PART I • ENVIRONMENTAL LIABILITY IN EUROPE
1 International and supranational systems of environmental liability in Europe

Monika Hinteregger

I. General systems of environmental liability  page 3
   1. Lugano Convention  3
   2. EC Directive 2004/35/EC on Environmental Liability with Regard to the Prevention and Remedying of Environmental Damage  6
      A. Genesis  6
      B. Contents  8
         a) General features  8
         b) Definition of compensable damage  13
         c) Competent authority and request for action  16
         d) Preventive measures and remedial action  17
         e) Liable persons  19
         f) Allocation of costs  21
         g) Financial security  22
         h) Cooperation between Member States  23
         i) Relationship to international conventions  23
         j) Review procedures  25
   II. Sector-specific international conventions  26
      1. Oil pollution by ships  26
      2. Nuclear damage  28
      3. Transboundary movement of waste, living modified organisms and transboundary effects of industrial accidents  31

I. General systems of environmental liability
   1. Lugano Convention

In 1993, at Lugano, the Council of Europe passed the Convention on Civil Liability for Damage Resulting from Activities Dangerous to the
The Lugano Convention, which also covers risks with respect to gene technology, has been open to accession since 21 June 1993, though it has not yet entered into force. So far, only nine states (Cyprus, Finland, Greece, Iceland, Italy, Liechtenstein, Luxembourg, Portugal and the Netherlands) have signed the Convention, but no state has yet ratified it.

The Lugano Convention provides for strict liability for damage caused by activities dangerous to the environment, including activities conducted by public authorities. It covers the environmental risks of dangerous substances, genetically modified organisms, dangerous micro-organisms and waste. ‘Dangerous substances’ are defined according to various EC Directives cited in Annex I to the Convention. With regard to waste, the Convention covers installations or sites for the incineration, treatment, handling or recycling of waste (further specified in its Annex II) and sites for the permanent deposit of waste. Liability is imposed on the operator of the activity, who is defined as the person exercising control over a dangerous activity (Article 2 § 5). A ‘person’ under the Convention means any individual or partnership or body governed by private or public law, whether corporate or not, including a state or any of its constituent subdivisions (Article 2 § 6). The operator is allowed to escape liability under various defences (Article 8), including contributory negligence (Article 9). The Convention does not modify the victim’s burden of proof regarding the establishment of causation. It only requires courts, when deciding on causation, to take due account of the increased risk of causing such damage inherent in the dangerous activity (Article 10) and provides for joint and several liability for multiple sources of causation (Article 11). In addition, the Convention establishes an elaborate system of rules providing access to information held by public authorities, as well as by operators (Articles 13–16). The Convention does not provide for compulsory financial security schemes, but it obliges the Contracting parties to ensure that where appropriate operators are required to participate in a financial security scheme or to acquire and maintain a financial guarantee up to a certain limit (Article 12). The statute of limitations is three years from the date on which the claimant knew or ought reasonably to have known of the damage and the identity

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of the operator. The right to bring an action ends, at the latest, after thirty years from the date of the incident that caused the damage (Article 17).

Compensable damage comprises damage to the person (loss of life and personal injury) and property damage, but also ‘loss or damage by impairment of the environment’ (Article 2 § 7c) and ‘the costs of preventive measures and any loss or damage caused by preventive measures’ (Article 2 § 7d). ‘Preventive measures’ are defined as ‘any reasonable measures taken by any person, after an incident has occurred to prevent or minimise loss or damage’ (Article 2 § 9). Loss or damage by impairment of the environment covers solely damage not otherwise considered to be damage to the person or damage to property, and compensation for such damage is limited to ‘the costs of reinstatement actually undertaken or to be undertaken’ (Article 2 § 7c). ‘Measures of reinstatement’ are ‘any reasonable measures aiming to reinstate or restore damaged or destroyed components of the environment, or to introduce, where reasonable, the equivalent of these components into the environment’ (Article 2 § 8). The definition of the term ‘environment’ is very broad, and includes ‘natural resources both abiotic and biotic, such as air, water, soil, fauna and flora and the interaction between the same factors; property which forms part of the cultural heritage; and the characteristic aspects of the landscape’ (Article 2 § 10).

The right to undertake measures of reinstatement and preventive measures shall be regulated by the laws of the Member States. Article 18 also provides for a right to collective action by environmental protection associations or foundations. Such bodies are entitled to request (i) the prohibition of a dangerous activity that is unlawful and poses a grave threat of damage to the environment, or (ii) that the operator be ordered to take preventive measures or measures of reinstatement. National law may formulate further conditions environmental organisations must comply with in order to obtain legal standing.

Damage caused by a nuclear incident governed by the Paris Convention 1960 (and its Additional Protocol 1964), by the Vienna Convention 1963 or by a specific internal law that is as favourable as any of those conventions, is not covered by the Lugano Convention. The Lugano Convention does not apply to damage arising from carriage, except carriage by pipeline or internal carriage inside an installation or site, and the Convention does not affect national rules relating to workmen’s compensation or social security schemes (Article 4). The Convention has no retroactivity, with some exceptions regarding the
permanent deposit of waste (Article 5). It also provides for specific rules on jurisdiction (Article 19) and recognition and enforcement (Article 23).

2. EC Directive 2004/35/EC on Environmental Liability with Regard to the Prevention and Remediying of Environmental Damage

A. Genesis

During the last two decades, the European Union made several attempts to establish a uniform European environmental liability regime. The proposal for a Directive on Civil Liability for Damage Caused by Waste, as presented in 1989, and Article 14 of the proposed Directive on the Landfill of Waste, which imposed no-fault liability on the operator of waste disposal sites, never came into effect. Subsequently, the Commission set aside its work in this specific area and initiated a discussion about the establishment of a comprehensive environmental liability regime not confined to waste management, and presented a ‘Green Paper on Remediying Environmental Damage’. The main features of such a liability regime were then laid down in the ‘White Paper on Environmental Liability’. The White Paper proposed a framework Directive imposing strict liability for damage caused by EC-regulated dangerous activities covering both traditional and environmental damage. It further proposed fault liability for damage to biodiversity caused by non-dangerous activities. The notion of

4 COM(93) 47 final of 14 May 1993.
environmental damage should be restricted to site contamination and damage to biodiversity already under the protection of the Natura 2000 network.

After heated debate on the proposed objectives of the White Paper by the various European institutions, complemented by further expert studies, which concluded in the 2001 Environment Directorate General Working Paper on Prevention and Restoration of Significant Environmental Damage, the Commission launched the first proposal for an environmental liability Directive on 23 January 2002. The proposal was then submitted to the co-decision procedure according to Article 251 EC. On 21 April 2004, the European Parliament and the
Council adopted Directive 2004/35/EC on Environmental Liability with Regard to the Prevention and Remedy of Environmental Damage.\textsuperscript{11} It entered into force on 30 April 2004, and had to be implemented by Member States by 30 April 2007.

**B. Contents**

\textit{a) General features}

The Directive is based on Article 175 § 1 EC, and establishes a framework of environmental liability to prevent and remedy environmental damage. It is based on the ‘polluter pays principle’ and the prevention principle, as provided for in Article 174 EC, while adhering to the principle of sustainable development. Imposing financial responsibilities on the operators of dangerous activities will create an incentive to minimise the risks of environmental damage arising from their activities.\textsuperscript{12}

The Directive concentrates on the prevention and restoration of contaminated sites and on loss of biodiversity. In doing so, it draws on


\textsuperscript{12} Article 1 and Recital 2 of the Directive.
several points of the US legislation regarding the prevention and restoration of natural-resource damage. During recent decades, US law has produced a comprehensive stock of environmental law that, inter alia, provides for compensation of natural-resource damage. The theoretical basis is the traditional Anglo-American public trust doctrine, according to which all land, water and wildlife is held in trust by the state for the benefit of the public.\footnote{J. Robinson, ‘The Role of Nonuse Values in Natural Resource Damages: Past, Present, and Future’ (1996) 75 Tex L Rev 193.} The purpose of such claims is to compensate the public for the loss of the resource itself, for any lost use or enjoyment and for the loss of any service that the resource provided.

In US federal law, claims concerning natural-resource damage are governed by section 107 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA),\footnote{42 USC § 9607 (1980).} section 311(f)(4) of the Clean Water Act (CWA),\footnote{33 USC § 1321. Section 311(f)(4) of the Clean Water Act provides that the costs of removal of oil or a hazardous substance recoverable under the statute include any costs or expenses incurred by the federal government or any state government in the restoration or replacement of natural resources damaged or destroyed as a result of a discharge of oil or a hazardous substance.} section 1002 of the Oil Pollution Act,\footnote{33 USC § 2702.} the Marine Protection Research and Sanctuary Act,\footnote{16 USC § 1443: ‘Any person who destroys, causes the loss of, or injures any sanctuary resource is liable to the United States for an amount equal to the sum of (A) the amount of response costs and damages resulting from the destruction, loss, or injury; and (B) interest.’} and the National Park System Resource Protection Act.\footnote{16 USC § 19jj: ‘Any person who destroys, causes the loss of, or injures any park system resource is liable to the United States for response costs and damages resulting from such destruction, loss, or injury.’} In addition, many states have enacted further statutes regarding the cleanup of waste sites and oil spills that include provisions for recovery of natural-resource damages similar to those in federal statutes.\footnote{L. Grayson, C. Picker, S. Siros and S. Bettison, ‘The Business Dilemma: 21st Century Natural Resource Damage Liabilities for 20th Century Industrial Progress’ (2001) 31 ELR 11356.}

The two most prominent sources for natural-resource damage are CERCLA and the Oil Pollution Act. CERCLA, which deals with the cleanup of old dumpsites, authorises the federal government, state governments and Indian tribes as trustees to recover damages from responsible parties ‘for injury to, destruction of, or loss of natural resources, including reasonable costs of assessment’, resulting from the release of hazardous...
substances. Natural resources are defined as 'land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources' that belong to, are managed by, are held in trust by, or are controlled by public entities such as the federal government, state governments or Indian tribes. Ownership of the resource is not required. It is sufficient that the public entity exercises a certain amount of control over the resource in question. In case of conflicting competences of different trustees, the risk of double recovery, although in principle excluded by law, may exist. Liability is strict, and imposed jointly and severally amongst multiple tortfeasors. There are only a few defences available, such as act of war, act of God, or act or omission of a third party unrelated to the defendant. The 1986 the Superfund Amendments and Reauthorization Act (SARA) amendments also added an innocent purchaser defence. Recovered sums must be used to restore, replace or acquire the equivalent of the damaged natural resources.

Federal trustees are nominated by the US President, and state trustees by the governor of each state. Trustees are obliged to assess damages to natural resources under their trusteeship. The Department of the Interior (DOI), which is the principal federal trustee under CERCLA, was delegated authority to promulgate regulations concerning the assessment of natural-resource damages. These regulations identify the best available procedures to determine such damages, including both direct and indirect injury, destruction or loss, and to take into consideration factors which include, but are not limited to, the replacement value, the use value and the ability of the ecosystem or resource to recover. According to CERCLA, there are two types of procedures for the assessment of natural-resource damages: standard procedures for simplified assessments requiring minimal field investigation and alternative protocols for conducting assessments in individual cases. The DOI promulgated these rules in 1986 and 1987, and, pursuant to court decisions, they have been amended several times.

times.\textsuperscript{34} If a trustee chooses to assess damages according to these regulations, the assessment has ‘the force and effect of a rebuttable presumption on behalf of the trustee’.\textsuperscript{35}

According to CERCLA and DOI regulations, natural-resource damages include the costs of restoring, replacing, or acquiring the equivalent of, the injured resource, the diminished value of the resource during the time between injury and restoration, and the reasonable costs of assessment incurred by the trustee. The diminished value of the resource also comprises the lost use value, and the lost ‘non-use’ value (‘passive use’ or ‘option, existence and bequest’ value) of the injured resource.\textsuperscript{36} For resources that have an objective economic value, the lost value is the diminution in market price. Lost uses that are not market based, such as the recreational use of a natural resource, are calculated using alternative techniques such as the travel cost theory which measures the value of the lost use according to the travel costs associated with undertaking these activities elsewhere. For the calculation of the non-use value of a natural resource, economic theory provides the contingent valuation methodology (CVM). In order to assess the non-use value of a natural resource not traded in the market, this theory creates a hypothetical market of sample individuals measuring their willingness to pay for the preservation of the resource. This method is highly controversial, though it is already acknowledged by courts, in principle.\textsuperscript{37}

The Oil Pollution Act (OPA) addresses the discharge of oil into navigable waters or on the adjoining shoreline. Section 1002 of the OPA\textsuperscript{38}

\begin{thebibliography}{38}
\bibitem{34} The promulgated DOI rules were challenged in court several times: \textit{Ohio v. DOI}, 880 F 2d 432 (DC Cir. 1989); \textit{Colorado v. DOI}, 880 F 2d 481 (DC Cir. 1989); \textit{Kennecott Utah Copper Corp. v. DOI}, 88 F 3d 1191 (DC Cir. 1996); \textit{National Association of Manufacturers v. DOI}, 134 F 3d 1095 (DC Cir. 1998).
\bibitem{38} 33 USC § 2702.
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