criticised by legal scholars as being “far from perfect and in many respects [...] unclear and confusing”.³ Others used even stronger language: “The Liability Protocol is [...] a text with as many holes and exclusions as Swiss cheese” and “[it] is a dangerous precedent and is unlikely to ever, provide adequate relief for victims of toxic waste or serve as an incentive to avoid hazardous waste trafficking”.⁴ Similarly, it was charged that “the treaty offers very little that is positive and much that is highly negative”, and, “[w]hat was adopted in Basel in 1999 [...] represents a successful attack on the Basel Convention’s own fundamental principles and a dangerous international precedent”.⁵ By means of this juxtaposition the nature of the major burden facing the Basel Protocol becomes plainly apparent: Diverging political, commercial and environmental interests put high requirements on a legal regime governing civil liability for damage resulting from the

¹ Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and Their Disposal (to the Basel Convention) of 10 December 1999.

² Quoted from UNEP, press release of 14 December 1999, ‘Compensation and Liability Protocol Adopted by Basel Convention on Hazardous Wastes’.

³ Tsimplis, ‘The 1999 Protocol to the Basel Convention’, 16 *IJMCL* (2001), at 296.

⁴ Kevin Stairs, political adviser with Greenpeace International, as quoted from Basel Action Network, press release of 10 December 1999, ‘Hazardous Waste Agreement on Liability Protocol Reached at Basel Conference of Parties’.

⁵ Sharma, ‘The Basel Protocol’, 26 *Delhi L. Rev.* (2004), at 196.

transboundary movement of hazardous wastes, and these can hardly be met by a compromise regulation as represented by the 1999 Basel Protocol.

The Basel Protocol on Liability and Compensation was adopted in 1999 to supplement the legal framework established by the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal and to provide for rules imposing civil liability and making compensation available for the victims of pollution caused by hazardous wastes. The Basel Protocol, however, has yet not entered into force, and keeping in mind the harsh criticisms as outlined above, it is also questionable whether it will ever receive sufficient support from States to obtain the required number of ratifications in order to enter into force.

The present work starts exactly at this juncture. Its primary purpose is to outline the legal rules and regimes applicable for the imposition of responsibilities and liabilities for damage resulting from the transboundary movement of hazardous wastes by sea. Given the fact that the entry into force of the Basel Protocol is uncertain, it is necessary that this work begins with an analysis of responsibility and liability according to the rules of customary international law and according to the regulations of international conventions and regulations that are currently in force and applicable to the cases under consideration. The prospective regime of liability and compensation as proposed by the Basel Protocol can only be examined in detail in a second step, which may then illuminate the possible advantages and disadvantages of this potential solution *de lege ferenda*. As a result of this consideration it will be possible to make a recommendation whether it seems appropriate to agree with *Klaus Töpfer* and to further expedite and promote ratification of the Basel Protocol, or whether the criticisms voiced against the Protocol are actually true and efforts should rather be made to develop and strengthen other mechanisms to protect victims of pollution and the environment.

A. The Factual Perspective: Transboundary Movements of Hazardous Wastes by Sea

The transboundary movement of hazardous wastes represents a commercial activity promising huge returns for the persons engaged in the movement. On the downside, hazardous waste movements may pose a substantial threat for human health and the environment. Since, moreover, hazardous wastes are usually shipped in large amounts, incidents involving hazardous wastes are likely to affect large areas with adverse effects on a potentially large number of humans, animals and natural resources. The fact that incidents may occur during each stage of a transboundary movement of hazardous wastes by sea can be illustrated in the following examples⁶:

⁶ It should be added, though, that the facts of the following cases have not been officially established. These cases are depicted as far as they are described in publicly assessable articles and contributions to newspapers and journals.

The *M/V “Khian Sea”* case⁷: In 1986 the city of Philadelphia in Pennsylvania (USA) instructed a private waste management company to export 14,000 tons of toxic ash derived from a municipal incineration plant. The bulk cargo was loaded on board the *M/V “Khian Sea”*, which headed for the Caribbean to dump the ash on a man-made island in the Bahamas. The Bahamian government, however, refused to permit the discharge. The ash was then relabelled and the vessel tried to call at several other ports in the Caribbean, South America and Western Africa.⁸ In spring 1988, the crew finally succeeded in discharging the ash onto a beach near Gonaives in Haiti by declaring it as topsoil fertilizer. After approximately 4,000 tons had been discharged, the Haitian government recognised the true nature of the cargo and ordered the vessel to reload, which, however, left Haitian waters without reassuming the ash.⁹ Thereafter, the crew of the *M/V “Khian Sea”* was unsuccessful in its attempts to unload the remaining ash at several ports around the globe. The vessel was sold, reflagged and renamed, and when she arrived at Singapore in November 1988 her cargo was missing. It is assumed that the ash had been dumped into the Indian Ocean.¹⁰ Whereas two executives of the vessel operating company were sentenced to imprisonment by US courts for the dumping into the high seas, no one could be held liable for the costs of re-importation and clean-up at the Haitian shore.¹¹ It was only in 2000 that a major part of the ash located in Haiti was re-shipped to the US and finally deposited at a landfill in Pennsylvania.¹²

The *M/V “Khian Sea”* case is only one striking example of major environmental incidents that have occurred in the context of transboundary movements of hazardous wastes by sea. Another example of wastes being sent around the globe is the *M/V “Zanoobia”* case from 1987. An Italian waste management company shipped approximately 2,200 tons of chemical waste to Djibouti where the drums were intended to be buried. After the local authorities refused to allow the

⁷ For a detailed description of the *M/V “Khian Sea”* Incident see Gilmore, ‘The Export of Nonhazardous Waste’, 19 *Envtl. L.* (1988/1989), at 879–883; Pellow, *Resisting Global Toxics* (2007), at 107–123; see also Bruno, ‘Philly Waste Go Home’, 19 *Multinatl. Monit.* (1998).

⁸ Gilmore, ‘The Export of Nonhazardous Waste’, 19 *Envtl. L.* (1988/1989), at 880; Pellow, *Resisting Global Toxics* (2007), at 108; Walsh, ‘The Global Trade in Hazardous Wastes’, 42 *Cath. U. L. Rev.* (1992/1993), at 106.

⁹ Pellow, *Resisting Global Toxics* (2007), at 108; Rosenthal, ‘Ratification of the Basel Convention’, 11 *Temp. Envntl. L. and Tech. J.* (1992), at 62–63.

¹⁰ Liu, ‘The Koko Incident’, 8 *J. Nat. Resources and Envntl. L.* (1992/1993), at 130; Pellow, *Resisting Global Toxics* (2007), at 108; Walsh, ‘The Global Trade in Hazardous Wastes’, 42 *Cath. U. L. Rev.* (1992/1993), at 106.

¹¹ Pellow, *Resisting Global Toxics* (2007), at 110; Tsimplis, ‘The 1999 Protocol to the Basel Convention’, 16 *IJMCL* (2001), at 298.

¹² Pellow, *Resisting Global Toxics* (2007), at 110–119. See also Greenpeace, press release of 29 October 1998, ‘Philadelphia Incinerator Ash to Return from Haiti to the U.S.’; Haitian Government, press release of 22 April 2000, ‘The Haitian People Achieve Environmental Justice for Earth Day’; ‘Homeless for 16 Years, Barge of Garbage Returns to Pa.’, *Los Angeles Times* of 11 August 2002.

discharge, the cargo was sent to Venezuela for interim storage, then to Syria and finally back to Italy. Several people that came into contact with the wastes during the movement fell ill.¹³

Further examples include, amongst others, the Kassa Island incident in Guinea,¹⁴ the Koko Beach incident in Nigeria,¹⁵ the *Thor Chemicals* incident in South Africa¹⁶ and the *Formosa* incident in Cambodia.¹⁷

The *M/V “Probo Koala”* case¹⁸: The *M/V “Probo Koala”* was a Greek OBO-carrier chartered by an oil trading company with head offices in Amsterdam, Lucerne and London. In 2006, the vessel was used to temporarily store and process petrol blend stocks and naphtha while she anchored in the Mediterranean off the coast of Gibraltar. During this caustic washing process (“sweetening”), naphtha or petrol blends are mixed with caustic soda (liquid sodium hydroxide) to reduce the level of mercaptans in order to obtain tradable petrol for the African market. The highly toxic residues of this caustic washing were collected in the vessel’s slop tanks.¹⁹ In June 2006, the *M/V “Probo Koala”* called at the port of Amsterdam to refuel and to empty her slop tanks, whose content was declared as ordinary slops from oil tank washings. However, an unusual and pungent odour emanated from the samples taken by the port operator, so that the further discharging of the slop tank contents was prohibited.²⁰ The vessel then sailed to Paldiski in Estonia and loaded approximately 26,000 tons of petrol to be shipped to Nigeria. After delivery

¹³ See Liu, ‘The Koko Incident’, 8 *J. Nat. Resources and Env’tl. L.* (1992/1993), at 127–128; Wiedemann, ‘Die schlimmste Fracht meines Lebens’, *SPIEGEL* of 30th May 1988.

¹⁴ See Gilmore, ‘The Export of Nonhazardous Waste’, 19 *Env’tl. L.* (1988/1989), at 882; Liu, ‘The Koko Incident’, 8 *J. Nat. Resources and Env’tl. L.* (1992/1993), at 130; Vir, ‘Toxic Trade with Africa’, 23 *Env’t Sci. and Tech.* (1989), at 24.

¹⁵ See on this case: Eguh, ‘Regulations of Transboundary Movement of Hazardous Wastes’, 9 *Afr. J. Int’l and Comp. L.* (1997), at 130–134; Liu, ‘The Koko Incident’, 8 *J. Nat. Resources and Env’tl. L.* (1992/1993), at 131–134; Vir, ‘Toxic Trade with Africa’, 23 *Env’t Sci. and Tech.* (1989), at 23–24.

¹⁶ See Glazewski, ‘Regulating Transboundary Movement of Hazardous Waste’, 26 *CILSA* (1993), at 235; Lipman, ‘Transboundary Movements of Hazardous Waste’, *Acta Jur.* (1999), at 268; Poulakidas, ‘Waste Trade and Disposal in the Americas’, 21 *Vt. L. Rev.* (1996/1997), at 874.

¹⁷ This incident is described by: Lohnes, ‘Taiwanese Company Dumps 3000 Tons of Toxic Waste in Cambodia’, 11 *Colo. J. Int’l Env’tl. L. and Pol’y* (2000), at 264–270; Markus, ‘Taiwanese Waste Sent to Europe’, *BBC News* of 2nd March 2000.

¹⁸ HRC Doc. A/HRC/12/26/Add. 2; COP8 Doc. UNEP/CHW.8/16, at 6–9. See also Fagbohun, ‘The Regulation of Transboundary Shipments of Hazardous Waste’, 37 *HKLJ* (2007), at 834–837; Knauer, *et al.*, ‘Profits for Europe, Industrial Slop for Africa’, *SPIEGEL ONLINE* of 18th September 2006; Ognibene, ‘Dumping of Toxic Waste in Côte d’Ivoire’, 37 *Env’tl. Pol’y and L.* (2007), at 31; Pratt, ‘Decreasing Dirty Dumping?’, 35 *Wm. and Mary Env’tl. L. and Pol’y Rev.* (2011), at 582–584.

¹⁹ HCR Doc. A/HRC/12/26/Add. 2, at 7–8; OCHA Doc. OCHA/GVA/2006/0190; Frenk, ‘Was geschah an Bord der “Probo Koala”?’, *FAZ* of 27th October 2006.

²⁰ The port operator instead suggested delivering the slop to a disposal facility based in Rotterdam possessing the required capability to incinerate the chemical residues. The costs, however, amounted to EUR 900 instead of EUR 20 per cubic metre.

of the cargo the vessel called at Abidjan in Ivory Coast on 19 August 2006 and emptied her slop tanks. Approximately 528 cubic metres of chemical wastes were delivered to a local waste management company²¹ that had been founded only recently.²² The liquid wastes were simply dumped at various sites in and around Abidjan lacking any kind of soil sealing. It is officially estimated that as a result of direct contact and indirect exposure by consumption of contaminated water, groundwater and food products, 15 residents died, 69 were hospitalised and more than 108,000 people sought medical attention because of intestinal and respiratory problems, nausea and vomiting.²³ When the international public became aware of this incident the oil trading company attempted to settle this matter by mutual agreement with the Ivorian government. According to this agreement the Ivorian government received a contribution of GBP 100 million towards the costs of restoration of environmental damage and towards compensation payments for the families of killed and injured residents.²⁴ Notwithstanding this step, a class action lawsuit aggregating 31,000 residents was instituted before the London High Court in 2009, this later being withdrawn after the oil trading company agreed to an out-of-court settlement paying GBP 1,000 to each victim.²⁵ The oil trading company was, furthermore, sentenced by an Amsterdam Court to pay a fine of one million Euros for concealing the hazardous character of the wastes when they were initially unloaded in Amsterdam.²⁶

B. The Legal Perspective: Existing Rules and the 1999 Liability Protocol to the Basel Convention

International environmental law is a comparably young field of law. The vast majority of international conventions and agreements concerned with the protection of the environment and the conservation of natural resources have been

²¹ The disposal fees amounted to USD 30–35 per cubic metre.

²² OCHA Doc. OCHA/GVA 2006/0184; Ognibene, 'Dumping of Toxic Waste in Côte d'Ivoire', 37 *Envtl. Pol'y and L.* (2007), at 31.

²³ HCR Doc. A/HRC/12/26/Add. 2, at 8–9; COP8 Doc. UNEP/CHW.8/16, at 7.

²⁴ Fagbohun, 'The Regulation of Transboundary Shipments of Hazardous Waste', 37 *HKLJ* (2007), at 836; Pratt, 'Decreasing Dirty Dumping?', 35 *Wm. and Mary Env'tl. L. and Pol'y Rev.* (2011), at 584.

²⁵ Dowell, 'Trafigura Settlement: A Drop in the Ocean?', *The Lawyer* of 28th September 2009; Leigh, 'Trafigura Offers £1,000 Each to Toxic Dumping Victims', *The Guardian* of 18th September 2009.

²⁶ 'Trafigura found guilty of exporting toxic waste', *BBC News* of 23rd July 2010; Corbett, 'Implications from 'Probo Koala' ruling', *Trade Winds* of 30th July 2010; Evans, 'Trafigura fined £1m for exporting toxic waste to Africa', *The Guardian*, of 23rd July 2010.

created subsequent to the 1972 Stockholm Conference.²⁷ Those multilateral environmental agreements (MEAs) are almost exclusively designed as sectoral or regional conventions dealing with the protection of specific environmental resources or with particular dangers to the environment.²⁸ A coherent conception or a structured development of international environmental law does not exist. International law rather emerges where States recognise a current need for binding rules in a specific sector. This, however, also means that as soon as a certain environmental issue vanishes from the public debate, it is questionable whether there will be sufficient political support to establish a new and far-reaching international legal regime.²⁹ Toxic waste exports represent such an environmental issue.

The question of liability and compensation for damage resulting from the transboundary movement of hazardous wastes by sea is an interdisciplinary matter that touches on several aspects and, hence, constitutes an area particularly ripe for disagreement. It not only involves different commercial interests on the waste exporting, handling and disposing side, but it also needs to take account of the shipping and insurance industries as well as the industrial sectors demanding a steady supply of raw materials. Moreover, diverging political interests and positions are involved and there is a strong need for the protection of human health and the environment as well as for the conservation of natural resources. All these different interests and positions require a careful balancing by a legal regime addressing this issue. This applies all the more since the exportation of toxic waste is a highly emotional issue that encompasses not only an “environmental component”, but rather a conglomeration of human, social and ethical questions, the global distribution of responsibilities, the right to develop and to take part in the world trade market, and the burden of significant faults and failures from the past.³⁰

The issue of liability and compensation for damage resulting from the transboundary movement of hazardous wastes by sea needs to be considered in the context of the surrounding branches of law. The most important legal framework of substantive rules, in which this topic is embedded, is provided by the widely accepted 1989 Basel Convention on the Control of Transboundary Movements of

²⁷ The United Nations Conference on the Human Environment held in Stockholm in June 1972 was concerned with the international protection of the environment and resulted in the foundation of the UNEP and the adoption of the 1972 Stockholm Declaration as well as the formulation of an Action Plan with 109 recommendations.

²⁸ A global convention dealing in general with the protection of the global environment does not exist. Non-binding rules are however contained in the 1972 Stockholm Declaration and in the 1992 Rio Declaration.

²⁹ Examples of crucial environmental issues that have vanished from the current focus of public awareness are: liability for nuclear damage, use of outer space, depletion of the ozone layer, acid rain and forest dieback, dumping of wastes and nuclear wastes, and pollution from ships.

³⁰ As to the difficulties generally faced by the international environmental law, see also Crawford, *Brownlie's Principles of Public International Law* (8th ed., 2013), at 352–355.