

SMALL DEVELOPING ISLAND NATIONS: THE NEED FOR INCREASED FINANCIAL PROTECTION FROM BUNKER OIL SPILL POLLUTION

INTRODUCTION

Imagine that you are sitting in your car in the middle of a parking lot. Through no fault of your own, a truck, owned by a major corporation, crashes directly into you, causing \$1 million worth of long-term damage. In the United States, tort law allows you to recover from this corporation based on the dollar amount of damages you incurred.¹ Imagine though, that because of the weight of the truck, and the contents of the truck's cargo, laws capped your financial recovery at \$2,000, leaving you \$998,000 in the red. How can a system like this ever truly protect you? This scenario represents the situation caused by the *MV Wakashio* when it was grounded off the coast of Mauritius, dumping 1,200 tons of bunker oil into the surrounding waters.² However, instead of incurring damages of \$1 million, Mauritius could suffer over \$10 billion in harm. Even after applying oil spill indemnification conventions, Mauritius will likely have to account for over \$9.9 billion in damages.³ The applicable indemnification conventions are inadequate to compensate for the damage to the country's coast, leaving this Small Island Developing State ("SIDS") to fend for itself.⁴

The current state of bunker oil spill conventions leaves SIDS without hope of recovering the actual damages they suffer from oil spills like the *MV Wakashio*. The International Maritime Organization ("IMO"), over the course of the last half century, has addressed this problem and created

¹ RESTATEMENT (THIRD) OF TORTS: LIABILITY FOR PHYSICAL AND EMOTIONAL HARM § 3 (AM. L. INST. 2010).

² Paolo Tibaldeschi, Komal Hassamal, & Sindra Sharma, *What Must We Learn From Mauritius' Worst Oil Spill Disaster*, MEDIUM (Aug. 14, 2020), <https://medium.com/@paolo.tibaldeschi/what-must-we-learn-from-mauritius-worst-oil-spill-disaster-f20dde73dfd3>.

³ *Responding to the MV Wakashio Oil Spill*, INT'L MAR. ORG., <https://imo.org/en/MediaCentre/HotTopics/Pages/Wakashio-FAQ.aspx> (last visited Mar. 20, 2021); "Natural Resource Damage Assessment (NRDA) is the legal process that federal agencies like NOAA, together with the states and Indian tribes, use to evaluate the impacts of oil spills, hazardous waste sites, and ship groundings on natural resources both along the nation's coast and throughout its interior." *What is a Natural Resource Damage Assessment?*, NAT'L OCEANIC & ATMOSPHERIC ADMIN., <https://oceanservice.noaa.gov/facts/nrda.html> (last visited Nov. 11, 2020).

⁴ *Small Island Developing States*, U.N. SUSTAINABLE DEV. GOALS KNOWLEDGE PLATFORM, <https://sustainabledevelopment.un.org/topics/sids> (last visited Oct. 21, 2020); "Unfortunately, the very comprehensive international regime on liability and compensation for oil pollution damage caused by persistent oil spills from tankers (IOPC-FUND regime)...does not apply in this case, as the bunker oil spill is from a bulk-carrier, not an oil tanker." Asariotis & Premti, *supra* note 3.

protections against oil-tankers that run aground and cause extensive pollution damage.⁵ However, they have not extended the full breadth of this coverage to bunker oil spills that are, like the *MV Wakashio*, a product of non-oil tanker vessels which have grown substantially in size and usage and endanger the most vulnerable nations.⁶

The objective of this note is to advocate for a solution to provide adequate liability coverage through an extension of current oil spill conventions by expanding their coverage, or for the IMO to promulgate a new convention to protect SIDS. First, I offer an overview of the recent oil spill in Mauritius. Second, I provide a detailed explanation of the vulnerability of SIDS and why they need these new protections. Third, I discuss the current IMO conventions related to oil spill disasters. Last, I present potential policy options to amend the IMO conventions to improve the current indemnification protection available for nations harmed by these oil spills.

I. *MV WAKASHIO* GROUNDED OFF THE COAST OF MAURITIUS

On July 25, 2020, the *MV Wakashio* grounded on the southeastern coast of Mauritius,⁷ a small island nation of approximately 1.3 million inhabitants in the Indian Ocean.⁸ Mauritius is smaller than Rhode Island and lies about

⁵ See International Convention on Civil Liability for Oil Pollution Damage, Nov. 29, 1969, 973 U.N.T.S. 3 [hereinafter 1969 Civil Liability Convention]; Protocol of 1992 to Amend the International Convention on Civil Liability for Oil Pollution, Nov. 27, 1992, 1956 U.N.T.S. 255 (amending International Convention on Civil Liability for Oil Pollution Damage, Nov. 29, 1969, 973 U.N.T.S. 3) [hereinafter 1992 Civil Liability Convention]; Protocol of 1992 to Amend the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971, Nov. 27, 1992, 1953 U.N.T.S. 373, 35 I.L.M. 1406 [hereinafter 1992 Fund Convention].

⁶ Ship size has grown 1500% in the past 50 years. E-mail from Nishan Degnarain, Contributor, Forbes Magazine, to Michael Garland, Staff Editor, Washington University in St. Louis Global Studies Law Review (Oct. 30, 2020, 05:29 CST) (on file with author); *Small Island Developing States*, U.N. CONF. ON TRADE & DEV., <https://unctad.org/topic/vulnerable-economies/small-island-developing-states> (last visited Oct. 21, 2020).

⁷ Tibaldeschi, Hassamal, & Sharma, *supra* note 2; The cause of the crash is still under investigation, but the crew was known to be celebrating a birthday, the ship diverted from its approved navigational plan, and the ship may have had too many crew on board. Asariotis & Premti, *supra* note 3; It is unknown why the *MV Wakashio* was travelling for several days off course through Mauritian waters. It is also unknown why a portion of the wreckage was dumped in the ecologically sensitive waters surrounding Mauritius. Nishan Degnarain, *Mauritius Seeks Quick Backdoor Deal With Japan For \$34 Million Over Wakashio Oil Spill*, FORBES (Sept. 1, 2020, 11:34 PM), <https://www.forbes.com/sites/nishandegnarain/2020/09/01/mauritius-seeks-quick-backdoor-deal-with-japan-for-34m-over-wakashio-oil-spill/?sh=4f8d1ec67cf8>.

⁸ *General Profile: Mauritius*, U.N. CONF. ON TRADE & DEV., <https://unctadstat.unctad.org/CountryProfile/GeneralProfile/en-GB/480/index.html> (last visited Oct. 21, 2020).

500 miles off the coast of Madagascar.⁹ Twelve days after the crash, 1,200 tons of bunker oil from the ship began to seep into the reef lagoon surrounding the island nation, causing serious harm to plant and animal life on the island, local communities, and the nation's economy.¹⁰ Fortunately, due to response efforts, over 3,300 tons of heavy fuel oil, also known as bunker oil, were removed from the ship before they spilled into the coastal waters.¹¹

The oil spill was in a “very sensitive zone”¹² that includes Blue Bay Marine Park, a popular tourist maritime attraction;¹³ Ile aux Aigrettes, the last remaining portion of dry coastal forest around Mauritius;¹⁴ and the

⁹ “Mauritius has a total area of about 2,040 sq km (1268 sq mi), of which the island of Mauritius occupies 1,860 sq km (720 sq. mi.) ...” *Mauritius - Location, size, and extent*, NATIONS ENCYC., <https://www.nationsencyclopedia.com/Africa/Mauritius-LOCATION-SIZE-AND-EXTENT.html> (last visited Nov. 23, 2020); “Physiographically, it is part of the Mascarene Islands.” Larry Wells Bowman, *Mauritius*, ENCYC. BRITANNICA (Nov. 20, 2020), <https://www.britannica.com/place/Mauritius>; *U.S. States By Size*, WORLD ATLAS, <https://www.worldatlas.com/aatlas/infopage/usabysiz.htm> (last visited Nov. 23, 2020).

¹⁰ Tibaldeschi, Hassamal, & Sharma, *supra* note 2; As of Oct. 28, 2020, there have been over “50 dolphins and whales, [and] thousands of sea-creatures” found dead. There has been “harmful algae bloom appearing in Mauritius’ protected Blue Bay Marine Park, and fish having traces of cancer causing PAH-chemicals from the oil spill in over 125 kilometers square of Mauritius’ lagoon.” Nishan Degnarain, *Is The UN Shipping Agency, The IMO, Still Fit For Purpose?*, FORBES (Oct 28, 2020, 06:56 AM EDT), <https://www.forbes.com/sites/nishandegnarain/2020/10/28/is-the-un-shipping-agency-the-imo-still-fit-for-purpose/?sh=3c88d40458fb>.

¹¹ Some residue and other oil remain in the stern section. *IMO helping to mitigate the impacts of MV Wakashio oil spill in Mauritius*, INT’L MAR. ORG., <http://www.imo.org/en/MediaCentre/PressBriefings/Pages/24-MV-Wakashio-oil-spill-response-Mauritius.aspx> (last visited Oct. 21, 2020). Four Mauritian members of a tugboat lost their lives from a boat crash during the cleanup efforts. Degnarain, *supra* note 11. 1 metric tonne = 1.1 tons. *Convert metric tonnes to tons – Conversion of Measurement Units*, CONVERTUNITS, <https://www.convertunits.com/from/metric+tonnes/to/tons> (last visited Nov. 23, 2020); Nishan Degnarain, *What Is Heavy Fuel Oil, And Why Is It So Controversial? Five Killer Facts.*, FORBES (Aug 14, 2020, 06:10 PM EDT), <https://www.forbes.com/sites/nishandegnarain/2020/08/14/what-is-heavy-fuel-oil-and-why-is-it-so-controversial-five-killer-facts/?sh=52155d374c03>.

¹² INT’L MAR. ORG., *supra* note 12; “These are the Government-linked scientists who had erroneously claimed that the whales and dolphins dying in Mauritius were linked to natural causes and ‘stress.’ Oil has since been found in pregnant whales and dolphins.” Nishan Degnarain, *Is Mauritius Oil Spill Disaster The First Victim Of Japan Science Council Scandal?*, FORBES (Oct 14, 2020, 10:22 PM EDT), <https://www.forbes.com/sites/nishandegnarain/2020/10/14/is-mauritius-oil-spill-disaster-the-first-victim-of-japan-science-council-scandal/?sh=30ecfc8e7f86>.

¹³ “The Marine Park at Blue Bay is a magical and serene location bubbling with life. The marine park is a real underwater theatre which homes an array of marine species and serves as a playground for fishes and turtles too!” *Blue Bay Marine Park*, MAURITIUS EXPLORED, <https://www.mauritiusexplored.com/top-activities-mauritius/blue-bay-marine-park/> (last visited Oct. 21, 2020).

¹⁴ “Ile aux Aigrettes is a small (27 ha) island situated in the Mahebourg Bay, about 850 m off the south-east coast of Mauritius. Unlike the mainland, which is of volcanic origin, Ile aux Aigrettes is made up of coralline limestone. It is home to the last remnants of dry coastal forest, once found around most of Mauritius.” *Ile aux Aigrettes*, MAURITIAN WILDLIFE FOUND., <https://www.mauritian-wildlife.org/leauxaigrettes> (last visited Oct. 21, 2020).

Ramsar sites, which consist of three internationally protected wetlands.¹⁵ Mauritius is known around the world for its beautiful beaches and surrounding waters,¹⁶ as well as an abundance of aquatic and recreational outdoor activities, which bring tourists year-round.¹⁷

In addition to the crash of the *MV Wakashio*, Mauritius is currently facing a second related oil spill disaster¹⁸ – the bunker oil pipeline passing through the capital city of Mauritius and the storage tanks being used to store the recovered *MV Wakashio* bunker oil are leaking.¹⁹ This leak is in an area adjacent to the Ramsar-protected Rare Bird Sanctuary and the full extent of the leak and long-term damages will not be known for many years to come.²⁰ This incident illustrates that oil spill disasters have consequences that stretch beyond the typical costs of clean-up efforts to recover the ship and prevent further spillage; there are also exponential impacts on the nation's economy and environment.²¹

The nation of Mauritius relies heavily on tourism to drive its economy.²² The GDP in 2020 was \$11.3 billion, down from \$14 billion in 2019.²³ Since

¹⁵ “Ramsar sites are designated under the Convention on Wetlands of International Importance, which was adopted in 1971 in Ramsar, Iran.” *Ramsar Sites*, NATURESCOT, <https://www.nature.scot/professional-advice/protected-areas-and-species/protected-areas/international-designations/ramsar-sites> (last visited Oct. 21, 2020); INT’L MAR. ORG., *supra* note 12.

¹⁶ Tibaldeschi, Hassamal, & Sharma, *supra* note 2.

¹⁷ *Experiences*, MYMAURITIUS, <https://www.mymauritius.travel/experiences> (last visited Oct. 21, 2020). Mauritius won four World Travel Awards this year: Indian Ocean’s Leading Adventure Tourism Destination, Indian Ocean’s Leading Culinary Destination, Indian Ocean’s Leading Wedding Destination 2020 and Indian Ocean’s Leading Honeymoon Destination. *Id.*

¹⁸ Nishan Degnarain, *New Oil Spill In Mauritius Near To Bird Sanctuary Linked To Sunken Japanese Ship Wakashio*, FORBES (Nov 18, 2020, 10:42 AM EST), <https://www.forbes.com/sites/nishandegnarain/2020/11/18/new-oil-spill-in-mauritius-near-to-bird-sanctuary-linked-to-sunken-japanese-ship-wakashio/?sh=785af5f3395a>.

¹⁹ *Id.* “Early reports suggest 30,000 gallons could have been split in the region of *Les Salines*, which is adjacent to coastal land that was being reclaimed from a recent port dredging operation...*The Wakashio* was carrying a new form of experimental fuel that has raised concerns among scientists in the U.S. and Australia who found many of the chemical properties in the oil ‘surprising’ and ‘unknown.’” *Id.*

²⁰ *Id.*

²¹ Asariotis & Premti, *supra* note 3; “The Government of Mauritius announced on 1 September, that local fishermen and tour boat operators would receive a one off grant of \$250 for lost earnings in August due to the oil spill, in addition to a daily fee of \$20 to assist with the beach cleanup operations.” Degnarain, *supra* note 7; As long as the oil is left in the water, the damage done to the environment increases exponentially. The marine life in the affected waters will likely show signs of this disaster for decades to come. Telephone Interview with Paolo Tibaldeschi, Environmental and Sustainability Expert, World Wildlife Fund – Norway (Oct. 22, 2020); *See also* Tibaldeschi, Hassamal, & Sharma, *supra* note 2.

²² Asariotis & Premti, *supra* note 3.

²³ *IMF Report*, INT’L MONETARY FUND, <https://www.imf.org/en/Publications/WEO/weo-database/2020/October> (follow “By Countries” hyperlink; select “Emerging and Developing Countries”; click “Clear All”; follow “Continue” hyperlink; click “Select All”; follow “Continue” hyperlink; select data range drop-down to “2018” to “2020”; click “Prepare Report”).

2005, when its GDP was just under \$7 billion, Mauritius' GDP had been growing year-over-year.²⁴ Travel and tourism account for 23.9%²⁵ of the GDP, making these industries the nation's third-largest sector behind manufacturing and agriculture.²⁶ Additionally, another 10.5% of the GDP comes from the "Blue Economy," which is comprised of "coastal tourism, fishing, seafood processing and seaport activities."²⁷ Mauritius, and other similar nations, are highly dependent on the waters within their exclusive economic zone.²⁸

II. SMALL ISLAND DEVELOPING STATES

According to the UN, there are 58 Small Island Developing States, 38 of which are UN members.²⁹ Although there are no objective rules to determine what constitutes a Small Island Developing State, they are generally small in size and population, have limited resources, and are isolated from capital and commercial markets.³⁰ They are ecologically

²⁴ U.N. CONF. ON TRADE & DEV., *supra* note 9.

²⁵ *Mauritius - Contribution of travel and tourism to GDP as a share of GDP*, KNOEMA (last visited Oct. 21, 2020), <https://knoema.com/atlas/Mauritius/topics/Tourism/Travel-and-Tourism-Total-Contribution-to-GDP/Contribution-of-travel-and-tourism-to-GDP-percent-of-GDP>.

²⁶ Tibaldeschi, Hassamal, & Sharma, *supra* note 2.

²⁷ Tibaldeschi, Hassamal, & Sharma, *supra* note 2.

²⁸ "An exclusive economic zone ("EEZ") is an area which is beyond, and is adjacent to, a given country's territorial seas, and extends no more than 200 nautical miles (370 kilometers) out from a country's own coastlines." Khushboo Sheth, *What Is An Exclusive Economic Zone (EEZ)*, WORLDATLAS, <https://www.worldatlas.com/articles/what-is-an-exclusive-economic-zone-eez.html> (last visited Oct. 21, 2020); *see also* United Nations Convention on the Law of the Sea (UNCLOS), art. 55-75, Dec. 10, 1982, 1833 U.N.T.S. 397. "Tourism could be disrupted through the loss of beaches, coastal inundation, degradation of coastal ecosystems, saline intrusion, damage to critical infrastructures..." *Climate Change, Small Island Developing States*, CLIMATE CHANGE SECRETARIAT (UNFCCC) 23 (2005), https://unfccc.int/resource/docs/publications/cc_sids.pdf.

²⁹ *Small Island Developing States*, SUSTAINABLE DEV., <https://sustainabledevelopment.un.org/topics/sids/list> (last visited Oct. 21, 2020).

"UN MEMBERS (38): Atlantic, Indian Ocean and South China Sea (AIS) (9): Bahrain, Cabo Verde, Comoros, Guinea-Bissau, Maldives, Mauritius, Sao Tomé and Príncipe, Seychelles, Singapore Caribbean (16): Antigua and Barbuda, Bahamas, Barbados, Belize, Cuba, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago Pacific (13): Fiji, Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu, Vanuatu. NON-UN MEMBERS/ASSOCIATE MEMBERS OF REGIONAL COMMISSIONS (20): American Samoa, Anguilla, Aruba, Bermuda, British Virgin Islands, Cayman Islands, Commonwealth of Northern Marianas, Cook Islands, Curacao, French Polynesia, Guadeloupe, Guam, Martinique, Montserrat, New Caledonia, Niue, Puerto Rico, Sint Maarten, Turks and Caicos Islands, U.S. Virgin Islands." *Id.*

³⁰ United Nations Conference on Environment & Development, *Conservation and management of resources for development*, ¶ 17.123, U.N. Doc. A/CONF.151/26 (June 3-14, 1992) [hereinafter U.N.C.E.D.]. "Although more sources of financing have become available, most SIDS struggle to access these due to low absorption capacity and the complex array of accreditation and application processes to access the global funds." Sainivalati Navoti, *Chief's Corner*, COWRIE: SIDS TIMES MAGAZINE (UN-DESA), 2019, at 5.

fragile and particularly vulnerable to external shocks.³¹ In a 2012 working paper, the International Monetary Fund ranked the top 50 most vulnerable small nations.³² Of the 38 SIDS that are UN members, 31 of them made the list, and occupied the first 10 spots for most vulnerable.³³

The concept of grouping and protecting these nations under the title “SIDS” is fairly modern, gaining initial acceptance in 1994, and further protection in 2005.³⁴ The United Nations Conference on Trade and Development was among the earliest UN entities to “recognize the particular challenges [faced by] small island developing States (SIDS).”³⁵ Since 2005, global powers have convened several times to discuss and implement hundreds of partnerships to aid SIDS in their development.³⁶ Although disasters caused by oil tanker spills have reduced drastically in the last decade, bunker oil spills continue to be a major risk for SIDS.³⁷

³¹ U.N.C.E.D., *supra* note 31; “The paramount development goal of these countries therefore is resilience-building, a multi-faceted set of objectives ranging from climate adaptation to economic diversification. SIDS need external financial and/or technical support in their resilience-building efforts.”; *Small Island Developing States*, U.N. CON. ON TRADE & DEV., <https://unctad.org/topic/vulnerable-economies/small-island-developing-states>. “UNCTAD is on the forefront of global advocacy for supporting the resilience-building work of SIDS. The three principal angles of its action are to: Raise the visibility of island vulnerability issues, identify resilience-building and other special support measures for SIDS, and Provide selected SIDS with a range of advisory services, with a special focus on least developed SIDS which are faced with the challenge of graduation from LDC status.” *Id.*

³² Chris Becker, *Small Island States in the Pacific: The Tyranny of Distance* (Int’l Monetary Fund, Working Paper, 2012).

³³ *Id.* The rankings for the IMF list are based on population, arable land, distance, GNI, GNI/capita. *Id.*

³⁴ “The Barbados Programme of Action (BPOA) adopted in 1994, further complemented by The Mauritius Strategy of Implementation (MSI) of 2005 and MSI+5 Outcome document, recognized that although they are afflicted by economic difficulties and confronted by development imperatives similar to those of developing countries generally, small island developing States (SIDS) have their own peculiar vulnerabilities and characteristics.” U.N. SUSTAINABLE DEV. GOALS KNOWLEDGE PLATFORM, *supra* note 5.

³⁵ UNCTAD specifically recognized “the acute exposure of many of them to natural and economic shocks beyond domestic control, and to call for special international responses to their problems.” U.N. SUSTAINABLE DEV. GOALS KNOWLEDGE PLATFORM, *supra* note 5.

³⁶ “Partnerships for sustainable development are multi-stakeholder initiatives voluntarily undertaken by Governments, intergovernmental organizations, major groups and other stakeholders, which efforts are contributing to the implementation of inter-governmentally agreed development goals and commitments.” *Multi-stakeholder partnerships & voluntary commitments*, U.N. SUSTAINABLE DEV. GOALS KNOWLEDGE PLATFORM, <https://sustainabledevelopment.un.org/sdinaction> (last visited Nov. 11, 2020); “The United Nations Conference on Sustainable Development (also known as Rio+20) that took place in Rio de Janeiro, Brazil in June 2012 (. . .) Third International Conference on SIDS was held in Apia, Samoa, in September 2014 (. . .) Nearly 300 partnerships were announced at the conference and monitored through the Partnership Platform.” U.N. SUSTAINABLE DEV. GOALS KNOWLEDGE PLATFORM, *supra* note 5.

³⁷ “According to the International Tanker Owners Pollution Federation Limited (ITOPF), the average number of major oil spills per year during the 1970s was over 25, dropping to approximately 9

Given the continued growth in ship sizes, the amount of bunker oil being transported in vessels such as container ships, chemical carriers, general cargo ships and passenger cruise ships is increasing. Until the world has moved past the use of fossil fuels to power ships, bunker oil spills will remain a threat to the economic and ecological health of SIDS.

The odds of another major bunker oil spill affecting a Small Island Developing State again may seem too remote to require a global call to action, especially since we are considering only vessels other than oil tankers and that SIDS, by nature, have a small and remote geographic footprint. However, these states are often located on high traffic shipping lanes, putting them in harm's way.³⁸ Also, many of these countries lack adequate technology to alert ships that are on a dangerous course and if a vessel does have a spill in the vicinity of a Small Island Developing State, the local government's safety protocols likely do not include the most effective oil spill management technologies.³⁹

Additionally, it is not only wayward or passing ships that are the cause of these spills. A similar incident occurred just over a year before the Mauritius oil spill.⁴⁰ On February 5, 2019, the *MV Solomon Trader* ran aground off the coast of the Solomon Islands, a Small Island Developing State in the South Pacific.⁴¹ The *MV Solomon Trader* was loading minerals from a mine on the island before crashing into a nearby coral reef.⁴² 88 tons of bunker oil were spread across the nation's "coastal waters, beaches and a sensitive coral reef system," all within just a few miles of a UNESCO world heritage site.⁴³ Some have speculated that the contamination was the

in the 1980s and 8 in the 1990s, to just over 3 in the most recent decade." U.N. Conference on Trade and Development, *Liability and Compensation for Ship-Source Oil Pollution: An Overview of the International Legal Framework for Oil Pollution Damage from Tankers*, ¶ 17, U.N. Doc A/CONF. (2012) [hereinafter U.N.C.T.A.D.]; Asariotis & Premti, *supra* note 3.

³⁸ Nishan Degnarain, *How Satellites Tracked The Fateful Journey Of The Ship That Led To Mauritius' Worst Oil Spill Disaster*, FORBES (Aug 9, 2020, 09:12 PM EDT), <https://www.forbes.com/sites/nishandegnarain/2020/08/09/how-satellites-traced-the-fateful-journey-of-the-ship-that-led-to-mauritius-worst-oil-spill-disaster/?sh=6f661ab65b42>. "Satellite data also reveal how crowded global shipping lanes have become, making them impossible to manage through human eyes alone. Vessel traffic has increased four-fold in the past twenty years." *Id.*

³⁹ Telephone Interview with Paolo Tibaldeschi, *supra* note 22; "Rather than making the global shipping industry cover this additional risk that is needed, it has fallen on small island nations like the Mauritian taxpayers to subsidize the multi-billion dollar global shipping industry with oil protection equipment." Degnarain, *supra* note 11.

⁴⁰ Catherine Wilson, *Solomon Islands: Oil stops spilling but environmental toll still being calculated*, MONGABAY (Apr. 2, 2019), <https://news.mongabay.com/2019/04/solomon-islands-oil-stops-spilling-but-environmental-toll-still-being-calculated/>.

⁴¹ *Id.* "The Solomon Islands is part of the marine biodiversity-rich Coral Triangle and has one of the world's most important coral reef systems." *Id.*

⁴² *Id.*

⁴³ *Id.*

Solomon Islands' worst man-made environmental disaster to date.⁴⁴ A common theme to these disasters in remote areas is the delay in response time from the ship owners, which increases the severity of the spills.⁴⁵ In this case, over a month passed before efforts to prevent further damage were underway.⁴⁶

Emergency aid efforts eventually began and, after two weeks, responders were able to prevent an additional 770 tons of bunker oil from being released into the waters.⁴⁷ Unfortunately, like many SIDS, the Solomon Islands had not yet ratified the necessary conventions that would have at least offered some level of guaranteed financial indemnity for this disaster.⁴⁸ Further, for a country that relies heavily on its coastal waters for food and drinking water, these types of disasters can present more than just an immediate economic impact, but a lasting societal and ecological impact as well.⁴⁹

III. INTERNATIONAL MARITIME ORGANIZATION CONVENTIONS

About half the world's oil is transported by sea.⁵⁰ In part to address potential disasters from these immense shipping efforts, the UN established the IMO, the legislative body that oversees the current oil pollution liability conventions.⁵¹ The IMO "is the global standard-setting authority for the

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ *Id.*: see also Jason Daly, *Month-Long Oil Spill in the Solomon Islands Threatens World's Largest Coral Reef Atoll*, SMITHSONIAN MAG. (Mar. 11, 2019), <https://www.smithsonianmag.com/smart-news/month-long-oil-spill-threatens-world-heritage-site-solomon-islands-180971674/>.

⁴⁷ Wilson, *supra* note 42.

⁴⁸ As of Aug. 11, 2020, the Solomon Islands is attempting to pass legislation to ratify the Bunker Oil Pollution Convention. Charley Piringi, *Government to ratify the Bunkers Convention*, SIBC, <https://www.sibconline.com.sb/government-to-ratify-the-bunkers-convention/> (last visited Oct. 21, 2020); The Solomon Islands have only ratified the 1992 CDC, which does not apply here because this was not an oil tanker. "There are currently 120 States Parties to the 1992 Fund Convention and 32 States Parties to the Supplementary Fund Protocol." *Parties to the international liability and compensation Conventions*, I.O.P.C. FUNDS, <https://iopcfunds.org/about-us/membership/#member-state-3449> (last visited Oct. 21, 2020).

⁴⁹ Wilson, *supra* note 42; "While local villagers have been told not to eat fish, it is understood many still are, in the absence of other food sources on the remote island." Lisa Martin, *Solomon Islands: bay hit by oil spill suffers second contamination crisis*, GUARDIAN (July 5, 2019), <https://www.theguardian.com/world/2019/jul/05/solomon-islands-bay-hit-by-oil-spill-suffers-second-contamination-crisis>; "People on the atoll have been advised to avoid drinking the rainwater they collect in tanks because evaporated oil fumes may have contaminated them. Many locals are reporting headaches and other ailments." Daly, *supra* note 48.

⁵⁰ U.N.C.T.A.D., *supra* note 38.

⁵¹ "IMO – the International Maritime Organization – is the United Nations specialized agency with responsibility for the safety and security of shipping and the prevention of marine and atmospheric pollution by ships. IMO's work supports the UN SDGs." *Introduction to IMO*, INT'L MAR. ORG., <http://www.imo.org/en/About/Pages/Default.aspx> (last visited Oct. 21, 2020).

safety, security, and environmental performance of international shipping. Its main role is to create a regulatory framework for the shipping industry that is fair, effective, universally adopted and universally implemented.”⁵² The IMO’s first major convention came in response to the 1967 *Torrey Canyon* disaster,⁵³ which resulted in roughly 110,000 tons of crude oil spilled into the English Channel.⁵⁴

A. 1969 CLC and 1971 Fund Convention

The outcome of the efforts to provide compensation following the *Torrey Canyon* disaster was the 1969 Civil Liability Convention (“CLC”)⁵⁵ and the 1971 Fund Convention.⁵⁶ These conventions focused on compensation for damages that resulted from ships that carry oil as cargo.⁵⁷ The conventions provide strict liability against shipowners,⁵⁸ unless the owner can prove the cause of the spill satisfies one of the very narrow

⁵² The IMO’s “role is to create a level playing field so that ship operators cannot address their financial issues by simply cutting corners and compromising on safety, security and environmental performance. This approach also encourages innovation and efficiency.” *Id.*

⁵³ U.N.C.T.A.D., *supra* note 38.

⁵⁴ “The supertanker *SS Torrey Canyon* hit rocks off the coast of Cornwall, spilling more than 100,000 tonnes of crude oil into the English Channel. Beaches were left knee-deep in sludge and thousands of sea birds were killed in what remains the UK’s worst environmental accident.” Bethan Bell & Mario Cacciottolo, *Torrey Canyon oil spill: The day the sea turned black*, BBC NEWS (Mar. 17, 2017), <https://www.bbc.com/news/uk-england-39223308>.

⁵⁵ See 1969 Civil Liability Convention, *supra* note 6.

⁵⁶ See 1971 Fund Convention, *supra* note 6.

⁵⁷ “It provides for liability of a shipowner in respect of any oil pollution damage suffered in the territory or territorial sea of a Contracting State.” U.N.C.T.A.D., *supra* note 3, at ¶ 24.

⁵⁸ “As a consequence of the shipowner being subject to strict liability, the extent of his liability is limited, i.e. subject to a monetary cap. Thus, the shipowner is entitled to limitation of liability, with the maximum amount of liability depending on the tonnage of the ship.” U.N.C.T.A.D., *supra* note 38, at ¶ 48.

exceptions.⁵⁹ The 1969 CLC continues to provide liability coverage up to about \$20 million,⁶⁰ while the 1971 Fund Convention expired in 2002.⁶¹

B. CLC-IOPC Fund Regime

The IMO amended the 1969 CLC, creating the 1992 CLC and the 1992 Fund Convention to increase the limits of compensation available.⁶² Collectively, these conventions are known as the CLC-IOPC Fund Regime.⁶³ The beauty of the CLC-IOPC Fund Regime is that each convention adds a layer of pollution damage protection. The first tier, made up of the 1969 CLC and 1992 CLC, imposes liability on the shipowner by requiring mandatory insurance coverage and is the lowest liability limit at

⁵⁹ “A very limited number of exceptions to the shipowner’s liability is set out in both of the Civil Liability Conventions. In particular, the shipowner is exempt from liability where the pollution damage resulted from an act of war or a natural disaster or was wholly caused by the intentional act of a third party or the negligence of public authorities in maintaining lights or navigational aids. Contributory negligence on the part of the claimant may also be available as a complete or partial defense to the shipowner.” U.N.C.T.A.D., *supra* note 38, at ¶ 47.

⁶⁰ 1969 CLC provides for a maximum of 14 million SDR, approximately \$20 million. *The 1992 Fund Convention*, IOPC FUNDS, <https://www.iopcfunds.org/about-us/legal-framework/1992-fund-convention-supplementary-fund-protocol/> (last visited Oct. 21, 2020); “The relevant unit of account was changed to the more stable Special Drawing Right (SDR), a basket currency updated daily by the International Monetary Fund (IMF).” U.N.C.T.A.D., *supra* note 38, at ¶ 24 (endnote 24); “The shipowner may lose his right to limit his liability in certain circumstances. Under the 1969 CLC, the right will be lost where the claimant proves that the incident occurred as a result of the ‘actual fault or privity’, i.e. knowledge of the owner.” *Id.* at ¶ 49

⁶¹ Expired May 24, 2002. *Id.* at ¶ 24 (endnote 30).

⁶² “The 1992 CLC is a consolidated version of the 1969 CLC, as amended by the Protocol of 1992 to Amend the International Convention on Civil Liability for Oil Pollution Damage, 1969.” *Id.* at ¶ 26 (endnote 28); “The 1992 Fund Convention is a consolidated version of the 1971 Fund Convention, as amended by the Protocol of 1992 to Amend the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971.” *Id.* at ¶ 26 (endnote 29); “The two Conventions introduce some important changes to the earlier legal regime, in particular by widening the relevant geographical scope of application and by increasing the maximum amounts of compensation available under each Convention.” *Id.* at ¶ 28; “In general, claims may be brought in relation to property damage, consequential loss and pure economic loss. The costs of reasonable measures to restore the environment are also recoverable, as are the costs of preventive measures.” *Id.* at ¶ 39.

⁶³ *Id.* at ¶ 3

roughly \$127 million total.⁶⁴ ⁶⁵ Contracting States must insure up to the maximum potential limits of liability for their vessel based on convention guidelines.⁶⁶ The second tier, the 1992 Fund Convention, adds roughly \$290

⁶⁴ *Id.* at ¶ 32 (table 2); “1992 CLC extends to any pollution damage suffered in the territory, territorial sea, exclusive economic zone or equivalent area of a Contracting State, providing a much more extensive coverage.” *Id.* at ¶ 24.

Table 2: Maximum amounts of compensation available in respect of any one pollution incident (values expressed in million SDR) under different international legal instruments in force and number of Contracting States

Tanker size (gt)	1969 CLC as amended	1992 CLC (post 2003)	1992 Fund Conv. (post 2003) ***	2003 Supp. Fund Protocol****
5,000	0,665	4,510	203	750
10,000	1,33	7,665	203	750
50,000	6,65	32,905	203	750
100,000	13,3	64,455	203	750
140,000	14	89,695	203	750
150,000	14	89,770	203	750
200,000	14	89,770	203	750
Contracting States	37*	124**	105**	27**
<p>* Includes several States that are also Party to both the 1992 CLC and 1992 Fund Convention and several States that are also Party to the 1992 CLC, but <u>not</u> the 1992 Fund Convention. Includes one State that has denounced the Convention effective 25 May 2012.</p> <p>** The 1992 CLC and 1992 Fund Convention will enter into force in 2012 for a further four States that have recently acceded. The 2003 Supplementary Fund Protocol will enter into force in 2012 for one further State.</p> <p>*** Maximum amount, including compensation paid under 1992 CLC.</p> <p>**** Maximum amount, including compensation paid under the 1992 CLC and 1992 Fund Convention.</p> <p>gt = gross tonnage</p> <p>SDR = Special Drawing Right. The relevant unit of account is the Special Drawing Right (SDR) as defined by the International Monetary Fund. As at 3 January 2012, the relevant exchange rate is 1 SDR = US\$1.542930.</p>				

⁶⁵ “Under the 1992 CLC, the shipowner will only lose the right to limit his liability if it is proved that the pollution damage occurred from an ‘intentional act or omission’, or where the shipowner acted ‘recklessly with knowledge that such damage would probably result’... loss of a shipowner’s right to limit liability will, in practice, be particularly rare.” *Id.* at ¶ 49.

⁶⁶ “To ensure that claims against a shipowner are not frustrated by insolvency, e.g. following loss of a vessel registered in a single-ship company, the Civil Liability Conventions envisage mandatory insurance requirements for most vessels. Thus, ships carrying more than 2,000 tons of oil in bulk as cargo, wherever registered, must maintain insurance that is adequate to cover the shipowner’s liability under the relevant Convention to be permitted to enter or leave the territorial waters of any Contracting States. A certificate confirming that such cover is in place must also be issued by the appropriate authority in a Contracting State. Claimants benefit from a right of direct action against the shipowner’s insurer in cases where the shipowner is not financially capable of settling claims” *Id.* at ¶ 50.

million of protection, and is funded by contributions from any person in a Contracting State.⁶⁷

After the *Erika* oil spill disaster in 1999, the 1992 CLC limits were increased by an additional 50%.⁶⁸ It is important to note that a country can become a Contracting State for the first tier without incurring any costs, and for the second tier without any costs if that country does not reach a minimum quota of oil imports.⁶⁹ This creates a situation in which a smaller country, with limited financial resources, can agree to the conventions and gain a significant amount of coverage without incurring any costs.⁷⁰

C. 2003 Supplementary Fund

Once again following a major oil disaster in 2002,⁷¹ the IMO added the most recent convention, the 2003 Supplementary Fund Protocol.⁷² This is the third and by far largest layer of the CLC-IOPC Fund Regime, which allows the total claim limit to reach over \$1 billion.⁷³ When a Contracting State ratifies this convention they are required to contribute annually to a combined fund to finance the Supplementary Fund.⁷⁴ The contribution amount for this additional tier is based on the level of imports of “contributing oil”,⁷⁵ but when the annual dues are assessed to each country,

⁶⁷ “Person” means any individual or partnership or any public or private body, whether corporate or not, including a State or any of its constituent subdivisions. 1969 Civil Liability Convention, *supra* note 6, at art. I; U.N.C.T.A.D., *supra* note 38, at ¶ 36, 51.

⁶⁸ “However, in the light of a major oil pollution incident in 1999, involving the *Erika*, the need for a further increase of the compensation amounts became apparent and, in 2000, by way of tacit amendment procedure, the compensation levels available in the 1992 Conventions were raised by 50%.” U.N.C.T.A.D., *supra* note 38, at ¶ 29.

⁶⁹ “The 1992 IOPC Fund is made up of annual contributions from any person in a Contracting State (including Government authorities, State-owned companies or private companies) who receives more than 150,000 metric tonnes (mt) of “contributing oil” in any calendar year.” *Id.* at ¶ 57.

⁷⁰ “Contracting States with “contributory” oil receipts of less than 150,000 mt annually benefit from the substantive compensation available from the 1992 IOPC Fund without any financial burden arising for oil receivers (importers) based in that State.” *Id.* at ¶ 77

⁷¹ “On November 19, the *Prestige* broke in half and sank, releasing more than 20 million gallons of oil. The resulting oil slick polluted thousands of kilometers of beautiful coastline in Spain and France and sank onto the seabed in an ecologically sensitive area of coral reefs, affecting all the marine and bird life. The Galicians, whose livelihood depends on the fishing industry, were dealt, a terrible blow when all offshore fishing was banned for six months.” *Prestige Oil Spill – 2002*, DEVASTATING DISASTERS, <https://devastatingdisasters.com/prestige-oil-spill-2002/> (last visited Nov. 22, 2020).

⁷² This is an optional 3rd tier of coverage available for states that have ratified the first two tiers of coverage. U.N.C.T.A.D., *supra* note 38, at ¶ 58.

⁷³ This Convention “provides additional compensation for established claims under the 1992 IOPC Fund, up to an aggregate maximum amount of 750 million SDR per incident.” (See chart below for full breakdown of coverages). U.N.C.T.A.D., *supra* note 38, at ¶ 32, 36 (table 2).

⁷⁴ *Id.* at ¶ 59, 63.

⁷⁵ *Id.* at ¶ 63; “The oil must be carried by sea to the ports or terminal installations in that State to be considered as “contributing oil.” *Id.* at ¶ 57.

the IOPC presumes a minimum amount of imported “contributing oil” of one million mt per year.⁷⁶ This minimum level means that a country like Mauritius, which imports just over half a million mt of “contributing oil” per year,⁷⁷ could still be liable for contribution levels equivalent to a much larger country. The costs incurred, combined with a low risk of pollution damages to reach this third tier, means almost no SIDS are Contracting States of the 2003 Supplementary Fund.⁷⁸

The IMO has made great strides to protect the countries that fall victim to oil spills and increase the liability of the oil shipping community. However, there is much to be done, as these conventions are only designed to provide protections from ships that carry oil as cargo.⁷⁹ These conventions ignore the pollution damage caused by oil spills from ships that carry any other forms of cargo, leaving a massive gap in protection.⁸⁰ Some of the largest ships in the world, including container ships, chemical carriers, general cargo ships, and passenger cruise ships do not carry oil as cargo but are becoming an increasingly significant threat.⁸¹ These ships have the capacity to carry millions of gallons of oil.⁸² Indeed, in some cases these ships carry more bunker oil than a traditional oil tanker’s carrying capacity.⁸³ The IMO addressed this issue when it passed the 2001

⁷⁶ *Id.* at 63.

⁷⁷ *Contributing Oil Received in the Calendar Year 2017*, I.O.P.C. FUNDS, https://iopcfunds.org/wp-content/uploads/2019/01/2018-Contributing-oil-received_e.pdf (last visited Mar. 19, 2021).

⁷⁸ Barbados and Nauru are the only SIDS that have ratified the 2003 Supplementary Fund. *Status of Conventions*, INT’L MAR. ORG., <https://www.imo.org/en/About/Conventions/Pages/StatusOfConventions.aspx> (follow “Ratifications by State”).

⁷⁹ “The definition of ‘oil’ varies slightly between the two Conventions but, in both cases, covers pollution from persistent oil, such as crude oil and fuel oil, rather than non-persistent oil, such as light diesel oil, gasoline or kerosene. The 1992 CLC refers specifically to ‘persistent hydrocarbon mineral oil’ and omits ‘whale oil’, as one of the provided examples.” U.N.C.T.A.D., *supra* note 38, at ¶ 43; “The definition of ‘ship’ is narrow in both Conventions referring to ships that carry oil in bulk as cargo, i.e., typically oil tankers.” *Id.* at ¶ 44.

⁸⁰ “This restrictive coverage left an important gap in the regulatory regime, as bunker spills from other types of vessel, such as dry-cargo and passenger ships, were not covered even though such vessels carry substantial quantities of bunker fuel” *Id.* at ¶ 98; *See also* Asariotis & Premti, *supra* note 3.

⁸¹ U.N.C.T.A.D., *supra* note 38, at ¶ 14.

⁸² *Id.* at ¶ 98; Large cruise ship (900–1,100 feet): 1–2 million gallons. Container ship *Benjamin Franklin* (1,310 feet): 4.5 million gallons. *How Much Oil Is on That Ship?*, N.O.A.A. OFF. RESPONSE & RESTORATION (Mar. 8, 2016), <https://response.restoration.noaa.gov/about/media/how-much-oil-ship.html> (last visited Oct. 21, 2020).

⁸³ *Id.*

International Convention on Civil Liability for Bunker Oil Pollution Damage.⁸⁴

IV. THE 2001 BUNKER OIL POLLUTION CONVENTION

The CLC-IOPC Fund Regime covers “bunker oil pollution damage only if the bunker oil escapes from a ship ‘constructed or adapted for the carriage of oil as cargo,’”⁸⁵ creating a gap in coverage for non-oil tankers.⁸⁶ The 2001 Bunker Oil Pollution Convention was modeled on the 1969 Civil Liability Convention,⁸⁷ but to address the gap in coverage⁸⁸ the Convention redefined “Ships” to include “any seagoing vessel and seaborne craft, of any type whatsoever.”⁸⁹ Owners of non-oil tanker ships are subject to limited liability for bunker oil pollution damage caused by every other category of sea-going vessels.⁹⁰ To ensure that ship owners cannot escape liability by claiming financial inability to indemnify, the Convention imposes requirements for

⁸⁴ International Convention on Civil Liability for Bunker Oil Pollution Damage, Mar. 27, 2001, 40 I.L.M. 1493. The IMO created the 1996 HNS Convention and the 2010 HNS Protocol “to complement the CLC - IOPC Fund regime by

providing for compensation to victims of accidents involving a wide range of hazardous and noxious substances, including bulk cargoes (solids, liquids including oils, or liquefied gases) and packaged goods.” U.N.C.T.A.D., *supra* note 38, at ¶ 105; This has only been ratified by 14 states and has never entered into force. *Status of Conventions, supra* note 80.

⁸⁵ “‘Bunker oil’ means any hydrocarbon mineral oil, including lubricating oil, used or intended to be used for the operation or propulsion of the ship, and any residues of such oil.” International Convention on Civil Liability for Bunker Oil Pollution Damage, *supra* note 86, at art. I; U.N.C.T.A.D., *supra* note 38, at ¶ 98.

⁸⁶ *Id.*

⁸⁷ “NOTING the success of the International Convention on Civil Liability for Oil Pollution Damage, 1992 and the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992 in ensuring that compensation is available to persons who suffer damage caused by pollution resulting from the escape or discharge of oil carried in bulk at sea by ships.” International Convention on Civil Liability for Bunker Oil Pollution Damage, *supra* note 86; “The origins of the Bunkers Convention may be found in an Australian proposal submitted first to IMO’s Marine Environment Protection Committee in 1994 Link to the text of the note and later to the Legal Committee in 1995.” Norman A. Martínez Gutiérrez, *The Bunkers Convention and the Shipowner’s Right to Limit Liability*, 43 J. MAR. L. & COM. 235, 236 (2012). “The convention applies to damage caused on the territory, including the territorial sea, and in exclusive economic zones of States Parties.” International Convention on Civil Liability for Bunker Oil Pollution Damage, *supra* note 86 (R. 41; U.N.C.T.A.D., *supra* note 38, at ¶ 101.

⁸⁸ *Id.*

⁸⁹ International Convention on Civil Liability for Bunker Oil Pollution Damage, *supra* note 86.

⁹⁰ “‘Pollution damage’ means: (a) loss or damage caused outside the ship by contamination resulting from the escape or discharge of bunker oil from the ship, wherever such escape or discharge may occur, provided that compensation for impairment of the environment other than loss of profit from such impairment shall be limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken; and (b) the costs of preventive measures and further loss or damage caused by preventive measures.” *Id.*; Yuan Yang, *Liability and Compensation For Oil Spill Accidents: International Regime and its Implementation in China*, 57 NAT. RES. J. 465, 473-74 (2017).

ship owners to carry insurance or a financial security in the amount of the maximum potential liability they could face in a given spill disaster.⁹¹

31 nations have ratified this convention, including Japan, Namibia, Oman, and Nauru just in 2020.⁹² Although the 2001 Bunker Oil Pollution Convention is a strong foundation for protection, there are still several issues that need to be addressed. First, the bunker oil that is powering these ships is among the lowest grade and most damaging of the crude oils that exist.⁹³ Second, the limits of liability that are imposed on the shipowners is nowhere near the potential exposure of the states that may fall victim to bunker oil spills.⁹⁴ Third, not every state is a Member State of the Bunker Oil Pollution Convention, including most SIDS, leaving many states vulnerable to extensive damage.⁹⁵

A. Bunker Oil is Among the Lowest Grade and Most Damaging Crude Oil That Exists

Bunker oil is described by Forbes Magazine as “the sludge at the end of the refining process.”⁹⁶ Within the oil industry, the safety sheets for marine fuel oil classify bunker oil as “hazardous and very toxic to aquatic life, with

⁹¹ International Convention on Civil Liability for Bunker Oil Pollution Damage, *supra* note 83. The Convention requires ships over 1,000 gross tonnage to “maintain insurance or other financial security, such as the guarantee of a bank or similar financial institution, to cover the liability of the registered owner for pollution damage in an amount equal to the limits of liability under the applicable national or international limitation regime, but in all cases, not exceeding an amount calculated in accordance with the Convention on Limitation of Liability for Maritime Claims, 1976, as amended.” *Id.* at art. VII. Article 7R. 12. (10) of the Bunkers Convention provides that any claim for compensation for pollution damage may be brought directly against the insurer or other person providing financial security for the registered owner’s liability for pollution damage (traditionally P&I Clubs). *Id.*

⁹² *Status of Conventions*, INT’L MAR. ORG., <https://www.imo.org/en/About/Conventions/Pages/StatusOfConventions.aspx> (follow “Recent ratifications” hyperlink).

⁹³ See Tibaldeschi, Hassamal, & Sharma, *supra* note 2; “The oil that is burnt on ships is the stuff that the oil industry does not know what to do with. It is the sludge at the end of the refining process. There are many fancy names for it, but it is highly polluting, carbon-intensive and can cause serious human and environmental health conditions (one study estimates 40,000 deaths a year due to ship engine oil pollution alone).” Nishan Degnarain, *Japan’s Position In UN Shipping Agency To The Climate Crisis*, FORBES (Sept. 19, 2020, 8:59 PM), <https://www.forbes.com/sites/nishandegnarain/2020/09/19/climate-farce-japan-and-the-un-shipping-agencys-attitude-to-climate-change/#7f5f493331e7>.

⁹⁴ “‘Shipowner’ means the owner, including the registered owner, bareboat charterer, manager, and operator of the ship. ‘Registered owner’ means the person or persons registered as the owner of the ship or, in the absence of registration, the person or persons owning the ship. However, in the case of a ship owned by a State and operated by a company which in that State is registered as the ship’s operator, ‘registered owner’ shall mean such company. International Convention on Civil Liability for Bunker Oil Pollution Damage, *supra* note 86, at art. I.

⁹⁵ See *Status of Conventions*, *supra* note 80.

⁹⁶ Degnarain, *supra* note 95.

long-lasting effects.”⁹⁷ The oil is so thick that one of the primary ways it damages the environment is by physically smothering the marine species in the area.⁹⁸ Due to its thickness, the oil often takes longer to dissipate compared to lighter oils because evaporation and dispersion are inhibited.⁹⁹ What is particularly concerning to humans, beyond the extensive damage to the environment, is that exposure to these types of oils is a known carcinogen.¹⁰⁰ Humans are exposed to these oils through the fish they consume that inhabit the polluted waters.¹⁰¹ Due to the increased toxicity of bunker oil, a spill may seem insignificant in terms of its relatively low oil spill tonnage when compared to some of the largest oil tanker disasters, but can cause disproportionately devastating damages and clean-up costs for the victim state.¹⁰²

The International Tanker Owners Pollution Federation Limited’s smallest category of oil spills is about 48 barrels, with the largest category starting at about 4,800 barrels. The *Kure*, a ship carrying woodchips, spilled 105 barrels of bunker oil off the coast of California in 1997.¹⁰³ Over the course of 10 days, the clean-up efforts racked up a total of \$47 million in costs, which broke the record for “most expensive oil spill in terms of dollars per barrel.”¹⁰⁴ In this incident the cost to clean each barrel of oil was about 10,000 times the cost of the oil itself.¹⁰⁵ More recently, a container ship called the *Rena* grounded off the coast of New Zealand, releasing 440 tons of bunker oil and causing New Zealand’s worst maritime environmental disaster to date.¹⁰⁶

⁹⁷ Derrick Penner, *What is bunker fuel?*, VANCOUVER SUN (Apr. 9, 2015), <https://vancouversun.com/news/metro/what-is-bunker-fuel>.

⁹⁸ THE INTERNATIONAL TANKER OWNERS POLLUTION FEDERATION, EFFECTS OF OIL POLLUTION ON THE MARINE ENVIRONMENT, 2 (May 19, 2011), <https://www.itopf.org/knowledge-resources/documents-guides/tip-13-effects-of-oil-pollution-on-the-marine-environment/R>.

⁹⁹ *Id.* at 3.

¹⁰⁰ Degnarain, *supra* note 11; Bunker fuel oil is “suspected of damaging fertility, [and] may cause organ damage through prolonged exposure.” Penner, *supra* note 99.

¹⁰¹ Telephone Interview with Paolo Tibaldeschi, *supra* note 22.

¹⁰² U.N.C.T.A.D., *supra* note 38, at ¶ 99.

¹⁰³ 105 barrels = 4,410 gallons. *Barrels (Oil) to Gallons Conversion*, UNIT CONVERTER, <https://www.theunitconverter.com/barrel-oil-to-gallon-conversion/> (last visited Oct. 23, 2020); U.N.C.T.A.D., *supra* note 38, at ¶ 99.

¹⁰⁴ \$47 million for 105 barrels = \$447,619 per barrel. See U.N.C.T.A.D., *supra* note 38, at ¶ 99.

¹⁰⁵ Current barrel of crude oil is trading for \$39.85 as of Oct. 23, 2020. *Oil (WTI)*, BUS. INSIDER, <https://markets.businessinsider.com/commodities/oil-price?type=wti&op=1> (last visited Oct. 23, 2020).

¹⁰⁶ U.N.C.T.A.D., *supra* note 38, at ¶ 99.

Even more concerning than traditional bunker oil is the area of hybrid fuels being developed under the “Plastics-to-Fuels” movement.¹⁰⁷ Countries around the world are struggling to cope with the environmental crisis resulting from the immense volume of plastic that has been created in the last 60 years.¹⁰⁸ These plastics, now in daily use, can take anywhere from 10 to 1000 years to deteriorate, and most do not get recycled, leading to many countries overflowing with discarded plastics.¹⁰⁹ Major oil corporations, who also produce plastics, are lobbying to begin using these discarded plastics as additives to bunker oil.¹¹⁰ The hybrid oil that is being created is even more toxic than traditional bunker oil, and its lasting effects on the environment are still unknown.¹¹¹ There has been speculation that this oil was being used by the *MV Wakashio*, adding a whole new layer of complications to clean-up and recovery efforts.¹¹²

B. The Bunker Oil Pollution Convention’s Limits of Liability are too Low

Given the level of damage that bunker oil can create, one may expect the potential protection for victims of such an oil spill to be similar to those of oil tanker spills, but that is not the case. In fact, the potential liability limits are drastically lower for bunker oil disasters when the vessel is not an oil tanker.¹¹³ In addition to the limits being much lower, the way in which the damages are assessed is counterintuitive.¹¹⁴ In the Bunker Oil Pollution

¹⁰⁷ Nishan Degnarain, *Was Plastics Being Mixed With Oil In Mauritius Spill To Produce A Horror ‘Frankenstein Fuel’?* FORBES (Nov. 3, 2020, 08:49AM EST), <https://www.forbes.com/sites/nishandegnarain/2020/11/03/was-plastics-being-mixed-with-oil-in-mauritius-spill-to-produce-a-horror-frankenstein-fuel/?sh=1674dcb949ac>; “In recent years, there has been a series of experiments to mix plastics with oil to produce new forms of ‘Frankenstein fuels.’” *Id.*

¹⁰⁸ *Id.*

¹⁰⁹ Rick Leblanc, *The Decomposition of Waste in Landfills*, BALANCE: SMALL BUS. (Oct. 22, 2020), <https://www.thebalancesmb.com/how-long-does-it-take-garbage-to-decompose-2878033>. “Even plastic bags we use in our everyday life take anywhere from 10 to 1,000 years to decompose, and plastic bottles can take 450 years or more.” *Id.*

¹¹⁰ Degnarain, *supra* note 106. The plastic is added to the oil in the form of a “nurdle”, which is a small plastic pellet. *Id.*: “Degraded into smaller particles by weather and water, they absorb chemicals like DDT, PCBs, and mercury on their surfaces and harm birds and marine animals that often mistake them for food.” Chloe Skye, *What Are Nurdles and Why Should You Care?*, EARTH 911 (Nov. 10, 2020), <https://earth911.com/eco-watch/pollution/what-are-nurdles-and-why-should-you-care/>.

¹¹¹ Degnarain, *supra* note 106.

¹¹² *Id.*

¹¹³ This is due to damages being computed based on the tonnage of the ship, not the amount of damage caused. Liability is limited to an aggregate maximum of 89,770,000 SDR (roughly \$128 million). See U.N.C.T.A.D., *supra* note 38, at ¶ 101-02, 152.

¹¹⁴ Bunker oil liability is computed based on the following formula:

“(a) for a ship not exceeding 5,000 grt, 4,510,000 SDR.

Convention, damages to a Member State are awarded based on the gross weight of the vessel causing the pollution, not the actual amount of oil released, or the costs incurred by the spill.¹¹⁵ Although this method of calculation works favorably for large ships that only spill a small amount of oil, this creates a large disparity in potential damage liability for smaller ships releasing disproportionately large amounts of bunker oil and causing extensive damage.

Although the Bunker Oil Pollution Convention was modeled on the 1992 CLC, there is a drastic difference in how the coverage is layered.¹¹⁶ The CLC-IOPC Fund Regime has up to three layers of coverage protection for Member States.¹¹⁷ The Bunker Oil Pollution Convention has only one layer of coverage based on the polluting ship's gross weight.¹¹⁸ However, this convention allows the shipowner to limit their liability further based on national or international regimes that would apply in the states involved.¹¹⁹ This caveat creates a major weakness in coverage because the shipowner may be able to hide behind separate existing regimes that could have even lower limits of liability.¹²⁰ This adds yet another layer of complication and confusion because the owners and states involved have to commit their time and financial resources to determine what regimes are in play.¹²¹

To illustrate the potential damage, take for example a 40,000 gross tonnage non-oil tanker vessel that is grounded and causes bunker oil to damage a Contracting State. That state can recover a maximum of \$21.5

(b) for a ship with a tonnage between 5,000 and 140,000 grt, 4,510,000 SDR plus 631 SDR for each additional unit of tonnage.

(c) for a ship exceeding 140,000 grt, there is a maximum limit of 89,770,000 SDR." *Id.* at ¶ 152.

¹¹⁵ *Id.*

¹¹⁶ Compare U.N.C.T.A.D., *supra* note 66 (table 2), with U.N.C.T.A.D., *supra* note 113 (formula).

¹¹⁷ Tier one: 1969 CLC and 1992 CLC, Tier 2: 1992 Fund Convention, Tier 3: 2003 Supplementary Fund. U.N.C.T.A.D., *supra* note 38, at ¶ 24-25, 32.

¹¹⁸ *Id.* at ¶ 102; U.N.C.T.A.D., *supra* note 113 (formula).

¹¹⁹ U.N.C.T.A.D., *supra* note 38, at ¶ 103.

¹²⁰ *Id.*: "First, it leaves uncertain what level of liability for bunker pollution shall apply, as limitation amounts and rights are left subject to the law of the country where pollution occurs. Some countries, like Singapore and Sweden, are parties to one of the limitation conventions; Link to the text of the note others, including the UK and Canada, have extended the CLC regime to bunker spills; of the rest, some may have special laws, like OPA in the US, dealing with spill liability and limitation, while others, like China, may have no limitation law applicable to pollution damage. If a country with no limitation law becomes party to the BC, a shipowner's liability for bunker pollution damage there will be unlimited. Not only does this afford parties liable for similar damage very different ceilings of limitation, but it also leaves them unable to evaluate the various financial risks they face from jurisdiction to jurisdiction as a result of bunker spills." Chao Wu, *Liability and Compensation for Bunker Pollution*, 33 J. Mar. L. & Com. 553, 561-62 (2002).

¹²¹ U.N.C.T.A.D., *supra* note 38, at ¶ 103.

million under the Bunker Oil Pollution Convention.¹²² However, if a vessel of that same size were an oil tanker, the Contracting State could recover over \$1 billion under the CLC-IOPC and Supplementary Funds. Based on the costs associated with the clean up after the *Kure* spill, even without accounting for inflation, a cruise ship or large container ship releasing less than just 10% of its bunker oil could cost the victim state over \$1 billion.¹²³

C. SIDS are not Always Member States of the Bunker Oil Pollution Convention

The Bunker Oil Pollution Convention has been ratified by 92 UN Member and Associate Member States.¹²⁴ As of March 2021, the IMO reports that only 26 of the 58 SIDS have ratified this convention.¹²⁵ Experts in the field suggest several reasons for the lack of SIDS that have ratified this convention.¹²⁶ These conventions have typically been aimed at, and ratified by, nations that are major players in the oil industry, so some SIDS do not see them as relevant to their remote nations.¹²⁷ For others it is as simple as the belief that the odds are just too low that an incident like this would happen to them.¹²⁸ However, there are several more nuanced reasons that likely affect many of these nations. Most of these governments are very small and have to manage many pressing issues on a daily basis.¹²⁹ To divert time, energy, and resources to ratifying UN conventions is a very low

¹²² “For a vessel of 40,000 GT the limitation would be: (1,000,000SDR) + (400SDR x 28,000) + (300SDR x 10,000) = 15,200,000 SDR 15.2 million SDR = about 24 million USD.” *Entry into force of Bunker Convention*, GARD NEWS, <http://www.gard.no/web/updates/content/52003/entry-into-force-of-bunker-convention> (last visited Oct. 23, 2020); *The Currency Converter*, COINMILL, https://coinmill.com/SDR_USD.html#SDR=15200000 (last visited on Oct. 23, 2020).

¹²³ 1,000,000,000/\$447,619 = 2,234 barrels, 2,234 barrels = 93,829 gallons. UNIT CONVERTER, *supra* note 105 ; Cruise ships hold about 1-2 million gallons, while large container ships carry around 4 million gallons. N.O.A.A. OFF. RESPONSE & RESTORATION, *supra* note 81.

¹²⁴ *Status of Conventions*, *supra* note 80.

¹²⁵ Bahrain, Comoros, Mauritius, Seychelles, Singapore, Antigua and Barbuda, Bahamas, Barbados, Belize, Grenada, Guyana, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Fiji, Kiribati, Marshall Islands, Nauru, Palau, Tonga, Tuvalu, Vanuatu. *Id.*

¹²⁶ Email from Nishan Degnarain, *supra* note 6; Telephone Interview with Paolo Tibaldeschi, *supra* note 22.

¹²⁷ Telephone Interview with Paolo Tibaldeschi, *supra* note 22.

¹²⁸ *Id.*

¹²⁹ Mauritius Government spending: “The latest value from 2020 is 2.01 billion U.S. dollars. For comparison, the world average in 2020 based on 128 countries is 60.60 billion U.S. dollars” *Mauritius: Government spending, in dollars*, GLOB. ECON., https://www.theglobaleconomy.com/Mauritius/government_spending_dollars/ (last visited Nov. 11, 2021).

priority for some of these nation's governments.¹³⁰ Unfortunately, some SIDS choose not to ratify these conventions because they fear pursuing extensive legal action could lead to retaliation, like reduced aid packages, from wealthy nations that are home to corporations liable for damages.¹³¹

There is also the question of who this convention actually protects.¹³² It imposes strict liability on the shipowners that cause pollution, but some SIDS feel that this convention actually allows the shipowner to escape from a great deal of liability beyond the Convention's limits.¹³³ This leads some SIDS to believe that by not ratifying they may actually be able to recover higher amounts than under the Convention.¹³⁴ However, the disparity in bargaining power, and the financial interests of the wealthier nations that are home to major shipping corporations, can influence the outcomes, leading to an unfavorable recovery for states who have not ratified the Convention.¹³⁵ The *MV Wakashio* is operated by the world's second largest shipping company who reported that this disaster would not have a significant impact on their earnings for the year.¹³⁶ If the largest corporations are allowed to put an entire nation's wellbeing at risk and face minimal consequences, it is time to rethink the current policies.

V. IMPLEMENTATION OF POLICY SOLUTIONS

Bunker oils have been banned by the IMO in Antarctic waters since 2011, and recently the IMO approved a ban on bunker oil in Arctic waters

¹³⁰ Email from Nishan Degnarain, *supra* note 7; Telephone Interview with Paolo Tibaldeschi, *supra* note 22. The islanders primary focus is on fishing, so to concern themselves with the oil shipping conventions is beyond the scope of their priorities. *Id.* Issues these nations are facing beside just oil spills include devastating consequences from climate change and potentially long-term economic damage from COVID. Asariotis & Premti, *supra* note 3.

¹³¹ Retaliation could likely be in the form of reduced or completely negated aid from the countries that are home to the large shipping corporations. Maxine Burkett, *A Justice Paradox: On Climate Change, Small Island Developing States, and the Quest for Effective Legal Remedy*, 35 U. HAW. L. REV. 633, 643 (2013); The Bunker Oil Convention does not offer "responder immunity" so states are urged to "introduce legal provision for the protection of persons taking measures to prevent or minimize the effects of bunker oil pollution." Gutiérrez, *supra* note 89, at 240.

¹³² Email from Nishan Degnarain, *supra* note 7.

¹³³ *Id.*

¹³⁴ *Id.*

¹³⁵ "The Japanese media were reporting on 1 September that the Mauritian Government and Japan were in secret talks for quick \$34 million deal for the cleanup of the *Wakashio* oil spill. The funds would reportedly be used for the purchase of 100 new fishing vessels." *Id.*

¹³⁶ "The *Wakashio* was owned by Japan-based Nagashiki Shipping, but operated by Mitsui O.S.K. Lines (MOL), the world's second largest shipping company that earned \$12 billion in revenue last year. Mitsui O.S.K. is one of Japan's most powerful corporations." *Id.*

taking effect in 2024.¹³⁷ Banning all bunker oil in these areas will eliminate bunker oil spills from ships in these areas, but a global ban on all ships that use bunker oil is not a realistic solution.¹³⁸ Knowing that the use of bunker oil is going to continue, there are two reasonable methods to accomplish an expansion of coverage based on the current conventions. First, the IMO and the Member States of the 1992 Fund Convention and 2003 Supplementary Fund could amend the conventions to redefine the term “ship” to include vessels that do not transport oil as cargo.¹³⁹ This would increase the limit of bunker oil spill liability to over \$1 billion.¹⁴⁰

The downside of these two conventions is that they require Member States to financially contribute to the fund on a yearly basis. For SIDS, which often have minimal, if any, excess capital available, this could be a prohibitive expense. Of course, if the IMO and Member States are willing to recognize these issues and amend the current conventions with the intent to protect SIDS, they should also include in the amendment a waiver for all coastal and island states that are below a certain economic threshold.

The second potential method is to adopt a new convention that adds a second layer of coverage, governed by a uniform limit of liability, to the Bunker Oil Pollution Convention.¹⁴¹ Similar to how the 1992 Fund Convention sits above the 1969 CLC and 1992 CLC, the new convention would provide a second tier to the Bunker Oil Pollution Convention, providing much needed extended protection. Like the 1992 Fund

¹³⁷ Jonathan Saul, *U.N. approves ban on heavy ship fuel in Arctic*, REUTERS (Nov. 20, 2020, 8:25 AM), <https://www.reuters.com/article/shipping-arctic-imo-idINKBN2801SJ>.

¹³⁸ *Id.* Environmentalists are not happy with the number of exemptions and waivers included in the IMO’s ban, which they say will delay the true ban until 2029. *Id.*

¹³⁹ U.N. Charter art. 109:

1. A General Conference of the Members of the United Nations for the purpose of reviewing the present Charter may be held at a date and place to be fixed by a two-thirds vote of the members of the General Assembly and by a vote of any nine members of the Security Council. Each Member of the United Nations shall have one vote in the conference.

2. Any alteration of the present Charter recommended by a two-thirds vote of the conference shall take effect when ratified in accordance with their respective constitutional processes by two thirds of the Members of the United Nations including all the permanent members of the Security Council.

3. If such a conference has not been held before the tenth annual session of the General Assembly following the coming into force of the present Charter, the proposal to call such a conference shall be placed on the agenda of that session of the General Assembly, and the conference shall be held if so decided by a majority vote of the members of the General Assembly and by a vote of any seven members of the Security Council.

¹⁴⁰ U.N.C.T.A.D., *supra* note 38, ¶ 36 tbl. 2.

¹⁴¹ U.N. Charter art. 108:

Amendments to the present Charter shall come into force for all Members of the United Nations when they have been adopted by a vote of two thirds of the members of the General Assembly and ratified in accordance with their respective constitutional processes by two thirds of the Members of the United Nations, including all the permanent members of the Security Council.

Convention, coverage would not have to be exclusive to SIDS, as any nation with a coast exposed to non-oil tanker vessels would benefit from added protection.¹⁴² Additionally, like the 1992 Fund Convention, the new layer could have a minimum quota on a designated metric to allow the smallest and least financially stable countries to gain coverage without the yearly expenses. The 1992 Fund Convention quota is based on oil imports,¹⁴³ which would not be applicable to bunker oil protection, but they could use population, GDP, or UN classification as a Small Island Developing State to determine which nations would be exempt.

CONCLUSION

“Those who cannot remember the past are condemned to repeat it.”¹⁴⁴ Situations unfolding in countries like Mauritius and the Solomon Islands will continue to wreak havoc unless action is taken to protect these vulnerable nations. There is no question that SIDS, because of their vulnerable economies and ecosystems, need a level of protection from bunker oil spills that the current conventions are not able to provide. Though it may be easy to overlook the needs of any individual small island nation, SIDS account for over 73 million people,¹⁴⁵ over a trillion dollars in annual GDP,¹⁴⁶ and some of the rarest ecological features in the world.¹⁴⁷ When SIDS are decimated by oil spill disasters, the impact is felt on a global scale.

The IMO and the world’s governments must recognize the potential catastrophe awaiting each time a ship leaves a port. The world powers should not wait for another, even more devastating bunker oil disaster to occur before they act to increase protections. These topics need to be addressed now to protect the nations that need it the most.

*Michael Garland**

¹⁴² Some of the wealthier nations have not ratified the conventions, likely deciding to manage their own liability exposure. I.O.P.C. FUNDS, *supra* note 50.

¹⁴³ U.N.C.T.A.D., *supra* note 38, ¶ 57.

¹⁴⁴ RT Cunningham, *Those Who Cannot Remember the Past Are Condemned to Repeat It*, BLOGSPOT (Sept. 22, 2021), <https://rtcunningham.blogspot.com/2021/09/remember-past.html> (quote from *Reason in Common Sense* by George Santayana).

¹⁴⁵ 2020 World Population by Country, WORLD POPULATION REV., <https://worldpopulationreview.com/> (last visited Nov. 12, 2021).

¹⁴⁶ GDP Ranked by Country 2021, WORLD POPULATION REV., <https://worldpopulationreview.com/countries/countries-by-gdp> (last visited Nov. 12, 2021).

¹⁴⁷ CLIMATE CHANGE SECRETARIAT (UNFCCC), *supra* note 29, at 17–20.

* Michael Garland is an Associate Staff Editor for the Washington University Global Studies Law Review and a J.D. Candidate at the Washington University School of Law (2022).