The Rotterdam Rules and their implications for environmental protection

Professor Francesco Munari

Professor of European Union Law, University of Genoa, Italy

Andrea La Mattina

Adjunct Professor of Maritime Law, University of Genoa, Italy

The Rotterdam Rules for the first time provide a regime of liability of the sea carrier which takes into account environmental protection issues. The aim of this article is not only to set out some significant innovations of the new convention and their impact on environmental protection, but also to underline that the new duties established by the Rotterdam Rules (not yet in force) seem to be a benchmark for interpreting other legal instruments regarding transport of goods by sea.[1]

1 Transport of goods by sea regulation and environmental protection: a bridge between two regimes?

International conventions currently in force on transport of goods by sea and the regulation of carrier liability – the Hague, the Hague-Visby and the Hamburg Rules – do not establish any specific provisions regarding the prevention of pollution and environmental protection. This is perfectly understandable bearing in mind their 'philosophical' background. The 1924 Brussels Convention (the Hague Rules) was not only drafted at a time when the protection of the environment was barely recognised, it was also conceived within a purely commercial perspective. For the first time at international level the core idea was to combine the interests of maritime carriers with those of shippers.[2] This commercial approach also clearly influenced the 1968 Visby Protocol and the 1979 Brussels Protocol, which amended and clarified the Hague Rules. Although the 1978 Hamburg Rules appeared after several international instruments

[1] This article is based upon a paper given by Francesco Munari and Andrea La Mattina at the Sixth European Colloquium on Maritime Law Research, Swansea on 27–28 May 2010.

[2] With reference to the role of the 1924 Brussels Convention in settling the conflict of interests between the carriers and the shippers see, inter alia, A N Yiannopoulos *Negligence Clause in Ocean Bills of Lading* (Louisiana State University Press Baton Rouge 1962); J Ridley *The Law of Carriage by Land, Sea and Air* (3rd edn Shaw & Sons London 1971) p 19 ff; T G Carver *Carriage by Sea* (13th edn Stevens & Sons London 1982) para 441 ff; G Treitel, F M B Reynolds *Carver on Bills of Lading* (Sweet & Maxwell London 2001) ch 9–062 ff; H Karan *The Carrier's Liability under International Maritime Conventions: the Hague, Hague-Visby, and Hamburg Rules* (Edwin Mellen Press Lewiston New York 2004) p 21 ff; S M Carbone *Contratto di trasporto marittimo di cose* (2nd edn in cooperation with A La Mattina, Giuffrè Milano 2010) ch 5. The preparatory works of the Hague-Visby system are edited by F Berlingieri (ed) *The Travaux Préparatoires of the International Convention for the Unification of Certain Rules of Law relating to Bills of Lading of 25 August 1924, the Hague Rules, and of the Protocols of 23 February 1968 and 21 December 1979, the Hague-Visby Rules* (Comité Maritime International Antwerp 1997) and by M Sturley *The Legislative History of the Carriage of Goods by Sea Act and the Travaux Préparatoires of the Hague Rules* (Fred B Rothman & Co Littleton Colorado 1990).

regulating the prevention of pollution at sea, they also lacked any ecological perspective, since their aim was to provide better protection for cargo interests. The Hamburg Rules were generally seen to have continued along the same lines as the Hague-Visby Rules – drafting style apart[3] – and indeed failed to improve carrier liability in any significant way.[4]

Over the last 40 years various international conventions have been concluded creating an international regime of environmental protection and liability of the carrier or other persons involved in transporting goods by sea in respect of damage to the marine environment caused during transportation.[5] Several conventions specifically deal with damage to the environment caused by sea transport of oil,[6] of bunker oil[7] and of hazardous and noxious substances.[8] Also relevant is the MARPOL 73/78 Convention, covering pollution prevention of the marine environment by ships arising from operational or accidental causes, such as oil, chemicals, harmful substances in packaged form, as well as sewage and garbage.[9] More recently, in May 2007, a treaty was concluded whereby shipowners are held financially liable for the removal of wrecks posing a hazard to the safety of navigation or to the marine and coastal environment.[10]

[3] With reference to the fact that the Hamburg Rules were drafted on the basis of civil law drafting style see Karan (n 2) p 47; J Honnold 'Ocean Carriers and Cargo; Clarity and Fairness – Hague or Hamburg?' (1993) 24 JMLC p 75 ff.

[4] In this sense see E Selvig 'The Hamburg Rules, The Hague Rules and Marine Insurance Practice (1981) 12 JMLC p 299 ff; R Hellawell 'Allocation of Risk between Cargo Owner and Carrier' (1979) 27 AJCL p 357 ff; S Mankabady *The Hamburg Rules on the Carriage of Goods by Sea* (Sijthoff Leyden-Boston 1978) p 54 ff and 113 ff; D C Frederick 'Political Participation and Legal Reform in the International Maritime Rulemaking Process: From the Hague Rules to the Hamburg Rules' (1991) 22 JMLC p 81 ff; G Bauer 'Conflicting Liability Regimes: Hague-Visby v Hamburg Rules – A Case by Case Analysis' (1993) 24 JMLC pp 57–60; L Delwaide 'The Hamburg Rules: A Choice for the EEC?' (1994) 96 Diritto marittimo pp 76–77; R Force 'A Comparison of the Hague, Hague-Visby and Hamburg Rules: Much Ado About Nothing?' (1996) 70 Tulane L Rev p 2051 ff, especially pp 2061–62; R Asariotis 'Allocation of Liability and Burden of Proof in the Draft Instrument on Transport Law (2002) LMCLQ p 388; W Tetley *Marine Cargo Claims* (4th edn Carswell Cowansville Quebec 2008) pp 936–37; M Lopez de Gonzalo 'Operatività e limiti delle regole di diritto uniforme relative al trasporto marittimo' (2008) 110 Diritto marittimo pp 631–38; Carbone (n 2) ch 5. For a comment on the first decisions applying the Hamburg Rules see A La Mattina 'Le prime applicazioni delle Regole di Amburgo tra autonomia privata, diritto internazionale privato e diritto uniforme dei trasporti' (2004) 40 Rivista di diritto internazionale privato e processuale p 597 ff.

[5] For a recent full review of these instruments see C de la Rue, C B Anderson *Shipping and the Environment* (2nd edn Informa London 2009).

[6] International Convention on Civil Liability for Oil Pollution Damage (CLC Convention) of 29 November 1969 (in force since 19 June 1975) as amended by the Protocols of 9 November 1976 (in force since 8 April 1981), 25 May 1984 (never entered into force) and 27 November 1992 (in force since 30 May 1996). Further amendments were introduced on 18 October 2000, with effect from 1 November 2003, under the so-called 'tacit acceptance' procedure. A consolidated version is published in International Oil Pollution Compensation Funds *Liability and Compensation for Oil Pollution Damage: Texts of the 1992 Conventions and the Supplementary Fund Protocol* (2005 edn) available from http://www.iopcfund.org. See also the complementary International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage of 18 December 1971 (in force since 16 October 1978), as amended by the Protocols of 19 November 1976 (in force since 22 November 1994), 25 May 1984 (never entered into force), 27 November 1992 (in force since 30 May 1996) and 16 May 2003 (in force since 3 March 2005). Further amendments were introduced on 18 October 2000, with effect from 1 November 2003, under the so-called 'tacit acceptance' procedure.

[7] International Convention on Civil Liability for Bunker Oil Pollution Damage of 23 April 2001 (in force since 21 October 2008), reproduced in (2001) 103 Diritto marittimo p 903.

[8] International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (the HNS Convention) of 3 May 1996 (not yet in force), reprinted in (1996) 35 International Legal Materials p 1415.

[9] International Convention for the Prevention of Pollution from Ships 1973, as modified by the Protocol of 1978 relating thereto (in force since 2 October 1983). The Convention includes regulations aimed at preventing and minimising pollution from ships – both accidental pollution and that from routine operations – and currently includes six technical Annexes (ie Annex I Regulations for the Prevention of Pollution by Oil; Annex II Regulations for the Control of Pollution by Noxious Liquid Substances in Bulk; Annex III Prevention of Pollution by Harmful Substances Carried by Sea in Packaged Form; Annex IV Prevention of Pollution by Sewage from Ships; Annex V Prevention of Pollution by Garbage from Ships; Annex VI Prevention of Air Pollution from Ships).

[10] International Convention on the Removal of Wrecks of 18 May 2007 (not yet in force). The text adopted by the relevant intergovernmental conference is contained in doc LEG/CONF.16/19 (23 May 2007) http://www.aidim.org/pdf/

It is safe to say that currently a rigid distinction exists between international conventions regulating the *commercial* liability of the sea carrier (ie the liability of the carrier for damage to the goods in respect of the shipper/receiver), and those regulating liability for *environmental damage* occurring during sea transportation. It is this distinction between the carrier liability regime and environmental protection regulation that has been reduced by the Rotterdam Rules, the new convention which, based on an original draft produced by the Comité Maritime International (CMI) and then developed and finalised by UNCITRAL, opened for signature on 23 September 2009.[11]

For the first time, the Rotterdam Rules emphasise that cargo liability and environmental protection are not two segregated areas of regulation. It is true that, because of the scope of application of the convention to contractual relationships,[12] the liability of the carrier is measured exclusively vis-à-vis its contractual counterparts. However, some of its provisions do seem to be relevant to the protection of the marine environment. We will examine some of these clauses to see if they can be interpreted as building a bridge between the regulation of transport of goods by sea and the prevention of damage to the environment.

2 The Rotterdam Rules: evolution without revolution, yet with significant innovations

Before looking at how environmental protection is regulated under the Rules, we will highlight some of the general aspects that may be useful in understanding the philosophy of this new international convention. The draftsmen of the Rotterdam Rules took into account reasons why the Hamburg Rules failed to reach sufficient international consensus,[13] and have come back to a carrier liability scheme similar to that adopted by the Hague-Visby Rules.[14] In particular, the 'presumed fault' of the carrier, established by Article 17.2, is based on some fundamental obligations the carrier must comply with,[15] coupled with a complex (and yet precise) *onus probandi* scheme, which is modelled on an amended version of the traditional 'excepted perils'.[16]

However, it would be a mistake to consider the Rotterdam Rules as a mere updating of the Hague-Visby Rules,[17] since the new convention modifies the carrier liability regime currently in force by taking into account both the technical evolution of sea transport and a full assessment of the duties a modern carrier should fulfil.[18] For instance, nautical fault has been

[11] In general, on the evolution of the preparatory work on the Rotterdam Rules see, inter alia, F Berlingieri, S Zunarelli 'Il Draft Instrument on Transport Law del CMI' (2002) 104 Diritto marittimo p 3 ff; H Honka 'The Legislative Future of Carriage of Goods by Sea: Could it not be the UNCITRAL Draft?' (2004) 46 Scandinavian Studies in Law p 93 ff; J Schelin 'The UNCITRAL Convention on Carriage of Goods by Sea: Harmonization or De-Harmonization?' (2008–2009) Texas Intl L J p 321 ff; M Sturley 'The United Nations Commission on International Trade Law's Transport Law Project: An Interim View of a Work in Progress' (2003) Texas Intl L J p 76 ff; M Sturley 'Transport Law for the Twenty-first Century: an introduction to the preparation, philosophy, and potential impact of the Rotterdam Rules' in D R Thomas (ed) *A New Convention for the Carriage of Goods by Sea – The Rotterdam Rules* (Lawtext Publishing Limited Oxon 2009) p 1 ff.

[12] Article 5 *General scope of application*.

[13] The Hamburg Rules are in force between in a limited number of states (at present 34), listed on UNCITRAL's website http://www.uncitral.org/uncitral/en/uncitral_texts/transport_goods/Hamburg_status.html.

[14] In this sense see Asariotis (n 4) p 389 ff; F Berlingieri 'Basis of Liability and Exclusions of Liability' (2002) LMCLQ p 336 ff; F Berlingieri 'Background Paper on Basis of the Carrier's Liability' (2004) CMI Yearbook p 140 ff; F Berlingieri 'Carrier's Obligations and Liabilities' (2007–2008) CMI Yearbook p 279 ff; F Berlingieri, S Zunarelli and C Alvisi 'La nuova convenzione UNCITRAL sul trasporto internazionale di merci "wholly or partly by sea" (Regole di Rotterdam)' (2008) 110 Diritto marittimo p 1173 ff; A Diamond 'The Next Sea Carriage Convention?' (2008) LMCLQ p 149 ff.

[15] See Rotterdam Rules arts 11, 13, 14.

[16] See in particular art 17.3. The complexity of the *onus probandi* scheme adopted by the Rotterdam Rules is highlighted by K Mbiah 'The Convention on Contracts for The International Carriage Of Goods Wholly Or Partly By Sea: The Liability and Limitation of Liability Regime' (2007–2008) CMI Yearbook p 289; D R Thomas 'And then there were the Rotterdam Rules' (2008) 14 JIML 189.

[17] Diamond (n 14) p 149.

[18] Thomas (n 14) p 189; D R Thomas 'An Analysis of the Liability Regime of Carriers and Maritime Performing Parties' in Thomas (n 11) p 52 ff; M Sturley 'The UNCITRAL Carriage of Goods Convention: Changes to Existing Law' (2007–2008) CMI Yearbook p 255; Mbiah (n 16) p 290.

removed from the list of the 'excepted perils'. More generally, the Rotterdam Rules provide not only the obligation that the carrier 'properly crew … the ship … during the voyage by sea',[19] but also the carrier's 'vicarious liability' in relation to every 'fault' of the shipowner's employees and/or agents during the execution of the transport contract.[20] Furthermore, the obligation to provide a seaworthy ship is extended by Article 14(a) throughout the entire duration of sea transport, rather than exclusively at its beginning, as it is the case under Article III(1)(a) of the Hague-Visby Rules. Further specific carriers' obligations (Articles 15, 17.3(n) and 32) have an impact on environmental matters and will be examined below.[21]

The evolution of maritime transport into a multimodal perspective is the basis of the multimodal transport provision established in Article 26, which extends, under certain conditions, the period of liability of the maritime carrier to the non-sea legs of certain transports.[22] The Rules have also taken into account some features of the liability regime contained in the Hamburg Rules. This is true, in particular, for the liability of the carrier for delay (Article 21), which arises when the goods are not delivered at the destination specified in the contract of carriage within the time agreed: if the time of delivery is not included then no such carrier liability can be assessed. Article 21 differs from Article 5.2 Hamburg Rules, however, in excluding the controversial phrase 'within the time which it would be reasonable to expect from a diligent carrier'.[23]

Thus it can be seen from these brief examples that the Rotterdam Rules reiterate the traditional carrier liability schemes initiated by the Hague-Visby Rules, while providing important clarification in places and introducing innovations as a result of developments in maritime transport. We agree therefore with Professor Sturley that the new convention can be called 'evolutionary not revolutionary'[24] as well as a fair compromise between 'tradition and modernity'.[25]

3 Four significant innovations of the Rotterdam Rules and their impact on environmental protection

3.1 Obligation of the carrier to provide a seaworthy ship 'during the voyage by sea'

Article 14 of the Rules establishes the duty of the carrier to exercise due diligence in order to provide a seaworthy ship, not only 'before' and 'at the beginning' of transport (as per Article III.1 of the Hague-Visby Rules), but also 'during the voyage by sea'. This continuous duty

[19] Article 14.
[20] Article 18.
[21] See section 3.
[22] In general, on the extension of the field of application of the Rotterdam Rules to multimodal transports see J Alcàntara 'The New Regime and the Multimodal Transport' (2002) LMCLQ p 399 ff; S Beare 'Liability Regimes: Where We Are, How We Got There and Where We Are Going' (2002) LMCLQ p 306 ff; F Berlingieri 'Multimodal Aspects of the Rotterdam Rules' (paper delivered at the Colloquium of the Rotterdam Rules 2009 held at De Doelen on 21 September 2009) http://www.rotterdamrules2009.com; S M Carbone, A La Mattina 'L'ambito di applicazione del diritto uniforme dei trasporti marittimi internazionali: dalla convenzione di Bruxelles alla UNCITRAL Convention' (2008) 44 Rivista di diritto internazionale privato e processuale p 981 ff; D Glass *Freight Forwarding and Multimodal Transport Contracts* (Informa London 2004) p 304 ff; D Glass 'Meddling in Multimodal Muddle? – a network of conflict in the UNCITRAL Draft Convention on the Carriage of Goods [wholly or partly] [by sea]' (2006) LMCLQ p 306; A La Mattina 'Le Regole di Rotterdam e il trasporto multimodale' in *Scritti in onore di Francesco Berlingieri* (2010) 112 Diritto marittimo (Special Edition) p 643 ff; T Nikaki 'Conflicting Laws in "Wet" Multimodal Carriage of Goods: The UNCITRAL Draft Convention on the Carriage of Goods [wholly or partly] [by sea]' (2006) 37 JMLC p 521 ff; E Røsaeg 'The Applicability of Conventions for the Carriage of Goods and for Multimodal Transport' (2002) LMCLQ p 316 ff; G J van der Ziel 'Multimodal Aspects of the Rotterdam Rules' (2009) CMI Yearbook p 301 ff.
[23] The debate regarding the opportunity to insert in the Rotterdam Rules a provision similar to art 5.2 of the Hamburg Rules has been recorded during the preparatory works (see UN Doc A/CN.9/645 para 64, www.uncitral.org).
[24] Sturley (n 18) p 255.
[25] F Delebecque 'The New Convention on International Contract of Carriage of Goods Wholly or Partly by Sea: a Civil Law Perspective' (2007–2008) CMI Yearbook p 264.

means that the carrier cannot be exonerated from liability by proving that the unseaworthiness occurred during the sea voyage and was not apparent before its commencement. The obligation to provide a seaworthy ship remains one of relative (not absolute) due diligence:[26] this means the carrier must do 'everything reasonable', not 'everything possible', and consequently must act 'with reasonable or ordinary care'.[27] Therefore, in order to be exempted from liability under the Rotterdam Rules the carrier must prove that the duty of due diligence was exercised from when 'the vessel enters within [its] orbit, ownership or service or control'[28] to when 'discharge of the cargo from the ship is completed'.[29]

This innovation is very important, although it should not be considered as 'revolutionary' since under the International Safety Management (ISM) Code[30] the sea carrier must provide a ship seaworthy for the whole duration of the voyage[31] irrespective of the provision in Hague-Visby Rules Article III.1. This provision has become anachronistic, given modern communication systems making it possible for the sea carrier to control seaworthiness wherever the ship may be.[32]

The Rotterdam Rules provide that 'during the voyage by sea' the carrier must not only be constantly informed as to the seaworthiness of the vessel, but also take all reasonable care necessary to ensure that the vessel continues to be seaworthy. Recent case law has confirmed that the standard of seaworthiness is now provided by the ISM Code,[33] and proven compliance with the code will satisfy the carrier's due diligence obligation under new convention. This interaction of different international instruments is also important as far as protection of the environment is concerned.

The extension of the period of the carrier's liability to provide a seaworthy ship will effectively increase safety at sea, prevent maritime casualties, and thus also reduce the possibility of pollution at sea. The Rules, together with the ISM Code, will further the protection of the marine environment.

---

[26] *Bradley & Sons v Federal Steam Navigation Company* (1927) 27 Ll L Rep 395 (HL): 'neither seaworthiness nor due diligence is absolute. Both are relative, among other things to the state of knowledge and the standards prevailing at the material time'. In the same sense see *Heddenhelm* [1941] Am. Mar. Cases 730 ff, *Itoh & Co. (America) Inc. v M/V Hans Leonhardt* [1990] Am. Mar. Cases 733, *Tuxpan Lim. Procs*. [1991] Am. Mar. Cases 2432 and *The Subro Valour* [1995] 1 Lloyd's Rep 509 where it was affirmed that 'due diligence' is not measurable 'by an absolute standard, but depending on the relative facts of the special case'.

[27] *Hamildoc* [1950] Am. Mar. Cases 197; The *Captain Sakharov* [2000] 2 Lloyd's Rep 255; *The Eurasian Dream* [2002] 1 Lloyd's Rep 719.

[28] *The Muncaster Castle* [1958] 2 Lloyd's Rep 255; *The Happy Ranger* [2006] 1 Lloyd's Rep 649.

[29] Berlingieri (2002) (n 14) p 339; T Nikaki 'The Fundamental Duties of the Carrier under the Rotterdam Rules' (2008) 14 JIML p 521.

[30] The ISM Code was adopted on 4 November 1993 with IMO resolution A.741(18); it became part – as Chapter IX – of the 1974 International Convention for the Safety of Life at Sea (SOLAS). See, inter alia, P Anderson *ISM Code: A Practical Guide to the Legal and Insurance Implications* (2nd edn Lloyds of London Press London 2005); J A Rodriguez, M C Hubbard 'The International Safety Management (ISM) Code: A New Level of Uniformity' (1999) 73 Tulane Law Rev 1585 ff; L C Sahatjian 'The ISM Code: A Brief Overview' (1998) 29 JMLC p 405 ff. The impact of the ISM Code on the liability of the sea carrier has been examined inter alia by F Figuière 'Le Code ISM et la notion de navigabilité' (2005) Rev Scapel p 93 ff; G W Poulos 'Legal Implications of the ISM Code: New Impediments to Sea Fever' (1996) 9 USF Mar L J p 37; D R Thomas (ed) *Liability Regimes in Contemporary Maritime Law* (Informa London 2007); Tetley (n 4) p 938 ff; L T Weitz 'The Nautical Fault Debate (the Hamburg Rules, the U.S. Cogsa 95, the STCW 95 and the ISM Code)' (1998) 22 Tulane Mar L J p 581 ff.

[31] F Berlingieri *Le convenzioni internazionali di diritto marittimo e il codice della navigazione* (Giuffrè Milano 2009) p 40; Berlingieri (2002) (n 14) p 338; Tetley (n 4) p 941 ff; Nikaki (n 29) p 521.

[32] Nikaki (n 29) p 521; T Nikaki 'The Obligations of Carriers to Provide Seaworthy Ships and Exercise Care' in Thomas (n 11) p 88.

[33] *The Eurasian Dream* [2002] 1 Lloyd's Rep 739; *The Torepo* [2002] 2 Lloyd's Rep 535; *Lloyd's Register North America v Dalziel* [2004] 254 FTR 81.

3.2 Abolition of the 'nautical fault' defence

Under the Hague-Visby Rules the carrier was relieved of liability for any 'act, neglect, or default of the master, mariner, pilot or the servants of the carrier in the navigation or in the management of the ship'; the rationale of this defence – nautical fault – was that once the ship sailed the owner/carrier was unable to communicate with the ship, and consequently could not be held responsible for any decisions or negligence of the master or crew.[34] Today, the availability of instant communications between shore and ship and the more demanding safety standards which must now be met by carriers such as the Standards of Training, Certification and Watchkeeping (STCW) Convention and the ISM Code make this defence unjustifiable. Although it was considered to be anachronistic at the time of the preparation of the Hamburg Rules[35] it was still under consideration during the drafting of the Rotterdam Rules and was supported by insurers and representatives of the P&I Clubs,[36] who highlighted the economic impact of its exclusion from carrier liability on insurance practice and, in particular, on related costs.[37] Some scholars have stated, however, that there is no consensus on an economic analysis of the costs related to carriage of goods by sea nor any evidence that the level of transport costs are directly connected to the carrier liability regime.[38]

This exclusion has thus been abolished from the Rotterdam Rules.[39] As a consequence, the sea carrier assumes a vicarious liability for breaches of obligations under the convention caused by acts or omissions not only of any performing party, but also of the master and of the crew of the ship; of employees of the carrier or a performing party; and, more generally, of 'any other person that performs or undertakes to perform any of the carrier's obligations under the contract of carriage, to the extent that the person acts, either directly or indirectly, at the carrier's request or under the carrier's supervision or control'.[40] This warranty obligation is consistent with the duty of due diligence provided for by Article 14(b), obliging the carrier – inter alia – to 'properly crew … the ship … during the voyage by sea'.

The abolition of the nautical fault exception from the carrier's liability will have a significant impact on the balance of risk between the carrier and cargo interests in favour of cargo, because – if the Rotterdam Rules enter into force – there will be fewer opportunities for carriers to contest their liability under the Rules and a likely increase in insurance costs.[41] The carrier will inevitably enhance the safety levels of his vessels, with the potential positive effect of preventing maritime casualties and – consequently – in reducing the probability of marine pollution.

---

[34] *The Lady Gwendolen* [1965] P 294, 330. In general, on the rationale of the nautical fault see, inter alia, the recent works of I Corbier ('La faute nautique, une notion à préserver' in *Liber Amicorum Roger Roland* (Paris 2003) p 85 ff), N Molfessis ('Requiem pour la faute nautique' in *Mélanges Bonassies* (Paris 2001) p 207 ff) and Weitz (n 30) p 581 ff).

[35] For further references on this point see G Auchter 'La Convention des Nations Unies sur le transport de marchandises par mer de 1978' (1979) 14 European Transport Law p 192 ff; F Berlingieri 'The Period of Responsibility and the Basis of Liability of the Carrier' (paper presented at the International Colloquium 'The Hamburg Rules: a choice for the EEC?' Antwerp 18–19 November 1993) (1993) 95 Diritto marittimo p 934 ff; B Makins 'The Hamburg Rules: A Casualty?' (1994) 96 Diritto marittimo p 660 ff; E Selvig 'The Hamburg Rules, The Hague Rules and Marine Insurance Practice' (1981) 12 JMLC p 299 ff; M J Shah 'The Revision of the Hague Rules on Bills of Lading within the U.N. Systemkey Issues' in Mankabady (n 4) pp 15–16.

[36] See UN Doc A/CN.9/WG III/WP.28, at 39–40.

[37] On these themes see C W H Goldie 'Effect of Hamburg Rules on Shipowners' Liability Insurance' (1993) 24 JMLC p 111 ff; M Sturley 'Changing Liability Rules and Marine Insurance: Conflicting Empirical Arguments about Hague, Hague-Visby and Hamburg in a Vacuum of Evidence' (1993) 24 JMLC p 119 ff.

[38] Diamond (n 14) p 150; L Tullio 'L'insuccesso delle Regole di Amburgo: approccio di analisi economica' (2007) 3 Diritto dei trasporti p 743 ff.

[39] S Girvin 'Exclusions and Limitation of Liability' (2008) 14 JMLC pp 525–26; S Girvin 'The Right of the Carrier to Exclude and Limit Liability' in Thomas (n 11) p 115 ff.

[40] Article 18.

[41] Diamond (n 14) p 150.

3.3 Deviation to avoid (or attempt to avoid) damage to the environment as an excepted peril

The list of exclusions under the Rules has also acquired new additions not found in the Hague-Visby Rules, one of which is where the carrier makes a 'geographic deviation' in order to take 'reasonable measures to avoid or attempt to avoid damage to the environment' (Article 17.3(n)).[42] In other words, the carrier is presumed to be exempt from liability for the cargo interests if (i) the loss, damage or delay to cargo was caused by a deviation to avoid or attempt to avoid damage to the environment or (ii) the measures taken to prevent such damage were 'reasonable' as demonstrated by the carrier.

This innovation is important because it encourages the carrier to participate in salvage operations, not only when there is a risk to human life or property, but also when there is a risk of damage to the environment. It also allows the carrier to choose alternative routes for the ship's voyage in order to avoid the risk of damage to the environment on the original route. It is clear that the draftsmen of the Rotterdam Rules have taken into account the increasing importance of protecting the marine environment in the context of salvage operations as regulated under the 1989 London Convention. In particular this provision makes clear that environmental protection in general is a priority vis-à-vis any conflicting cargo interests, and as such is one of the most significant innovations of the Rotterdam Rules.

Although the scope of the Rotterdam Rules makes it difficult for environmental concerns to be addressed directly, this new exclusion provides a clear signal that the objective of the new convention is to create a global regime for the carriage of goods by sea, and that within that global regime for the first time the protection of the environment has been given substantial priority.

3.4 The new definition of 'dangerous goods'

Neither the Hague-Visby Rules nor the Hamburg Rules contain a conclusive definition of 'dangerous goods'. Goods are dangerous if they are listed as such within specific international conventions (for instance, the International Maritime Dangerous Goods (IMDG) Code attached to the SOLAS Convention or the HNS Convention[43]) as well as cargo which is actually dangerous on a case-by-case basis.[44] As persuasively stated by the House of Lords in *The Giannis NK*, the term 'dangerous' is used in Article 4.6 of the Brussels Convention with 'a broad meaning', so that 'dangerous goods' are all cargos which – independent of their intrinsic nature – may damage the carrying ship or other goods carried on the ship.[45] The concept of 'dangerous goods' under the Hague-Visby Rules includes goods dangerous to *property*, but does not include goods dangerous to *persons* or to the *environment*, whereas the Hamburg Rules include within dangerous goods those that may damage *persons* or *property*, it being, however, 'unlikely that the word "property" extends to include danger to the environment'.[46]

This exclusion of the environment from the notion of dangerous goods has now been superseded by the Rotterdam Rules. Article 32 establishes that the special obligations of the

[42] On deviation and 'quasi-deviation' under the Hague-Visby Rules see, inter alia, M Dockray 'Deviation: A Doctrine All at Sea?' (2000) LMCLQ p 76 ff; T Nikaki 'The Quasi-Deviation Doctrine' (2004) JMLC p 49 ff; Tetley (n 4) p 227 ff.

[43] See M T Güner 'Transport of Hazardous and Noxious Goods by Sea – The IMDG Code' in J Basedow, U Magnus (eds) *Pollution of the Sea – Prevention and Compensation* (Springer Berlin-Heidelberg 2007) p 95 ff.

[44] *The Anastasia Comninos* [1990] 1 Lloyd's Rep 277. For further references see F Berlingieri 'Il trasporto di merci pericolose nel regime dell'Aja-Visby e nel regime di Amburgo' (2000) 102 Diritto marittimo p 1502; Carbone (n 2) 381 ff; M T Güner *The Carriage of Dangerous Goods by Sea* (Springer Berlin-Heidelberg 2008); D R Thomas 'The Carriage of Dangerous Cargo by Sea: A Modern Day Legal Conundrum' in *Scritti in onore di Francesco Berlingieri* (2010) 112 Diritto marittimo (Special Edition) p 1042 ff.

[45] *Effort Shipping Co Ltd v Linden Management SA (The Giannis NK)* [1998] 1 Lloyd's Rep 337. On this decision see, *ex multis*, F D Rose 'Liability for Dangerous Goods' (1998) LMCLQ p 480 ff.

[46] Thomas (n 44) p 1057.

shipper (i) to inform the carrier of the dangerous nature or character of the goods and (ii) to mark or label dangerous goods in accordance with the applicable law, covers goods which 'by their nature or character are, or reasonably appear likely to become, a danger to persons, property or the *environment*'. By the same token, Article 15 of the Rotterdam Rules gives the carrier (and the relevant performing party) the right to 'decline to receive or to load' and to 'take such other measures as are reasonable, including unloading, destroying, or rendering goods harmless, if the goods are, or reasonably appear likely to become, an actual danger to persons, property or the *environment*'.

It is beyond the scope of this article to explore the impact of these provisions in respect of the balance of risks between the carrier and cargo interests.[47] However, following the excepted peril of a deviation to protect the environment,[48] they represent another step forward in the direction of environmental protection. It is clear that the carrier liability regime of the Rules confers on the carrier a duty to bear in mind the interests of different stakeholders, well beyond those of the parties to the transportation contract. The carrier is expected to be proactive within the global trading system in avoiding negative effects on the environment through the movement of dangerous goods at sea.

As already noted, this is a fundamental innovation. The different approaches characterising the evolution of the international conventions on the carriage of goods by sea in relation to the interests to be preserved by the dangerous goods regulation can be summarised as follows: from the *trade* approach embodied in the Brussels Convention, which aims to protect only *property*, we have moved to the *human* approach of the Hamburg Rules, where goods are 'dangerous' when capable of damaging not only property but also *persons*, and eventually to the *ecological* approach expressly established by the Rotterdam Rules.

This has, potentially, substantial implications. If the carriage of goods dangerous to the environment triggers a right of the carrier to refuse to load these goods (and even a right to dispose of them) and unless the shipper can satisfy the carrier that their carriage is unlikely to determine a risk to the environment, the shipper has a clear incentive to enhance the safety of the shipment of the dangerous goods. On the other hand, the rights of the carrier as envisaged in Article 15 and taken in conjunction with Article 32 appear to create a duty of the carrier to use these rights to foster environmental protection, and to expect to be sanctioned when not making correct use of them. Thus a 'win-win' scenario seems to have been achieved and, if this convention enters into force, the new definition of 'dangerous goods' will actively contribute to the protection of the marine environment. It will stimulate both carriers and the cargo interests not to underestimate the ecological risks connected to transportation of dangerous goods.

4 New duties for environmental protection under the Rotterdam Rules as a benchmark for the interpretation of other legal instruments

In the preceding section we have identified those provisions contained in the Rotterdam Rules having specific significance for environmental protection. However, the entry into force of the Rules will by no means affect the application of existing international instruments dealing with marine environmental protection.[49] There will be no overlap between the former

[47] For further thoughts see R Asariotis 'Main Obligations and Liability of the Shipper' (2004) *Transportrecht* p 284 ff; R Asariotis 'Burden of Proof and Allocation of Liability for Loss Due to a Combination of Causes Under the New Rotterdam Rules' in Thomas (n 11) p 549 ff; S Baughen 'Obligations of the Shipper to the Carrier' (2008) 14 JIML p 555 ff; Diamond (n 14) p 159 ff; I H Olebakken 'Background Paper on Shipper's Obligations and Liabilities' (2007–2008) CMI Yearbook p 300 ff; O Song 'Shipper's Liabilities under the UNCITRAL New Convention on Carriage of Goods by Sea' (2008) Korean J Intl Trade and Business Law p 291 ff; Thomas (n 44) p 1058 ff; S Zunarelli 'The Shipper's Liability' (2002) LMCLQ p 350 ff.

[48] Section 3.3 above.

[49] See the conventions mentioned in Section 1, nn 6–9 and corresponding text.

and the latter. Indeed, of those provisions in the Rules which consider the environment most only *indirectly* consider protection of the environment, without specifically regulating it. This is the case with Article 14, for example, which establishes the obligation of the carrier to provide a seaworthy ship 'during the voyage by sea', and of the exclusion of nautical fault from the list of excepted perils provided for by Article 17.3. When the Rotterdam Rules do *directly* provide a regulation in protection of the environment (as is the case with the inclusion of the deviation to protect the environment and the new definition of 'dangerous goods' provided for by Articles 15 and 32 respectively), they do not interfere with the relevant provisions of the other international instruments; rather, they only impact on the balance of risks between carrier and cargo interests.

These conclusions are not undermined by the fact that Chapter 17 of the Rotterdam Rules ('Matters not governed by this Convention') does not explicitly address coordination between these Rules and existing international conventions regarding environmental protection. The object of Chapter 17 is to resolve potential overlap between the various carrier liability regimes as regulated by the Rules and by other international or national laws.[50] Equally, the scope of the international conventions regarding protection of the environment is such that there is no risk of overlap with the Rotterdam Rules. As already indicated, their fundamental purpose is to settle a 'contractual conflict' between the carrier and the cargo interests, when – for example – a convention like the 1969 CLC aims to 'channel' the consequences of oil pollution damage to the shipowner (who may not be the carrier). Similarly, the fact that the carrier may be liable under the Rotterdam Rules does not exclude liability under international conventions regarding environmental protection.

The provisions dealing directly or indirectly with environmental protection may serve other purposes. We have shown that the objective of the Rules is that of setting a level playing field in respect of the behaviour required by all players operating in the maritime (and multimodal) transportation industry. The regulation of the activities of these players can no longer be seen as separate from matters of general interest, such as the environment, which they directly affect. In this regard, it should be borne in mind that, since the adoption of the Hague-Visby Rules, the maritime transportation industry has evolved from a 'pioneering' activity into a global industry, and 'public' values have gradually emerged worldwide in the assessment of the standards of care and duty required by maritime carriers.

One can reasonably assume therefore that the enhanced standards of care established by the Rotterdam Rules regarding the environment need not be limited to the scope of application of these Rules. Indeed, they are meant to influence all legal systems touched by this global instrument, for instance as regards tortuous claims of third parties damaged by the behaviour of a carrier who has breached the provisions of the convention. In other words, this new global regime for seaborne transportation in the twenty-first century seems capable of influencing the standards required in any legal system to assess – in contract or in torts – the liability of an ocean carrier. In particular, it should serve as the benchmark at global level, without prejudicing higher standards required and imposed at national and regional level.[51]

[50] In particular, it is provided that the new 2009 Convention: (i) does not affect (a) the provisions of international conventions governing the carriage of goods by other modes of transport (art 82), (b) the provisions of international conventions or national laws regulating the global limitation of liability of the vessel owner (art 83) and (c) the applicable principles regarding the adjustment of general average (art 84), and (ii) does not apply to the liability for damage connected to a contract of carriage for passengers (art 85), nor to the liability for damage caused by a nuclear incident if the operator of a nuclear installation is liable for the damage under: (a) the Paris Convention on Third Party Liability in the Field of Nuclear Energy of 29 July 1960; (b) the Vienna Convention on Civil Liability for Nuclear Damage of 21 May 1963; (c) the Convention on Supplementary Compensation for Nuclear Damage of 12 September 1997; (d) any amendment to these conventions and any future convention in respect of the liability of the operator of a nuclear installation for damages caused by a nuclear incident; or (e) any national law applicable to such liability (art 86). On these topics, see E Røsaeg 'Conflicts of Conventions in the Rotterdam Rules' (2009) 15 JIML p 238 ff.

[51] See C–308/06 *Intertanko and Others* (Judgment of 3 June 2008) ECHR I–4057.

5 Conclusions

Although the Rotterdam Rules are not revolutionary, for the first time a regime of liability of the sea carrier is provided which takes into account the protection of the environment. In particular, the new convention demonstrates that the regulation of the transport of goods by sea and the prevention of damage to the marine environment are inextricably connected. The solely commercial approach of the 1924 Brussels Convention is no longer appropriate since all human activities bring with them their own ecological footprint.

Whilst the innovations provided for by the Rotterdam Rules have limited scope for the protection of the environment, they may yet have a significant impact. On the one hand, they could increase navigational safety, thereby reducing marine accidents which are a significant cause of pollution. On the other hand, and most importantly, they encourage the players involved in the transportation of goods by sea to actively contribute in protecting the environment. The Rotterdam Rules potentially set standards of care that may be used beyond the scope of application of the Rules to achieve a level playing field worldwide.

This is, in our view, a further strong argument for advocating the prompt ratification of the Rotterdam Rules by the major maritime trading states, with the intention of replacing all the international conventions on transport of goods by sea currently in force.