IN THE SUPREME COURT OF BELIZE, A.D. 2009

CLAIM NO. 45 OF 2009

ADMIRALTY

	THE ATTORNEY GENERAL OF BELIZE	**Claimant**
BETWEEN	**AND**	
	MS WESTERHAVEN SCHIFFAHRTS GMBH & CO KG	**1st Defendant**
	REIDER SHIPPING BV	**2nd Defendant**

—

BEFORE the Honourable Abdulai Conteh, Chief Justice.

Ms. Lois Young SC, with Ms. Deanne Barrow, for the claimant.
Mr. Michael Young SC, with Mr. Darrell Bradley, for the defendants.

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JUDGMENT

Introduction

1. The Belize Barrier Reef is one of the distinguishing features of the country. It lies just off the coast of Belize in a north-south axis. It is a natural and geographical phenomenon that forms a part of the Meso-American Barrier Reef system believed to have been formed over thousands of years. It is comprised mostly of corals and earned the status of a World Heritage site granted by UNESCO. This ranking is however in jeopardy as a result of

some degradation of parts of the reef by human activities relating to over-fishing, tourism and coastal land development.

The Belize Barrier Reef is undoubtedly today under threat from several factors. Indeed, as the news item posted on UNESCO website on the 27th June 2009, stated:

> *"Belize Barrier Reef Reserve System …. Enter UNESCO's Danger List*
>
> *The World Heritage Committee meeting in Seville, under the chair of Maria Jesus San Segundo, Ambassador and Permanent Delegate of Spain to UNESCO, has decided to inscribe Belize Barrier Reef Reserve System … on the List of World Heritage in Danger.*
>
> *The main problem with Belize Barrier Reef Reserve System concerns mangrove cutting and excessive development in the property which was inscribed in 1996 as largest barrier reef in the northern hemisphere, with offshore atolls, several hundred sand cays, mangrove forests, coastal lagoons and estuaries. While requesting stricter control of development on the site, the Committee also requested that the moratorium on mangrove cutting on the site which expired in 2008 be reinstated."*

It is therefore objectively the case that the Belize Barrier Reef, valuable as it is, is presently under serious threat.

It is in this environment that the **Westerhaven** ran aground on 13th January 2009.

2. The claim in these proceedings is in respect of damages caused to a part of the Belize Barrier Reef late at night by the grounding of the ship **Westerhaven** on the Barrier Reef at approximately 1.78 nautical miles east of Glory Caye, on 13th January, 2009 off the coast of Belize.

3. The principal issue in the event, related to the quantification of damages in this case as a result of the damage to the Belize Barrier Reef as a result of the grounding on it of **The Westerhaven**.

The Subject Matter of the Claim: The Belize Barrier Reef

4. It is, I think, helpful in view of the principal issue joined between the parties in these proceedings to give an account, if only by way of a description, of the **role and functions** of the subject-matter of the claim in this case, viz, **the Belize Barrier Reef** and the resulting damages from the grounding on it of **The Westerhaven**.

5. For the purpose of the hearing witness statements, reports and oral testimonies were tendered. In particular on the subject-matter of the claim, I find the witness statement of Dr. Melanie McField, cogent and helpful. She is a member of the Council of the International Society of Reef Studies; and a Director of the Healthy Reefs for Healthy People Initiative, a multi-institutional collaboration of research and conservation organizations. She is presently employed by the Smithsonian Institution, National Museum of Natural History, in Washington, D.C., USA. She was tendered as an expert witness and her field of expertise is in the study and assessment of coral reef ecosystems, marine science and conservation.

6. I have taken the liberty to quote extensively from Dr. McField's witness statement of 6th November 2009 in so far as the subject-matter of the claim is concerned. She states among others things as follows, in this regard: Paras. 13, 14, 15, 16, 17, 18, 19, 22, 27, 30, 34, 35, 36, 37 and 38.

Background: A coral reef is a living, functioning, productive ecosystem

13. *Coral reefs such as the Belize Barrier Reef Complex are much more than the three dimensional features on the seabed. Coral reefs are actual living ecosystems made up of a vast assemblage of plants, animals and microbial life that function together to sustain the reef framework and to produce a variety of ecosystem services benefiting the people of Belize, the Wider Caribbean and the world.*

14. *The living reef ecosystem and the services it provides are not the 'property' of anyone. The reef can not be bought or sold. A "google" search of "property in Belize" turns up over 33 million hits – none of the listings reviewed were selling coral reef. In fact, several years ago two private investors attempted to lease a section of reef from the Government of Belize as a tourism management concession. Their efforts were unsuccessful due to public outrage at the suggestion that the nation's coral reef is certainly could be leased as property to any private entity. The Belize Reef is certainly part of the nation's natural capital and public assets, capable of providing revenue generation and valuable ecosystem services for millennia to come, if its functional integrity is maintained.*

15. *The Belize Barrier Reef Complex includes the barrier reef, fringing reefs, inshore faroes and three unique off-shelf atolls. The reef itself supports a complex web of relationships of living organisms functioning as a unit and interacting with their physical environment. Thus, when a ship grounds into the reef the resulting damages not only result in a loss of the ecosystem itself, including its present and future marine inhabitants, but also results in a loss of the many ecosystem services and values that would have been provided by the reef for centuries to come. These losses are thus much more significant than just the present physical damage to the three dimensional limestone structure of the reef and include the loss of revenue, food, biodiversity and physical protection, among others for decades to centuries into the future.*

16. The injury to the ecosystem and the loss of use of the environment take a number of forms. Together they represent losses of what are commonly referred to as the "ecological services" of the reef.

Impact of Westerhaven grounding: loss of habitat for fish, invertebrates and plants and associated commercial fisheries value

17. Reef destruction results in habitat loss for a number of marine species, including those of commercial value. Fish, marine mammals and invertebrates like the spiny lobster and the queen conch lose their living, feeding and spawning grounds. Studies have found that there is a direct correlation between reef damage and dwindling fish numbers.

18. The Westerhaven grounding occurred inside the Caye Glory (Emily) Spawning Site Marine Reserve is of much higher ecological significance that if it had occurred outside of the protected areas system. The Caye Glory Marine Reserve was designed to protect the critically endangered Nassau Grouper (Epinephelus striatus). This site once supported what is thought to have been the largest spawning aggregation of Nassau Grouper in the world. In additional to the value of these fishes as food, the tourism value of groupers in general and spawning sites in particular, is well documented. Gladden Spit Silk Cayes marine reserve (spawning site) was found to have an annual value of over four million US dollars from fisheries, tourism and non-use values, see report attached hereto marked C.

19. The reef habitat is critical to provide resting and foraging areas for the groupers that spawn on this important bank, located just 700 meters distance from the grounding impact site. Apart from the critically endangered Nassau Grouper, many other species of fish, molluscs and crustaceans that inhabit the reef, including other commercially valuable species like the spiny lobster.

22. Coral reefs also provide habitat for marine plants, algae and microorganisms, which in turn provide a food source for other marine life (herbivorous fish, sea urchins, conch, etc) and

humans (seaweed is consumed directly). Marine plants also absorb carbon dioxide and release oxygen. Their role is key in preserving the delicate gaseous chemical balance of the sea, and the entire planet, as the oceans absorb almost half of the carbon dioxide humans emit into the atmosphere.

Loss of protection of the coastline against erosion and storm surge

27. *Coral reefs provide critical protection against erosion causes by waves. In this function the reef is like a natural sea wall; it dissipates a great deal of wave energy and momentum. During tropical storms and hurricanes the Belize Barrier reef spares the residents of coastal and insular Belize and their properties from some of the destruction of the storm surge. Even in the absence of major storms, the constant pounding of waves over time will erode our shoreline and beach if there is no reef to mitigate the impact. With the growing value of Belize's coastal real estate market and the increasing value of coastal properties, the value of this shoreline protection function of reefs is expected to increase in the future.*

Tourism, recreational and aesthetic value

30. *Undoubtedly coral reefs are a mainstay of the tourism industry in Belize. Every year over 250,000 thousand tourists vacation in Belize, with approximately 70% of these reporting that they come for a marine environmental experiences (snorkeling, diving, sportsfishing, sailing) along the Barrier Reef and surrounding atolls. Tourism accounted for approximately 17% of GDP in 2006. In addition, one in every four Belizeans is employed within the tourism sector.*

Biodiversity

34. *Coral reefs are the most diverse ecosystem in the ocean and are equated to the "rainforests of the sea" for their wealth of biodiversity and unique genetic material, which holds great promise for further pharmaceutical discoveries and values.*

35. *Belize's Barrier Reef contributes greatly towards the total biodiversity of the country, the region and indeed the world. It*

has been identified as one of the world's 'hotspots of biodiversity' and one of the world's most famous marine World Heritage Sites. It constitutes a unique ecosystem with complex interrelationships between various animals and organisms.

36. The Belize Barrier Reef has potential for use in the pharmaceutical and other industries, through both the study of unique species and the identification of unique chemicals in marine plants and animals (including sponges, octocorals, and gastropods living on the reef framework). The vast potential value of these chemical compounds is immeasurable at the present time and has not been included in the previous evaluation figures.

Cultural value

37. Belize's Barrier Reef Reserve System has been named a World Heritage Site by the United Nations Educational, Scientific and Cultural Organization (UNESCO). World Heritage Sites are sites of outstanding cultural or natural importance to the common heritage of humanity.

38. As part of the national heritage, the Belize Barrier Reef is something of which almost all people who live in this country are proud. From primary school onward, the value and uniqueness of the Belize Barrier Reef is emphasized in the classroom. Most Belizeans cherish the reef and feel a certain emotional attachment to it, as well as sense of national pride, which is also damaged by the careless destruction of our precious coral reef resource.

7. I should point out for clarification that Dr. McField in fact made two witness statements in this case, the first was dated 6th November 2009 and the second, 20th November 2009. Both statements are, however, in the relevant paragraphs I have reproduced here, almost a repetition of each other, save that the statement of 6th November contains paragraphs relating to visits to the site, photographic and video references to the site of the grounding of **The Westerhaven** and a description of the damaged

area and an assessment of the value of the damage. (I shall return to this later). She tendered in evidence video film and posters of the area of the grounding of the **Westerhaven** and the damaged area of the Barrier Reef.

8. Dr. McField was cross-examined by Mr. Michael Young SC for the defendants but the substances of her witness statement relating to the nature of the subject-matter of the claim, its role and functions, remains unaffected. I find it extremely helpful in this case.

9. It is pertinent as well, I think, to give a description of the subject-matter of this claim, the Belize Barrier Reef from **Motor Vessel Westerhaven Grounding Report, Caye Glory (Emily) Site Belize Barrier Reef**. This is a Report prepared by Messrs. Walter Jaap and Herbert Ed Watkins of Lithophyte Research and A & E Management, respectively. These were two experts who testified on behalf of the claimant on the assessment of damages in this case. (More on this later). Their Report was prepared after visits to the site of the grounding of the **Westerhaven**; and is dated 15th May 2009, and was tendered in evidence. At page 3 of the Report they stated:

> *Belizean coral reef resources makeup the majority of the Mesoamerican Reef System, which is the longest barrier reef in the Caribbean (McField et al., 2007). The Belizean Barrier Reef (BBR) is 230-260 km long (Wells, 1988; Spalding et al., 2001), it includes 963 km^2, and multiple portions of BBR were designated World heritage sites in 1996 (Spalding et al., 2001). Tourism, fisheries, and local resident's recreations are significant economic benefits from reef resources to Belize (Wells, 1988; McField et al, 2007). Stoddart (1962a) provides a floral inventory of several Cayes. Details on the flora and fauna of the BBR system are mostly*

based on research conducted at Carrie Bow Caye Smithsonian field laboratory (Rutzler and Macintyre, editors 1982):

The Motor vessel Westerhaven struck a portion of the barrier reef, near Caye Glory (17° 05.113N', 087°59.419W', Figure 1). The site is a marine protected area (MPA), and fishing is restricted because it is a spawning aggregation site for Nassau Grouper (Epinephelus atriatus). The grounding was in the spur and groove formations with east-west structures (prevailing wind and wave direction). Principal corals include Acropora palmata Agraicia tenuifollia, Millepora complanata, and Porites astreoides.

A study of the spur formations at Carrier Bow Caye, south of Caye Glory reported that the outer barrier reef (BBR) was approximately 7,000 years old (Carbon isotope dating); the spurs were built upward by corals in the past 3000 years (Shim et al., 1982).

The size of the area, nature and extent of the damage to the Barrier Reef resulting from the grounding of the Westerhaven

10. Dr. McField stated in para. 9 of her witness statement of 6th November 2009, in relation to this as follows:

On 19th January 2009 the research team was tasked with travelling out to the site of the Westerhaven grounding, in the area known as Caye Glory in the Central territorial waters of Belize in order to dive the injury site, document the damages and assess the impact of this injury. My team and I recorded the results of our research and

assessment of the Westerhaven grounding in the written report dated 27th January 2009 entitled "Westerhaven Ship Grounding Reef Health Assessment (Caye Glory)" ***(Exhibit A)*** *and seen in the larger scale photos* ***(Exhibit B).***

11. She attached as **Exhibits A** and **B** to her witness statement, the written report and the photographs of the area she referred to.

12. The Written Report dated 27 January 2009 was prepared by a research team comprised of Dr. Melanie McField herself, Miguel Alamilla and Kirah Forman and Armeid Thompson. This team conducted site visit of the area of the grounding on 14th January 2009, (by Dr. McField only) and 19th January 2009 (by the full research team). The object of the visits was to conduct assessments of the site and damage thereto. The Report titled **Westerhaven Ship Grounding Reef Health Assessment (Caye Glory)** was submitted by the Fisheries Department, Ministry of Agriculture and submitted to the Department of the Environment, Ministry of Natural Resources and Environment. This was tendered in evidence as well.

13. At page 2 of the Report under the rubric **Habitat Affected** is the following:

> *"The habitat affected was prime fore reef (spur and groove) coral reef habitat along Belize's barrier reef – the longest in the Western Hemisphere. The Belize Coastal Zone Institute's official habitat (Map 3) indicates a variety of reef habitats in the area.* [Map 3 is of the Marine Habitat at Caye Glory indicating Westerhaven ship grounding area with details showing cone damage zone (in red and partial damage zone in purple.]

The Report continues at page 2:

"The core damage field was reduced to a completely flattened sand/rubble zone, with all topographic complexity being removed. The core zone (red area) consists of the main damage area having 98% destruction of corals and other living organisms. The partial damage zone (purple area), has 25% of the reef damaged."

At page 5 of the Report under the heading **Value of the Habitat affected** continues:

"Belize's coral reefs and mangrove-lined coasts provide critical protection against erosion and water-induced damages especially from tropical storms; they have supported artisanal fishing communities for generations; and they stand at the center of vibrant tourism industry, drawing snorkelers, divers and sport fishermen from all over the world. Coastal properties will become increasingly vulnerable to storms and erosion and reef-related tourism will suffer as reefs and mangrove decline.

… The damage inflicted by the Westerhaven flattening reef spurs, will require approximately 1000 years to recover, if it can recover naturally at all, since structural complexity has been removed by the complete flattening of reef spurs (transformed into small unconsolidated rubble that will hamper natural coral recruitment). Thus, the goods and services provided by the reef will be lost during much of this recover time.

The total area damaged was 18520m^2. Within the core damage zone (7332m^2) 98% of the reef was totally destroyed to very fine rubble.

The remaining partial damage zone had an estimated level of damage of 25%, primarily focused on the tops of spurs which were removed or broken off."

14. It should be observed that the Report in Table 2 at page 6 headed **Westerhaven damage calculations** gave the total damage areas as 18519.6m^2 (that is 7332.3m^2 as core damage and 11187.3m^2 as partial damage) and estimated the monetary value of the damage at US $26,952,693 using a value of US $2,700 per square metre of damaged area. This sum is said to be a more conservative average reef value figure of US $2,700/$m^2$ based on an average value of reef grounding awards compiled by Jeffrey Weiglus in his study entitled **"General Protocol for Calculating the Basis of Monetary Legal Claims for Damages to Coral Reefs by Vessel Groundings and an application to the northern Red Sea"** (August 2004). The Weiglus Report is annexed as Exhibit F to Dr. McField's witness statement.

15. In the event, however, the total loss, damage and expenses claimed for the claimant amounted to BZ $31,089,047.00. (More on this later).

16. I should point out here that the great divide between the parties in this case is really about the quantification of the monetary damages flowing from the grounding of the **Westerhaven** on 13th January 2009 on the Belize Barrier Reef. It is urged on behalf of the claimant, that the Habitant Equivalence Analysis (HEA) method is appropriate to value the damage caused in this case, and that if there is to be a limitation of liability, the **1996 Protocol to the Limitation Convention** is applicable rather than the **Convention on Limitation of Liability for Maritime Claims, 1976**. For the defendants, it is urged that the relevant and applicable instrument is the Limitation of Liability Convention 1976. (More on this later).

The claimant and the claim

17. As a result of the grounding of the ship on the Barrier Reef, the claimant, the Attorney General, claiming *"as the owner, custodian and guardian of the Belize Barrier Reef"* issued these proceedings against the defendants. I am satisfied that, given the fact that the Belize Barrier Reef is within the territorial remit of Belize as constituted in section 1 of the Belize Constitution and more particularly described in **Schedule I** of the Constitution, the claimant, the Attorney General is, pursuant to section 42(5) of the Constitution, a proper claimant, in addition, for the purposes of this case in his role as *parens patriae*.

18. The nub of the claim is the negligence of the defendants, through their servant/agent, the master in charge of the ship at the time of its grounding on the Barrier Reef, and the resulting damage.

19. In the amended statement of claim, the claimant avers as follows:

PARTICULARS OF LOSS, DAMAGE AND EXPENSE

A. Damage and injury to the environment and loss of use of the environment including:

(i) Loss and damage to habitat for fish, invertebrates, and plants and associated commercial fisheries value

(ii) Loss of protection against erosion and storm surge

(iii) Loss of biodiversity

(iv) Loss and damage to tourism, recreational and aesthetic and cultural value

Value of environmental and ecological loss and damage: $5,400.00 per square metre of injured reef

Total environmental and ecological loss and damage: $31,080,000.00

B. Expenses incurred by Governmental agencies in responding to the incident.

(i) Expenditure incurred by the Belize National Coast Guard in responding to the casualty: $3,000.00

(ii) Expenditure incurred by the Fisheries Department for immediate inspection and assessment of injured reef and marine environment $5,000.00

(iii) Expenditure incurred by the Department of the Environment for immediate inspection and assessment of injured reef and marine environment: $1,047.00

Total expenses incurred in responding to incident: $9,047.00

TOTAL LOSS, DAMAGE AND EXPENSES: $31,089,047.00

The Ship Westerhaven and the defendants' admission of liability for the damage it caused

20. At the material time the ship was owned by the first defendant and operated on a charter by the second defendant who was joined by an order of the court dated 13th February 2009.

21. **The Westerhaven** is a ship with registered tonnage of 7541 and measures 119.54 metres long and 20.40 metres wide. On the day of the incident, the ship had served the Port of Belize for the purpose of discharging and loading containers and was outboard bound for Santo Toma, Guatemala and had a cargo onboard of 1,831 tons, when she ran aground on the Barrier Reef in the early hours of 13th January 2009.

22. At the commencement of the trial on 10th November 2009, Mr. Michael Young SC, the attorney for the defendants, however, informed the court that his clients were conceding liability for the damage caused by the ship by its running aground on the Barrier Reef. This therefore obviated the need for a finding by the Court on the issue of negligence.

23. But in the Defence and Counterclaim however, the second defendant as charterer of the ship specifically claimed that any liability on its part in respect of the claim is limited under the **Conventions on Limitation of Liability for Maritime Claims 1976 (The 1976 Convention)**. It accordingly avers at paras. 25, 26, 27 and 28 that:

> *"25. The Second Defendant in any event as charterer of the Ship by virtue of Rule 69.28 of the Supreme Court Civil Procedure Rules claims that any liability on its part in respect of this claim is limited under the Convention on Limitation of Liability for Maritime Claims 1976 [hereinafter called the* ***"1976 Convention"]*** *which applies to Belize by virtue of (a) Section 62 of the Harbours And Merchant Shipping Act of Belize [Chapter 234 of the Laws of Belize] and (b) the Merchant Act 1894 of the United Kingdom as amended by subsequent Merchant Shipping Acts.*
>
> *26. The Second Defendant relies on the facts stated herein in support of its defence of limitation.*
>
> *27. Article 1(b) of the 1976 Convention provides for the calculation of limits of liability in respect of claims other than claims for loss of life or personal injury [which could cover*

*damage to property] and the liability in respect of the Ship calculated in accordance with the said Article is US 2,009,347.49 as shown in the document marked "**AB5**" exhibited to the affidavit of Arie Bijl sworn on the 27th of January 2009 and filed in this Claim.*

28. The Second Defendant intends to apply to have the issue of limitation of liability tried as a preliminary issue."

24. In the event however, there was no application to have the **issue of limitation of liability** for the damage tried as a preliminary issue.

25. Rather, the rest of the trial, hearing and submissions, both oral and written, were devoted to **the issue of limitation of liability of the defendants for the damage to the Barrier Reef by the grounding of the ship**.

The Preliminary skirmishes over the arrest and security for the release of the Westerhaven

26. But before the hearing proper of the claim could get underway, there was an animated skirmish between the parties relating to the arrest, release and security thereof of the ship.

27. As a result of its grounding on the Barrier Reef on 13th January 2009. **The Westerhaven** was arrested at the instance of the claimant on 17th January 2009 and taken into the Port of Belize City. Then there ensued some engaging interlocutory skirmishes between the defendants and the claimant to secure its release; despite its running aground, the ship was sea-worthy and could sail under her own steam. But as it was laden with cargo destined for other ports other than Belize City Port, its owners and

charterers were not unnaturally anxious to secure its release. This gave rise to the interlocutory skirmishes I have referred to. The claimant was equally determined to have the ship remain in Belize until the claim is resolved. However, as the claim was one in admiralty against the ship itself, there was the matter of security to satisfy any judgment that might be awarded in respect of the damage to the Barrier Reef.

28. On 26th January 2009, the defendants made an application to the Court to approve security for the claim in the amount of US $4,815.00 either by way of an undertaking or a guarantee provided by the insurers of the ship, in order to secure its release from arrest.

29. Ms. Lois Young SC, lead attorney for the claimant, opposed the application, principally on the ground that it ought properly to have been made in a Limitation Claim, pursuant to Order 69, Rule 28 of the Civil Procedure Rules of the Supreme Court 2005. I however, ruled that pursuant the Convention on Limitation of Liability for Maritime Claims 1976 applicable in Belize, I could entertain the application notwithstanding the absence of a Limitation Claim by the defendants. I was satisfied that the intent and purport of this Convention generally was to enable ship owners to limit their liability in accordance with its provisions, especially where ship owners seek to procure the release of an arrested ship against which a claim is made.

30. After carefully listening to both Mr. M. Young SC for the ship owners and Ms. L. Young SC for the claimant, I concluded that on this aspect of the Convention its practical utility and purpose was to enable an arrested ship to be released, but without prejudice to the outcome of the claimant's claim against it but on the assurance of the requirements for security of that release.

31. Therefore, given the quantum of security then proffered by the defendants and the quantum of the claimant's claim ($31,080,000.00), I concluded that in the circumstances, the sum of US $6,500,000.00 or BZ $13,000.000.00, should be put up as security by the defendants to secure the release of the ship. I initially ordered that this sum was to be provided by a guarantee issued by any of the commercial banks in Belize or any reputable insurance company operating in Belize.

32. This was later varied, because of the difficulties said to be encountered by the defendants in procuring from a local source, to the acceptance of both sides, of a guarantee to be provided by a Protection and Indemnity Club (P & I Club). As presently advised, the court is not aware of any P & I Club in Belize. This may well be a lacuna in the shipping industry such as it is in Belize and its admiralty practice.

33. Having said that, however, there is for the purposes of this claim a guarantee in the sum of US $6.5 Million provided by the P & I Club of the insurers of the owners of the ship.

The quantum of this guarantee was fixed by the Court (see the Ruling dated 28th January 2009).

34. I make mention of this because, in the defendants' statement of case, there is as well a counterclaim against the claimant for "insisting on an excessive security." The short answer to this is that the **quantum** of security in this case was set by the Court itself.

35. I notice happily, and properly, Mr. Young SC, did not in argument at trial, pursue this counterclaim.

The issue of limitation of liability: Which instrument is applicable, the 1976 Convention or 1996 Protocol to the Convention?

36. This case was substantively fought against the backdrop of this issue which relates directly to the quantum of the defendants' admitted liability for the damage to the Barrier Reef. In a sense, the parties contested this issue in an open-ended fashion as it were, save, as I have stated above, that the defendants have claimed a limitation of their liability for the damage pursuant to the **Convention on Limitation of Liability for Maritime Claims, 1976**. I shall refer hereafter to this Convention as the "1976 Convention". It was made initially applicable to Belize by the provisions the United Kingdom Merchant Shipping Act 1979 (Belize) Order 1980 – United Kingdom Statutory Instrument 1980/1509, even before the country became independent.

37. On the other hand, for the claimant, the Government of Belize, it is contended that in virtue of the very same section 62 of Chapter 234, the Harbour and Merchant Shipping Act, the relevant applicable legal instrument is, as amended by subsequent United Kingdom Legislation, the **1996 Protocol to the Limitation Convention**.

38. For the purposes of this judgment, the material difference between these two instruments is the limit of liability that can be claimed in respect of damage caused by a ship. The 1996 Protocol which came into force in the United Kingdom on 13 May 2004, substantially increases the limit of liability for all tonnages of vessel. According to the defendants, if the 1976 Convention applies to the instant claim, the maximum recoverable damages from the defendants will be limited to **US $2,009,347.49** and that if the 1996 Protocol amending the 1976 Convention applies, the maximum damages would be US $4,812,808.36 (see first affidavit of Arie Bijl dated 27th January 2009).

39. During the rest of the hearing, after the admission of liability by the defendants for the **Westerhaven's** damage to the Belize Barrier Reef, the principal issue left in contention between the parties was the issue of the quantification of the damages due the claimant.

40. Central to this is the issue of the **limitation of liability by a defendant** in a claim *in rem*. The history of the limitation of liability for maritime claims is relatively of some vintage. Dr. Lushington (the renown English admiralty judge) in **The Volant (1842) W. Rob., 383** at p. 387 sketched some of the history; and Lord Denning MR in **The "Bramley Moore" (1963) 2 Lloyds Rep. 429 (C.A.) (1994) P.D. 200** stated at p. 220*: "… limitation of liability is not a matter of justice. It is a rule of public policy which has its origins in history and its justification is convenience"*, in outlining the rationale underlying limitation of liability. The origin of the concept has however been described as obscure, but it was introduced into English law by the Responsibility of Ship-owners' Act, 1733 which was necessitated by the decision of the English Court in **Boucher v Lawson 95 E.R. 73**. In that case, a ship-owner was held liable for a cargo of gold bullion stolen by the master of his ship: see generally, **Admiralty Jurisdiction and Practice 3rd Ed. (2003)** by Nigel Meeson, at pp. 241 to 242.

41. It is undoubted that there is today a recognized right to limit liability for claims against ships in the interest of international trade and commerce. The matter is today, governed by international instruments which are given effect in the domestic laws of most states.

42. For Belize, whose admiralty jurisdiction is an off shoot of the English admiralty jurisdiction and practice, the issue of limitation of liability for maritime claims, was dealt with in a piggy-back fashion, by reference to the United Kingdom Merchant Shipping Act 1894. Section 62 of the

Harbours and Merchants Shipping Act – Chapter 234 of the Laws of Belize accordingly provides as follows:

> *"62. All matters for which provision has not been made in this Act, shall be dealt with under the provisions of the Merchant Shipping Act 1894, and any Act or Acts amending it."*

43. The English Merchant Shipping Act, 1979 expressly incorporated by its section 17(1) the **1976 Convention on Limitation of Liability for Maritime Claims**. As I have noted at para. 36 above, this Convention was made applicable in Belize by the United Kingdom Statutory Instrument 1980/1509.

44. It is however, contended for the claimant that because the 1979 United Kingdom Merchant Shipping Act was repealed and replaced by section 185 of the United Kingdom Merchant Shipping Act 1995, which although continuing the 1976 Convention in force in the United Kingdom, provides for Orders in Council by Her Majesty to reflect its revision by the Protocol of 1996 (The 1996 Protocol revising the 1976 Convention), it is therefore urged for the claimants that it is the 1996 Protocol that is now applicable in Belize in actions for limitation of liability in maritime claims.

45. Having listened carefully to both Ms. Deanne Barrow for the claimant and Mr. Michael Young SC for the defendants, I am persuaded that Mr. Young SC is correct when he submitted that for the purposes of the limitation of liability for maritime claims the operative instrument is the 1976 Convention. I am convinced and satisfied that whatever the position may be in the United Kingdom, and notwithstanding section 62 of Belize's Merchant Shipping Act, it is the 1976 Convention that now has the force of law in Belize. The authority for this proposition, if one were needed, is, I

think, to be found in section 3(1) of the **International Maritime Organization Act, 2008 – Act No. 17 of 2008**.

46. Section 3(1) of this Act provides in terms:

> *"Notwithstanding any other law, but subject to the provisions of this Act, the IMO Conventions and Protocols acceded to by Belize, as listed in the Schedule hereto, shall have the force of law in Belize."* (Emphasis added).

In the Schedule to the Act, the first Convention/Protocol listed is the **Limitation of Liability for Maritime Claims (LLMC) 1976** to which Belize had acceded on 31st January 1980.

47. Therefore, I find and hold that it is this 1976 Convention which for the purposes of limitation of liability for maritime claims in Belize, is operational and effective and the applicable instrument.

The Supreme Court (Civil Procedure) Rules 2005 on Admiralty Proceedings

48. The instant case is in the admiralty jurisdiction of the Court and therefore pursuant to Part 69.1, the Rules provided for in Part 69 of the Supreme Court Rules apply to this action.

49. However, I cannot help but observe that though the defendants expressly stated in para. 28 of their Defence and Counterclaim that they intended to apply to have the issue of limitation of liability tried as a preliminary issue, as I have mentioned at para. 24 above of this judgment, no such application was made. This is regrettable, as the issue of limitation of liability has, in the event, been the central focus of this trial.

50. The Rules clearly provide in **Rule 69.28** for limitation claims which are broadly define to ***mean "a claim by shipowners or other persons for the limitation of the amount of their liability in connection with a ship or other property."***

51. Part **68.28(1)** expressly states that Limitation may be relied upon by way of defence to any claim. The rest of the provisions of Rule 69.28 provide for how a limitation claim may be brought and the procedure for this and in the Forms annexed to the Rules (Forms 38 to 43) the format of a limitation claim and any limitation decree issued pursuant to it and the constitution of a limitation fund are set out.

52. None of this was done by the defendants in this case. As a result it was submitted on behalf of the claimant by Ms. Deanne Barrow that on a proper construction of sub-rules (1) (2) and (3) of Rule 69.28, a defendant wishing to avail itself of a plea of limitation must do so by the issue of a Limitation Claim Form (form 38 of the Forms annexed to the Supreme Court Rules).

53. The claimants however, did not take a formal objection and, as I stated at para. 36 above, the parties were content to contest the issue of limitation of liability in an open-ended fashion.

54. I can only conclude that in future in admiralty proceedings where a defendant seeks to avail itself of a limitation of liability by way of a defence, it would be preferable if the provisions of Rule 69.28 were utilized. But failure to do so, as in the instant case, does not, in my considered view, vitiate the right of a defendant to lay claim by way of a defence, or to rely on the right to limit a claim against it pursuant to the 1976 Convention on limitation of liability.

55. I therefore accept as correct, the submission by Mr. Young SC that the Supreme Court Rules in this regard are predicated on the assumption that the 1976 Convention is applicable in Belize. The 1976 Convention itself sets out a code, as it were, for the proper conduct and management of limitation claims. It provides for example in **Article 1** for the **persons entitled to limit liability**, which in the instant case clearly includes the defendants as shipowners and charterers of the **Westerhaven**; it provides in **Article 2** for **the types of claims** subject to limitation (this is at the centre of this case – more on it later), it provides in **Article 3** the claims that are not subject to limitation; and in **Article 4**, for the kinds of conduct that will disentitle a claim for limitation of liability; **Article 6** provides for the calculation of the limits of liability – generally with regard to the tonnage of the ship in question; **Article 8** provides for the unit of account to be the Special Drawing Right as defined by the International Monetary Fund which shall be converted into the national currency of the State in which limitation is sought; **Article 10** provides that limitation of liability may be invoked notwithstanding that a limitation fund has not been constituted; **Article 11** provides for the constitution of the Limitation Fund; **Article 12** provides for the distribution of the fund; and **Article 13** provides for the consequences of the constitution of a limitation fund under Article 11: it provides a bar to other actions by a person who has made a claim against the fund from exercising any right in respect of such a claim against any other assets of the person or on behalf of whom the fund has been constituted; and after the constitution of the fund for the ship or other property of the creator of the fund, if arrested or so attached, to be released either by order of court or other competent authority; and that such release shall always be ordered if the limitation fund that has been constituted in any of the places stated.

56. It is therefore undoubted that the 1976 Convention as an international instrument contains wide provisions for claims for limitation of liability

arising out of the operations of ships; and that Belize has incorporated this instrument into its domestic law.

57. I am mindful of the fact that the burden in seeking to disapply the limitation provisions of the 1976 Convention which operate in favour of a defendant shipowner, charterer etc. as defined in Article 1 of the Convention, is now on the claimant. Sheen J in **The Bowbelle (1990) 1 WLR 1330** I think, correctly, with respect, stated the position thus at p. 1335:

> *"I turn to consider the Convention of 1976, under which shipowners agreed to a higher limit of liability in exchange for an almost indisputable right to limit their liability. The effect of articles 2 and 4 is that the claims mentioned in article 2 are subject to limitation of liability unless the person making the claim proves (and the burden of proof is now upon him) that the loss resulted from the personal act or omission of the shipowner committed with the intent to cause such loss, or recklessly and with knowledge that such loss would probably result. This imposes upon the claimant a very heavy burden."* (Emphasis added).

Lord Phillips of Worth Matravers, MR (as he then was) as well stated in **The Leerort (2001) EWCA Civ 1055:**

> *"The limitation provisions* [of the 1976 Convention] *in relation to merchant shipping provide even greater protection than those in relation to carriage by air. It is only the personal act or omission of a shipowner which defeats the right to limit … Thus, to defeat the right to limit, it is necessary to identify the causative act or omission on the part of such a person that caused the loss. Furthermore, it is only*

conduct committed with intent to cause such loss, or recklessly with knowledge that such loss would probably result, that defeats the right to limit.'"

And see also, **The MSC Rosa M (2000) 2 Lloyd's Rep 399** at p. 401 per Steele J.

58. I am therefore satisfied that the defendants would have, pursuant to the 1976 Convention, an undoubted right to claim limitation of their admitted liability for the damage, subject to proof that the loss or damage, in this case to the Belize Barrier Reef, resulted from the personal act of the defendants committed with the intent to cause such damage or loss. This has not been claimed or averred against the defendants in this case.

59. **The crucial question therefore is: does the damage for which the claim is made in this case relating to the Belize Barrier Reef, come within the claims subject to limitation as provided for in Article 2 of the 1976 Convention?** If it does not, what is the proper or fair measure of damages for the claim?

Does the 1976 Convention apply to the instant claim?

60. In pressing the claim, the main thrust of the claimant is that its claim in this case, concerned as it is with injury to the environment and loss of use of the environment, does not, in any event, fall within the scope of either the 1976 Convention or the 1996 Protocol amending the former. It is therefore contended for the claimant that its claim is not one of the types of claims subject to limitation as provided for by Article 2 of the 1976 Convention. (It may be observed here that the provisions of Article 2 of both instruments are similar and could be referred to as a Common Article 2").

61. Article 2, which is common to both the 1976 Convention and the 1996 Protocol, provides as follows:

> **Article 2**
> **Claims subject to limitation**
>
> **1**
>
> **Subject to Articles 3 and 4 the following claims, whatever the basis of liability may be, shall be subject to limitation of liability:**
>
> **(a) claims in respect of loss of life or personal injury or loss of or damage to property (including damage to harbour works, basins and waterways and aids to navigation), occurring on board or in direct connection with the operation of the ship or with salvage operations, and consequential loss resulting therefrom;**
>
> **(b) claims in respect of loss resulting from delay in the carriage by sea of cargo, passengers or their luggage;**
>
> **(c) claims in respect of other loss resulting from infringement of rights other than contractual rights, occurring in direct connection with the operation of the ship or salvage operations;**
>
> **(d) claims in respect of the raising, removal, destruction or the rendering harmless of a ship which is sunk, wrecked, stranded or abandoned, including anything that is or has been on board such ship;**
>
> **(e) claims in respect of the removal, destruction or the rendering harmless of the cargo of the ship;**
>
> **(f) claims of a person other than the person liable in respect of measure taken in order to avert or minimise loss for which the person liable may limit his liability in accordance with this Convention, and further loss caused by such measures.**

2

Claims set out in paragraph 1 shall be subject to limitation of liability even if brought by way of recourse or for indemnity under a contract or otherwise. However, claims set out under paragraph 1(d), (e) and (f) shall not be subject to limitation to the extent that they relate to remuneration under a contract with the person liable.

The rival contentions of the parties

62. The applicability or inapplicability of this Article is therefore, in my view, central to the determination of the instant claim in these proceedings.

63. The parties have however, taken diametrically different positions on the applicability or inapplicability of Article 2 of the Convention to the claim in respect of the Belize Barrier Reef.

64. For the claimant it is urged that the damage or injury to the Barrier Reef does not fall within the claims subject to limitation as provided for in Article 2. The principal plank in the claimant's platform in this regard is that the Barrier Reef is not "property" as that term is ordinarily understood and used in Article 2 on claims subject to limitation. It is also submitted on behalf of the claimant that its claim does not fall within the ambit of any of the claims described in Article 2.1 (a) through to (f). In particular, it is submitted for the claimant that the collocation of the words "personal injury" and "damage to property" in sub-paragraph (a) of Article 2.1 of the Convention tends to show that the sub-paragraph deals with conventional concepts of physical damage and not damage to intangible ecological services as in the case of the injury or damage to the Belize Barrier Reef. Therefore, the contention runs on behalf of the claimant, that the examples of "harbour works, basins and waterways and aids to navigation" immediately following the word "property" in Article 2.1 (a),

indicate that by the *ejusdem generis* principle coral reef does not fall within the same genus or category as "harbour works, basins and waterways and aids to navigation."

65. It is also submitted for the claimant that injury to the marine environment by the destruction of coral reefs represents a unique species of environmental damage distinct and different from environmental damage caused by agents of pollution. The latter are covered by relevant international instruments such as the 1969 Convention on Civil Liability for Oil Pollution Damage. Reliance was placed on the Italian case of **Ministry of Internal affairs and others v Patmos Shipping Corporation International Oil Pollution Fund and others (1989) 4 International Environmental Law Reports, 288** for the wider ambit of pollution damages to cover both physical damage and intangible values of the environment.

However, Article 3 (b) of the 1976 Convention excludes claims for "pollution damage", which the instant case is not about.

66. Therefore, it is submitted for the claimant, the environmental effects of coral reef destruction is only **now** developing and receiving global attention and concern as exemplified by the inscription in 1996 of the Belize Barrier Reef as a World Heritage Reef Site and its 2009 inscription on the World Heritage in Danger List) (see para. 1 above of this judgment). Accordingly, it is urged that as global attention becomes more focused on the environmental effects of coral reef destruction, specific conventions are likely to develop from the maritime community. Therefore, it is further submitted tor the claimant that it is untenable for the defendants to argue that the 1956 Brussels Convention (the precursor of the 1976 Convention) or the 1976 Convention itself contemplates claims, such as the instant one, for the particular species of environmental

damage by the destruction of parts of the Belize Barrier Reef caused by the grounding of the **Westerhaven**.

67. For the defendants on the other hand, the principal contention is that the proper ambit of the Convention and in particular, its Article 2, covers **any** damage or loss occurring in "direct connection with the operation of the ship" save and except where such damage or loss is excluded by Article 3 of the Convention.

68. Article 3 of the 1976 Convention provides as follows:

> **Article 3**
> **Claims excepted from limitation**
>
> **The rules of this Convention shall not apply to:**
>
> **(a) claims for salvage, including, if applicable, any claim for special compensation under Article 14 of the International Convention on Salvage 1989, as amended, or contribution in general average;**
>
> **(b) claims for oil pollution damage within the meaning of the International Convention on Civil Liability for Oil Pollution Damage dated 29th November 1969 or of any amendment or Protocol thereto which is in force;**
>
> **(c) claims subject to any international convention or national legislation governing or prohibiting limitation of liability for nuclear damage;**
>
> **(d) claims against the shipowner of a nuclear ship for nuclear damage;**
>
> **(e) claims by servants of the shipowner or salvor whose duties are connected with the ship or the salvage operations, including claims of their heirs, dependants or other persons entitled to make such claims, if under the law governing the contract of service between the shipowner or salvor is not entitled to limit his liability in respect of such claims, or if he is by such law only**

permitted to limit his liability to an amount greater than that provided for in Article 6.

69. Accordingly, it is submitted for the defendants that the damage to the Barrier Reef from the grounding of the **Westerhaven** occurred **in direct connection with the operation of the ship Westerhaven** and therefore the Convention applies to limit their liability to the extent prescribed in accordance with the registered tonnage of the ship. That is to say, the claim in the instant case is not within Article 3 (on claims excepted from limitation), but rather, it falls within the provisions of Article 2 and therefore the defendants' admission of liability is subject to limitation.

70. It is further submitted for the defendants that from the history of limitation conventions in relation to sea going vessels and from the wording of the 1976 Convention itself, coupled with the policy rationale for giving a broad interpretation to the Convention, it should cover the instant claim involving environmental damage.

71. It is also submitted for the defendants that even if the Barrier Reef is not "property" within the contemplation of Article 2.1 (a) of the 1976 Convention and therefore not strictly subject to limitation of liability for injury to it, any resultant damage thereto however, would be covered by Article 2.1 (c) and therefore subject to limitation of liability as it would cover:

> *"(c) claims in respect of other loss resulting from infringement of rights other than contractual rights occurring in direct connection with the operation of the ship or salvage operation."*

Determination

72. I now turn to a determination of the rival contentions of the parties regarding the provisions of the 1976 Convention on claims subject to limitation as contained in Article 2 of the Convention. It is, of course, the position that it is only the claims mentioned in this Article that can be the subject of limitation. I am mindful as well that the Convention has to be read as a whole in determining the true purport and reach of Article 2.

73. It has, I think, with respect, been correctly stated that in considering whether a claims falls to be limited by the Convention, it is vital to look at the **nature of the claim**: as Thomas J stated in **The Aegean Sea (1998) Vol. 2 Lloyd's Rep. 39** *"… a court in considering a claim* ***must look to the nature of the claim rather than its legal basis****; this* (is) clear *from the words of Art. 2.1.* "Whatever the basis of liability may be", **In Caspian Basin Specialised Emergency Salvage Administration v Bouygoes Offshore SA (1997) 2 Lloyd's Rep. 507**, Mr. Justice Rix expressed the principle in these terms at p. 522:

> *"… this approach is confirmed by the Convention's wording "whatever the basis of the liability may be".* ***That language enforces concentration on the nature of the claim for financial relief*** *and away from the legal basis of the claim"* at p. 51. (Emphasis added): and Meeson *op cit* at para. 8.48 pp. 255 – 256.

74. In **The Aegean Sea** supra, the court held that a claim for the loss of freight as a result of the loss of the ship was a claim for the infringement of contractual rights and thus was not within Article 2.1 (c); and that a claim by shipowners for the loss of the ship against charterers was not loss of

"property" "in connection with the operation of the ship" because it is the operation of the very ship that must cause the loss of property; the ship itself cannot be the object of the wrong.

75. I have, I trust, sufficiently set out in this judgment the **nature** of the claim in this case: it is a claim for damage and injury to an important part of the ecology of the country, namely the Belize Barrier Reef (see in particular, paras. 4 to 9 of this judgment for a description of the subject-matter of the claim and the injury and possible effects on it by the grounding of the **Westerhaven**).

76. I must, in the circumstances, ineluctably agree with the claimant that the nature of the claim in this case is *sui generis* and is not easily or readily susceptible to limitation of liability in respect of damage or injury to its subject-matter, the Belize Barrier Reef under the provisions of Article 2 of the Convention on claims subject to limitation.

77. I am fortified in this conclusion because from a close perusal of the claims that are subject to limitation of liability as provided in Article 2 of the Convention, it is not easy to subsume the claim in this case under any of the provisions of that Article in paras. (a) to (f).

78. In the first place, I think it should be manifest that the instant claim cannot be put under paras. (b), (d), (e) and (f) of Article 2 which relate respectively to claims in respect of loss resulting from delay in the carriage by sea of cargo, passengers or their luggage; it is not a claim in respect of the raising, removal, destruction or the rendering harmless of a ship which is sunk, wrecked, stranded or abandoned, including anything that is or has been on board such ship; it is also not a claim in respect of the removal, destruction or the rendering harmless of the cargo or the ship; and it is not a claim of a person other than the person liable in respect of measures

taken in order to avert or minimize loss for which the person liable may limit his liability under the Convention, and further loss caused by such measures.

79. This leaves for consideration paras. (a) and (c) of Article 2.1.

80. It is the principal contention for the defendants that the claim is really about a claim for damage to property, albeit, it is the Belize Barrier Reef, and therefore their liability is subject to limitation as such claim falls within para. (a) of Article 2.1. They submitted further that even if the claim is not within para. 2.1(a) relating to damage to property which they deny, it would in any event be covered by Article 2.1(c) relating to claims in respect of other loss. They relied on a dictum by Thomas J in **The Aegean Sea supra** at p. 40 where the headnote of the report states that *"pollution claims also fell within Art. 2(1)(c) since such losses did occur in direct connection with the operation of the ship as they occurred either because of the decision to order the vessel to go to an unsafe port or because of the way the vessel was navigated."*

The instant case however, is not a pollution claim case.

81. In the second place, I have, however, after some anxious reflection come to the conclusion that given the **nature** of the claim in this case, it cannot properly or reasonably be subsumed under either paras. (a) or (c) of Article 2.1 of the 1976 Convention. I am driven to this conclusion by an analysis of the types of claims that could fall under either of these two paragraphs.

82. **Article 2.1 (a)** is, I find, concerned with three types of claim: (i) loss of life or personal injury; (ii) loss of or damage to property; and (iii) consequential loss resulting therefrom. In so far as consequential loss is concerned, the

loss must result from or be caused by (that is, be consequent on): (a) loss of life or personal injury; or (b) loss of or damage to property. Also, the loss may be: (a) further loss of life or personal injury; (b) further loss of or damage to property; (c) financial loss resulting from loss of life or personal injury; or (d) financial loss resulting from loss of or damage to property. These types of losses may be characterized as **"concrete"**, that is, loss of life or personal injury and loss of or damage to property, and **"abstract"**, that is, financial loss flowing from a **"concrete"** loss.

83. **Article 2.1(c)** on the other hand deals solely with **"abstract"** loss not covered by Article 2.1(a). This is because it deals with **other loss**, that is, loss other than of the type covered by Article 2.1 (a). However, Article 2.1 (c) covers **only** claims in respect of **other loss resulting from infringement of rights that are not contractual** resulting in direct connection with the operation of a ship or salvage operation.

[I am grateful for this analysis from the judgment of Finkelstein J of the Federal Court of Australia, New South Wales and Queensland District Registries in **The Ship "APL Sydney"**, delivered on 25th September 2009, which Mr. Young SC for the defendants graciously made available to me during the hearing of the instant claim.]

84. I had at para. 76 of this judgment stated that the instant claim is *sui generis*, relating as it is, to injury to the Belize Barrier Reef and the loss of associated ecological services. It cannot therefore, in my considered view, be equated with "property" *simpliciter*. There is no ownership of the Barrier Reef as such in the proprietary sense, notwithstanding the initial grandiloquent description "as owner" of the claimant. In truth, the Barrier Reef is part and parcel of the national patrimony of Belize, whose inscription by UNESCO on the List of its World Heritage Sites imbues it with an international dimension not readily attributable to any other kind of

property. This makes it a site of outstanding natural value and importance to the common heritage of humanity. There is really no market for the Belize Barrier Reef. But its ecological value is inestimable. It is therefore difficult to comprehend it within the concept of "property" as that word is ordinarily understood.

85. I do not therefore think that either paragraph (a) or (c) of Article 2.1 of the 1976 Convention is directly applicable to limit liability in respect of claims for injury or damage to the Belize Barrier Reef. This is so because I find, the Barrier Reef is not "property" for the purposes of the limitation of liability for claim in respect of it. I also find and hold that a claim, as the instant one, for damage and injury to the environment as a result of the grounding of the **Westerhaven** on the Barrier Reef, is not a "claim in respect of **other loss** resulting from infringement of rights other than contractual rights." It is a claim that is clearly *sui generis* and does not flow from infringement of rights whether or not contractual. It is clearly a claim in respect of the ecology of the Barrier Reef and of the marine environment.

86. From all this, I am not satisfied or convinced that the damage or injury sustained by the Belize Barrier Reef as a result of the grounding of the **Westerhaven** on it could readily be subsumed under the provisions of the 1976 Convention on the Limitation of Liability for Maritime Claims.

87. No doubt, the injury or damage was inflicted in connection with the operation of the ship **Westerhaven**. But I am satisfied that given the **nature** of the subject-matter affected, the Belize Barrier Reef, it is not within the class of claims which could be subject to limitation.

88. Belize Barrier Reef is composed mostly of corals. Coral reefs are regarded as the largest living animal colony on earth. Reefs, whether soft

or stony, flat or round, are made of living animals called coral polyps. These polyps form a thin fragile layer of life that covers the limestone base of the reef. Coral that is damaged in a matter of minutes can take several human generations to be repaired.

89. It is therefore pertinent to observe that in evidence at the trial, even the experts called by both sides insisted that given the nature of the damage sustained by the Belize Barrier Reef from the grounding on it of the **Westerhaven**, it is really more accurate to describe and refer to the damage as "injury" to the Barrier Reef because the reef is a living organism. For example, in his comments on the Report entitled "Westerhaven Ship Grounding Reef Health Assessment (Caye Glory)" [referred to at paras. 10 to 13 of this judgment], Mr. Richard Shaul, the expert witness for the defendants, stated at page 3:

> *"It should be noted that assessment protocol generally distinguishes between "damage" expressed in monetary terms and* ***"injury"*** *expressed in terms of resource impairment hence … reference is actually to* ***"injury"****. The types of i****njuries*** *found at the grounding site were broadly described in the Report, but were not classified into separate types nor more fully characterized or quantified.* (See **RS 3** which was put in evidence). (Emphasis added).

90. Also, in their joint report (referred to in para. 9 of this judgment), Messrs. Jaap and Watkins, the two experts who testified for the claimant stated in describing the methodology they employed in measuring the extent of the area of the Barrier Reef affected by the grounding of the **Westerhaven** as follows:

> *"We measured the perimeter of the **injury** area with a floating GPS system that we towed. A Gamin™ Colorado 400 C hand-held GPS with a Blue Chart (MUS031R Western Caribbean data card) installed in the card slot was placed in a water-resistant bag and mounted step atop a 27 inch long "Rescue Can" (Kiefer part number 6200434). A diver's cave reel was attached to the rescue can leash. The GPS float was towed slowly **around the injury perimeter and the area of catastrophic injury**."* (Emphasis added).

See pp. 4-5 of their Report which was also put in evidence.

91. Moreover, in answer to a direct question by me why the term "injury" is used in relation to the Barrier Reef, Mr. Jaap stated that "injury" is the term used for damage to coral reef.

92. I realize of course that the object of the 1976 Convention is to provide protection and encouragement for investment in shipbuilding and for shipowners to facilitate international trade and it should be broadly and liberally construed. But this has, in my view, to be put along side the need to protect vital and fragile ecological systems and resources such as barrier reefs. There can be little doubt that these ecologies and ecosystems need protection and they should not be sacrificed to other interests. They contain precious, vital and irreplaceable ecological and other resources that cry out for attention and protection. If liability for damage, injury or loss of these ecologies and ecosystems should be limited, it is my respectful view that this should be the subject of either domestic legislation and or incorporated international instruments.

93. In conclusion, though the instant claim is not within the types of claim in respect of which, by Article 3 of the Convention, are excepted from

limitation, I find as well that there is no proper basis for subjecting it to limitation. I am fortified in this view by the consideration that the claims excepted from limitation in Article 3, all have specialist regimes for their treatment. The claimant's claim in this case on the other hand, has no such regime; and as I have found, it is not easily or readily amenable to limitation of liability within any of the provisions of Article 2 of the Convention. In my respectful view, even though the Convention, as I have recognized at paras. 55 and 56 of this judgment, is seemingly wide in its reach in respect of claims which can be subject to limitation of liability, it does not I find however, limit **all** and **every** claim that could arise in connection with the operation of a ship.

94. I therefore conclude that the instant claim, for the reasons I have stated, is not a claim in respect of which there can be a limitation of liability by the defendants pursuant to the provisions of the 1976 Convention.

Assessment and qualification of damages/compensation in this case

95. I had stated at para. 3 of this judgment that the principal issue in this case after the question of the applicability of the 1976 Convention, is the assessment and quantification of damages resulting from the grounding of the **Westerhaven** on the Belize Barrier Reef.

96. I now turn to an assessment of the damages in this case. I have at para. 19 of this judgment set out particulars of loss, damage and expense being claimed. These particulars, in their paragraph A, I think, more tellingly demonstrate the **nature** of the claim in this case stemming from the grounding of the **Westerhaven** on a part of the Belize Barrier Reef. The claimant has pleaded that this resulted in:

A. Damage and injury to the environment and loss of use of the environment including:

(i) Loss and damage to habitat for fish, invertebrates, and plants and associated commercial fisheries value

(ii) Loss of protection against erosion and storm surge

(iii) Loss of biodiversity

(iv) Loss and damage to tourism, recreational and aesthetic and cultural value

Value of environmental and ecological loss and damage: $5,400.00 per square metre of injured reef

Total environmental and ecological loss and damage: $31,080,000.00.

97. On this aspect of the instant case, I think the starting point was, with respect, correctly stated, by Lord Blackburn in **Livingstone v The Raywards Coal Co. (1880) 5 AC 25**, at p. 39 *"I do not think there is any difference of opinion as to its being a general rule that, where any injury is to be compensated by damages, in settling the sum of money to be given for reparation of damages you should as nearly as possible get the sum of money which will put the party who has been injured, or who has suffered, in the same position as he would have been in if he had not sustained the wrong for which he is now getting his compensation or reparation."*

98. Damages should, in general, be restricted to compensation for loss. That is what damages are all about – damages are for damage, *dannum* in Roman Law, *dommage* or *dommage interest* in French Law. This is the underlying basis of the law of damages.

99. This is no doubt, a restatement of the principle of *restitutio integrum*: restoration to the previous condition.

100. It is common ground that the claim in this case raises novel and complex issues of assessment of damages. But the general principle of damages is not in doubt. This has been defined as follows: *"Damages are the pecuniary compensation obtainable by success in an action, for a wrong which is either a tort or a breach of contract, the compensation being in the form of a lump sum awarded at one time unconditionally and generally.* – McGregor on Damages 16th Edition at p. 1 and per Lord Hailsham LC in **Broome v Cassel & Co. (1972) AC 1027** at 1070E.

101. However, because of the novelty of the instant claim, being the first of its kind in this jurisdiction in which a claim is being pressed for injury/damage to the Belize Barrier Reef, and there being no locally available precedent as to how to assess any awardable damage, I had on 6th July 2009, granted each party leave to call its own expert witness on the issue of damages.

102. Messrs. Jaap and Watkins put in a witness statement in this regard for the claimant and later testified at the trial. Their joint statement is dated 19th May 2009. Attached to this is their Report dated 15th May 2009, annexed as **Exhibit 2**. This report (already referred to at para. 9 of this judgment) in addition to describing the nature and extent of the injury to the Barrier Reef resulting from the grounding of the **Westerhaven**, also contains an assessment of the area of injury and the value of the damage and the method used to assess the damage.

103. Mr. Walter Jaap is a benthic-ecologist and Lithophyte researcher specializing in coral reef ecology, scleractinian systematics and taxonomy.

He is now retired after thirty-five years work experience with the Florida Fish and Wildlife Conservative Commission's Fish and Wildlife Research Institute and is now a adjunct professor at that University of South Florida's College of Marine Science. Mr. Jaap has wide experience and background in coral reef survey, salvage operations, assessment of damages, restoration, transplanting organisms, and post-restoration monitoring. His experience includes work in Florida, Hawaii, Cayman Islands, Honduras, Nicaragua, US Virgin Islands, Palau, Australia, the Dominican Republic and the Middle East. He has also contributed to a handbook on coral reef restoration published by the State of Florida. He has also extensive experience in testifying in US Federal Court as a coral reef technical expert.

104. Mr. Jaap's co-author of the report entitled **Motor Vessel Westerhaven Grounding Report**, tendered in this case is Mr. Herbert Ed. Watkins. Mr. Watkins has over 30 years experience in engineering and project management. His practical experience includes work as the senior environmental inspector and engineer for the Gulf Stream Phase 1 Project which involved evaluating depth-of-burial surveys, design and supervision of the placement of over 11200 tons of limestone rock on the pipeline in depths of water ranging from 50' to 120'. He has also managed projects in the Middle East, Central America and the USA.

105. Both Mr. Jaap and Mr. Watkins in addition to their witness statements to which was annexed to their report (referred to in paras. 9, 90 and 102 of this judgment) also testified as experts on the assessment of damages in this case and were cross-examined for the defendants.

106. In their report, Messrs. Jaap and Watkins state in relation to the area of injury to the Belize Barrier Reef, the nature and extent of the damage

thereto and, importantly, in their estimation or assessment of the monetary damages state as follows in their Executive Summary of the report:

- *The Motor Vessel Westerhaven ran aground on a coral reef in the Cay Glory Marine [reserve, Belize (position: 17°05.113N', 087°59.419W').*

- *The resources in the impacted area include the relief spur and groove system and the barrier reef, composed of the elkhorn coral (Acropora palmata), lettuce coral (Aguricia tenufolia), mustard hill coral (Porites asteroids), and the fire coral (Millepora complanata).*

- *Coral cover in the adjacent non-impacted area ranged form 4 to 20%.*

- *Coral cover in the impacted area ranged form 0 to 1.4%*

- *Several of the spur formations were excavated away by the Westerhaven's hull.*

- *Injuries were catastrophic in the context of loss of organisms and reef structure.*

- *Injury area based on GPS information processed with GIS technology; reported 6,418 m^2 and 1,674 m^2 was devastated by hull crushing.*

- *The predications are that recovery will require 500 years or longer to return to baseline (pre-injury) status.*

- *Because of the severe environmental conditions (winds, waves, depth, proximity to the reef crest), it would be extremely challenging to attempt a restoration project at this site.*

- *Habitat equivalence Analysis (HEA) based on the area of injury, 500 years to recover to baseline status, Ecological Service (ES) level set at 1.5% in 2009 results in a compensatory requirement of 188.191 m^2. Monetary (USA$) equivalent based on marine construction cost of $100 m^2 is $18,819,100.*

- *Final settlement should include all costs (recovery of expenditures, compensatory actions, monitoring, and oversight administration, so that the total should be in the range of $19 million (USD).*

107. I should point out also that basing itself on awards complied by Jeffrey Weilgus in his study (referred to at para. 14 of this judgment), the Fisheries Department had, in what is described as a "conservative" reef value of US $2,700.00 per square metre, calculated the claim for damages in this case at US $26,952,963.00 for a total damaged area of 18,519.6[2] (see Table 2 of Exhibit A to Dr. McField's expert witness statement and para. 44 thereof).

108. For the defendants on the other hand, Mr. Richard Shaul was presented as the expert witness; he was engaged by the owners of the **Westerhaven** to carry out an assessment of the damage caused by the ship's grounding on the Barrier Reef. Mr. Shaul is the president and founder of the Sea Byte Inc, a marine environmental consulting firm specializing in coral reef restoration. He is a qualified professional marine biologist and environmental consultant. He has over twenty-five years experience working as an environmental scientist and coral reef ecologist with experience of working in the Gulf of Mexico, Atlantic and Pacific oceans, the Caribbean Sea, Red Sea and Alaska. He developed techniques and tools which are used today for conducting marine mapping and documentation studies, particularly for those related to natural resource damage assessment.

109. Mr. Shaul made a witness statement on behalf of the defendants. He also testified at the trial and was cross-examined by Ms. Barrow for the claimant. He was engaged to carry out an assessment of the damage caused to the Barrier Reef by the grounding on it of the **Westerhaven**. In pursuance of this, Mr. Shaul's company, Sea Byte Inc., prepared an **Injury Assessment Report** dated 4th June 2009, entitled ***M/V Westerhaven Grounding off Belize***. This was exhibited to Mr. Shaul's witness statement as **Exhibit RS 2** and was tendered in evidence. Also tendered in evidence as **Exhibit RS 3** were **Comments on Report Prepared by**

Government of Belize regarding Coral Reef Injuries Sustained as a Result of the Grounding of the M/V Westerhaven.

110. I must state that I found the expert witnesses for the parties in this case eminently qualified and impassive, but as to be expected of experts' testimony, they do not exactly agree on all scores.

111. In the first place, there is no estimate or assessment in monetary terms of the damages in this case from the defendants. In none of the materials put in for the defendants is there, in monetary terms, an estimate of the admitted damages by the defendants.

112. Instead, there is put in evidence as **Exhibit RS 4 M/V Westerhaven Grounding Site, Belize, Proposed Plan for Coral Reef Restoration**. This is a proposed plan for restoration of the reef damage which Mr. Shaul stated in his witness statement he formulated at the defendants' request. It is however contended for the defendants that this is a more reliable assessment of the damages in this case as the issue is one of restoration of the reef and the costs of such restoration.

113. In the **Proposed Plan for Coral Reef Restoration**, is set out how the exercise of restoration could be carried out and the costs of the exercise are given in Table 1 of the report as **US $2,500,000.00**.

114. In the second place, the defendant's expert takes issue with the spatial extent of the area of the reef damaged as the basis for the damage assessment of nearly US $27 million as stated by the Fisheries Department. In the report for the claimant, the total area damaged at the site of the grounding is stated to be **18,520 m^2** of which 7,332 m^2 was said to be damage in the "core" area and 11,187 m^2 in the "non-core" area. In the **comments** the defendants criticize the claimant's experts for not using

a more comprehensive scientific evaluation of the injuries (that is damage sustained in the area of the ship's grounding).

115. It is therefore claimed for the defendants that "(b)*ased on its state of the art methodology, Sea Byte* (the defendants' corporate expert) *found that the total area impacted by the grounding was* ***5.343 m²***."

116. This, of course, is significantly less than the total area of damage or injury claimed for the claimant by its own experts.

117. However, the most fundamental difference between the parties is the method of assessing the monetary value of the damage/injury to the Barrier Reef.

The Claimant's quantification of the damages

118. In its pleaded claim for damages to the Barrier Reef, the claimant puts the value of environmental and ecological loss (inclusive of loss and damage to habitat for fish, invertebrates and plants and associated commercial fisheries value; loss of protection against erosion and storm damage; loss of biodiversity; and loss and damage to tourism, recreational and aesthetic and cultural value), at **$5,400.00** per square metre of injured reef. It therefore claims for total environmental and ecological loss and damage the sum of **$31,080,000.00**. This works out as **5,755.5** square metre of reef damage.

119. This total area of reef damage claimed by the claimant in its statement of case is closer to the area the defendants' own expert say was impacted by the grounding of the **Westerhaven**.

120. I cannot help noticing that from the materials put before this court, the claimant's own experts had estimated the total monetary damages claimable for the grounding varied: first, in the expert Fisheries Department Report exhibited to Dr. McField's witness statement, the estimated monetary value of the damage was **US $26,952,693.00** using a value of US $2,700.00 per square metre of total area of reef damage of 18,519.6 m^2 (see para. 14 of this judgment; it may be noticed that the figures do not really match).

121. Also, the claimant's other experts, Messrs. Jaap and Watkins in their report estimated, using **Habitat Equivalency Analysis (HEA)** based on area of reef injury and 500 years of recovery, that for a compensatory requirement of 188,191 m^2 the monetary equivalent based on marine construction cost of US $100 m^2 is **US $18,819,100**. (See para. 106 of this judgment).

122. The claimant has however in its pleaded case claimed **$31,080,000.00** using the figure of **$5,400.00** per square metre of area of reef for which the damage is claimed. It may be noticed that this multiplier of **$5,400.00** translates into **US $2,700.00**: the same multiplier used in the Department of Fisheries estimate of the monetary value of the damage (see para. 14 of this judgment).

123. This multiplier of **$5,400.00** per square metre of reef damage is said to be inspired by a study by Jeffrey Weiglus entitled ***General Protocol for Calculating the Basis of Monetary Legal Claims for Damages to Coral Reefs for Vessels Groundings and an application to the Northern Red Sea*** (Jerusalem, August 2004): See, in particular, paras. 40 to 44 of Dr. McField's witness statement.

Habitat Equivalency Analysis (HEA)

124. it is common ground that this is the basis used by the claimant for calculating, in monetary terms, the damage to the Belize Barrier Reef in this case.

125. The defendant's experts do not readily accept this as directly applicable for the assessment of damages to the coral reef in this case. (See in particular the **Comments** in **RS 3** at p. 9 and following on "Damage Assessment".)

126. It is also common ground between the parties that there is no universally accepted protocol or set of procedures that is used globally to determine an appropriate claim for damages to coral reefs caused by vessel groundings. However, as the defendants' own expert concede *"… the most widely accepted approach utilizes protocol established in the US during the 1990s to conduct a Natural Resource Damage Assessment (NRDA)"*. (See defendants' experts' **Comments** at p. 9).

127. This is a direct reference to the **Habitat Equivalency Analysis (HEA)** developed, informed and driven by US legislation. As Weiglus states in his study, *loc cit* at p. 15 under the rubric:

> *Approaches to charging for Coral Reef Damage*
>
> *1. The United States*
>
> *The United States legislation for the protection of natural resources is unique in that it adduces both the restoration of lost ecological services and the lost economic value of natural resources in the assessment of*

charges for damage … There are two legal statutes that cover physical injuries caused to marine resources: The Marine Protection Research, and Sanctuaries Act (MPRSA), and the National Parks Systems Resources Act (NPSRPA) …

Weilgus *ibid* goes on to state at p. 17 as follows:

'The NPSRPA was enacted by the Congress of the United States in 1990 partly in response to a catastrophic ship grounding on a coral reef in a national park in Florida. Its purpose is to enable the United States government to initiate legal action against individuals who damage or destroy marine resources within the National Park Systems and to allow for the recovery of funds for the prompt restoration or replacement of the affected resources."

128. The United States National Oceanic and Atmospheric Administration (NOAA) using the relevant US legislation instituted a Damage Assessment and Restoration Program (DARP) which is responsible for generating guidelines for natural resource damage assessment. DARP has developed a method called Habitat Equivalency Analysis (HEA), by which the amount of compensatory restoration of damaged natural resources is calculated … HEA is consistent with the "replacement cost' method of economic valuation; its goal is to estimate the quantity of restored resources that will compensate for the loss of services from the time of injury until the damaged resources recover to baseline levels (interim losses" – Weiglus *ibid*.

129. This is the reason why in their written reports and oral testimonies all the experts nearly agreed that HEA is an appropriate methodology of assessing the damages in this case.

130. However, helpful and instructive as the HEA may be for the assessment of damage to the Belize barrier Reef, I am constrained from accepting it for the simple reason that it is premised on legislation that has no parallel in Belize.

131. Weiglus in explaining the experience of other countries states at p. 19, *loc cit*:

> *"In Australia, the Great Barrier Reef Marine Park Act 1975 orders any damage to the Park arising from a vessel grounding to be repaired, mitigated or remedied by the responsible party, or the costs be paid by the responsible party."*

132. Regrettably, there is no comparable legislation in Belize to that of the USA on which the HEA is based or the Australian legislation regarding its Great Barrier Reef.

133. This is not to say that the Belize Barrier Reef is totally bereft of protection from injury to it caused by ships running aground on it or other damage to the Barrier Reef. It would seem that the certain and preferred route however, is through the criminal law. For example, even in the recent legislation on protecting the environment – The Environmental Protection (Amendment) Act – No. 5 of 2009, for the first time, makes damage to the Belize Barrier Reef a criminal offence.

134. It is the court's view that a page could be borrowed from other countries, particularly from the USA, with its HEA, for the assessment of damage to the nation's natural resources including its Barrier Reef.

Assessment of damages in the instant case

135. Even though I feel constrained from using the HEA as the basis for determining the damages in this case as claimed by the claimant; I feel compelled however, given the rationale and purpose of damages (as I have stated at paras. 97 to 99 of this judgment) to address and resolve the claim of the claimant in this case.

136. I accept as correct as Ms. Barrow submitted for the claimant based on the decision of the Canadian Supreme Court in **British Columbia v Canadian Forest Products Ltd (2004) 2 SCR 74**, that claims for environmental and ecological losses ought not to be strangled by technical objections to novel methods of assessment of damages, so long as there is fairness to both sides; and that the difficulty of estimating damages accurately in an environmental claim ought not to relieve the wrong doer of responsibility to compensate for the injury caused; and that a claimant should make use of an appropriate valuation methodology which is based on reliable measurement and suited to the environmental loss in question.

137. But in the instant case however, I find myself unable to accept fully the quantification of the claimant's damages based on exclusive reliance on HEA. My uncertainty or inability is based on the conflicts between the expert witnesses as to the difficulty of estimating the damages accurately in this case.

138. The claimant claims the sum of **$5,400.00** per square metre of damage to coral reef and a total of **$31,080,000.00** for environmental and ecological loss and damage.

139. I have noted the novelty and complexity of this claim. This is not a bar in itself. I feel, however, that given the fact that it is the first claim of this nature and without the assistance of relevant and applicable legislation, it would in the circumstances be reasonable and fair to award the claimant the sum of **$2,000.00** per square metre; and given that the claimant is making a claim in respect of only **5,755** square metre of reef damage, this makes a total of **$11,510.000.00**. I take into consideration that though belated, the defendant in the event did not contest the issue of liability.

140. The rationale for the award of damages in this case is that I am convinced that even without supportive legislation the common law has the potential and ability to develop, even if incrementally, a remedial approach to assist in the realization of the fundamental value of environmental protection by an award of damages that is fair and proportionate.

141. The assessment and award of damages is not itself an exact science.

This is what informs my award in this case as I am unable because of conflicts even in the claimant's own expert testimony, as to the damages claimable in this case. Equally also the defendants' expert estimate of the costs of restoration works out more in terms of square metre than the claimant's claim.

In the absence of any statutory help, I have decided to award $2,000.00 per square metre for the area of coral reef the claimant is claiming for as I believe this sum to be fair and proportionate.

142. I accordingly award the sum of **$11,510,000.00** to the claimant in respect of environmental and ecological loss and damage to the Belize Barrier Reef caused by the defendants.

143. I award as well, the sum of **$9,047.00** claimed by the claimant as expenses incurred in responding to the grounding of the **Westerhaven** on the Belize Barrier Reef.

144. Because this is a claim in admiralty, I award as well interest on the damages in this case at 3% from 14 January 2009 until payment See **The Northumbria (1869) LR 3 A & E 6**; **The Dundee (1827) 2 Hagg. Adm. 137** and **The Amalia (1864) 5 New Report 164 n**.

145. I award the costs of these proceedings to the claimant, to be agreed or taxed.

Conclusion

146. In conclusion, I find, hold and order as follows:

(i) The relevant and applicable treaty applicable in Belize for claims for the limitation of liability in maritime claims is the 1976 Convention on the Limitation of Liability for Maritime Claims.

(ii) The instant claim in these proceedings is not within Article 2 of the Convention on Claims subject to limitation.

(iii) I award the sum of **$11,510,000.00** to the claimant in respect of the damage to the Belize Barrier Reef.

(iv) I also award the sum of **$9,047.00** to the claimant for expenses incurred in responding to the grounding of the **Westerhaven** on the Belize Barrier Reef.

(v) I award as well interest at the rate of 3% per annum in respect of iii) and iv) above.

(vi) The costs of these proceedings are awarded to the claimant, to be agreed or taxed.

The claim has been in respect of damage to the Belize Barrier reef which is composed mostly of corals. Before partying with this judgment I thought it would be fitting to note a paen I recently came across on the Belize Barrier Reef:

> ***"Coral reefs, it has been said, are visual poems, filling a diver's sense of sight with form, color and patterns. If so, Belize is a master poet, and the Belize Barrier Reef is an epic of colossal proportions. At 185 miles (300 km) in length, dotted with around 200 cayes, the Belize Barrier Reef is the second largest in the world after Australia's Great Barrier Reef, while the variety of reef types and marine life within its borders is unequaled in the northern hemisphere."*** *Belize (a part of Insight Guides) by APA Publications in collaboration with Discovery Channel) first published in 1995 and reprinted 2009, p. 103.*

Finally, I cannot over-emphasize the need to protect the Belize Barrier Reef and the importance of putting on a legislative basis the assessment of damages for injury to it.

A. O. CONTEH
Chief Justice

DATED: 26 April 2010.