

Asbestos-Related Issues
Impacting
Bangladesh Shipbreaking Laborers

Martin Ditkof
University of Colorado at Colorado Springs

History 7690
Dr. Samantha Christiansen
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mditkof@uccs.edu

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ABSTRACT

As shipbreaking has migrated over the last several decades from Global North countries to Global South countries, such as Bangladesh, India, and Pakistan, asbestos exposure and other health-related issues affecting the shipbreaking laborers in the Global South countries have become significant issues. In at least one scholarly publication, shipbreaking on the beaches of Bangladesh has been called the most dangerous occupation on the planet.

This research paper, using both a world-systems analysis in combination with the normalization of deviance concept, examines the historical basis for the development of asbestos-related health hazards arising from shipbreaking operations in Bangladesh. Applying the above-mentioned historiographical approach, the analysis focuses on the asbestos-caused health hazards experienced by the shipbreaking laborers, their families, and others in the area that arise from the asbestos fibers liberated from the vessels during the shipbreaking process. The analysis then identifies and discusses the practical limitations that prevent those affected from pursuing any remedies, either globally or under Bangladesh law and its political system, to compensate for their developing asbestosis, lung cancer, mesothelioma, or other asbestos-related illnesses.

After setting the foundation for the significant risk of injury, combined with the lack of remedies available to those most vulnerable, this paper then examines whether a right of action should exist that can be brought in a more meaningful platform such as that used in the United States. This paper analyzes whether such a right of action is justified based on concepts such as justice and morality because (1) of the contacts that the United States has with shipbuilding, shipping, and shipbreaking, (2) certain ships that were scrapped in Bangladesh were originally

manufactured in the United States, and (3) the financial benefits earned ancillary to facilitating the global use of the vessels by companies based in the United States. This analysis also identifies the difficulties in making such claims.

Key Words: Shipbreaking, Asbestos, Normalization of Deviance, World-Systems, Bangladesh, Asbestos Bankruptcy Trusts.



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Introduction

Shipbreaking (beaching and then recycling an ocean-going vessel or platform at the end of its useful life), as undertaken in Bangladesh, has been called the most dangerous job on the planet.¹ Photographer Ryan Nigel Scheemaker describes the harsh conditions of shipbreaking based on what he saw during his 2008 trip to Chittagong, Bangladesh:²

One of my most memorable trips and most horrific ones. I've been in life threatening situations like hanging of cliffs, gunpoint, extreme weather, etc. but this is something of a different level. Besides the fact that it is an ecological disaster, it is also a humanitarian disaster. This is about how low humanity can go. And I think humans can go even lower as we haven't seen the worst we can do to each other and to the planet.³

Others describe this location as a “toxic hotspot,” a “sacrifice zone,” and a “pollution haven.”⁴ Shannen Trout stated in 2018 that, “[h]ere health and safety standards are nominal and the environment has little standing when set against basic human survival.”⁵ Compounding this risk of serious injury, the laborers live in extreme poverty, lack access to educational opportunities, and possess limited alternative employment options.⁶ The following was stated on April 19, 2023 by a shipbreakers' union leaders:

I have noticed such an disappointment on the faces of the workers who have been working in this sector for a pretty long time. They told that in no way they could

¹ M. Jamaluddin Ahmed and Md. Nazrul Islam, *The Most Dangerous Job on the Planet' – Ship-breaking in Bangladesh*. Germany: LAPP Lambert Academic Publishing, 2016, 200.

² In 2018, the Bangladeshi government officially changed the name of the city formerly known as Chittagong to Chattogram under the rationale that Chattogram better reflected the Bengali spelling and pronunciation of the city, rather than Chittagong which is the name given to the city by the British in the colonial era. As this change is relatively recent, both names still appear in both media and scholarly sources. The reader should note that Chattogram and Chittagong are used interchangeably in this article.

³ Ryan Nigel Scheemaker, “ryannigelphotography.com: Travel and Landscape Photography,” Accessed April 10, 2023, <https://ryannigelphotography.com/ship-breaking-chittagong-bangladesh/>. (Typos in the original corrected).

⁴ Scott R. Frey, “Breaking Ships in the World-System: An Analysis of Two Ship Breaking Capitals, Alang-Sosiya, India and Chittagong, Bangladesh,” *Journal of World-Systems Research*, Volume 21, Number 1, Winter/Spring 2015, 25-49, 27 and 29.

⁵ Shannen Trout, “First World Problems, Developing World Impacts: An Assessment of the Adequacy of the Law of Shipbreaking.” *Plymouth Law and Criminal Justice Review*, 2018, 43. <https://www.plymouthlawreview.org/vol10/Shannen%20trout%20final.pdf>.

⁶ Md Saiful Karim. *Shipbreaking in Developing Countries: A Requiem for Environmental Justice from the Perspective of Bangladesh* (New York: Routledge, 2018), 125.

manage their expenses according to their earnings. Though our government had published the minimum wage of 16000/-taka in a gadget in the year 2018, workers did not get it yet. What is offered to the workers in the name of Eid bonus is not enough to treat that amount as bonus (little money). There is no benefit for the workers as written in the Labour Law. Shipbreaking is one of the most accidental industries in the world, there are risk at every step and all time.⁷

To photographers such as Scheemaker, pictures paint the ultimate story. According to Scheemaker's eyewitness statement, the living conditions are beyond humanity while the shipbreaking process combines environmental disaster with a form of human slavery.⁸



⁷ Signal email on April 19, 2023 from shipbreakers to the author, names to remain undisclosed. Author retains original. (This language was through a translator).

⁸ Ryan Nigel Scheemaker, Interview by Martin Ditkof, April 2, 2023. (Original with Author).

⁹ Photographs taken by Ryan Nigel Scheemaker depicting a shipbreaking yard in Chittagong, 2008.

One of the health hazards faced by these laborers involve respiratory complications arising from inhaling the asbestos fibers released during the recycling process.¹⁰ The health peril arising from the shipbreaking laborers' inhaling these airborne asbestos fibers, along with the lack of any remedy for asbestos-caused illnesses, forms the poster child for economic injustice.

This paper analyzes shipbreaking in Bangladesh intersecting with the release of asbestos fibers during that recycling process, in the context of those parties who financially benefit from the entire global shipping system or network, including ship building, transportation, and end-of-life disposal. Taking into consideration the substantial barriers to protect or compensate the shipbreaking laborers within in the Bangladeshi legal system from the asbestos exposure, this paper then examines whether countries such as the United States that participate in and financially benefit from the global shipping system should provide the Bangladeshi shipbreaking laborers with jurisdiction to pursue remedies for the asbestos-related illnesses resulting from their occupation and, if so, under what circumstances.

Historiography and Methodology

Historically, societies such as the United States handled much of their own shipbreaking. However, the toxic materials used during ship construction, such as asbestos, along with adverse publicity have made commercial shipbreaking less profitable and more difficult in countries with more robust laws and regulations that protect workers and the environment. As such, many of these ships are now sent for recycling to Global South countries that have fewer regulatory barriers protecting the environment and the health of laborers; Bangladesh is one of these

¹⁰ "Stone cold killers – 11 of the world's most dangerous minerals," *Mining Technology*, May 1, 2014. Accessed March 18, 2023. <https://www.mining-technology.com/features/featurethe-11-most-dangerous-minerals-4256873/>.

Trevor Nace, "9 Deadliest Rocks and Minerals on Earth," *Forbes*, (February 14, 2016). Accessed March 18, 2023, <https://www.forbes.com/sites/trevornace/2016/02/14/9-deadliest-rocks-and-minerals-on-earth/?sh=23a403c2659b>.

countries.¹¹ This research paper applies a world-systems framework to shipbreaking to highlight that: (1) the combination of shipbuilding, ship transportation for goods and passengers, and shipbreaking provides significant benefits to Global North countries at a cost of horrific health damages to the laborers in the Global South that would not be allowed in the Global North, and (2) asbestos as a global commodity has enriched the Global North countries at the expense of laborers' health in periphery countries such as Bangladesh. Having set the above foundations, this paper examines whether a right of action should exist that can be brought in a more meaningful platform, such as in the United States.

The existing scholarly literature discussing Bangladesh shipbreaking workers safety issues in general, and asbestos-related issues in particular, is extensive. The historiographical approaches, however, generally focus on the plight of the laborers being unacceptable and unsustainable long term, with the authors then providing recommendations to improve the safety and sustainability of the industry within Bangladesh. Roland Buerk, in his 2006 book titled *Breaking Ships: How Supertankers and Cargo Ships are Dismantled on the Beaches of Bangladesh*, focuses on the scrapping process and flow of components post-dismantling.¹² M. Jamaluddin Ahmed, in his 2015 publication titled *'The Most Dangerous Job on the Planet' – Ship-breaking in Bangladesh*, evaluates then-current environmental concerns, develops baseline measures to track future changes, and recommends changes in health and environmental

¹¹ The term Global South is used to describe less developed countries previously referred to as third world. The term Global North is used to describe countries historically thought as more developed. In a world-system analysis, the Global North is at times referred to as a "core" country while the Global South is called a "peripheral." Because many authors use the phrases interchangeably as they have evolved over time, this paper will also use them interchangeably.

¹² Roland Buerk, *Breaking Ships: How Supertankers and Cargo Ships are Dismantled on the Beaches of Bangladesh*, New York: Penguin Group (USA) Inc., 2006.

practices needed to develop “sustainable practices of Ship-breaking activities.”¹³ In *Shipbreaking in Developing Countries: A Requiem for Environmental Justice from the Perspective of Bangladesh*, Md Saiful Karim focuses on global and local laws, treaties and regulations which, for this research thesis, is helpful in laying a foundation upon which to base potential claims.¹⁴ Each of these books mentions asbestos, but none in depth, as the authors focus on other more visible, measurable, and immediate health and environmental issues. In addition to the above books, Ishtiaque Ahmed published six scholarly articles arising from his PhD dissertation between 2020 and 2022 that discuss the global movement on sustainable shipbreaking in Bangladesh, socio-economics and ecological distribution in shipbreaking in Bangladesh, the Hong Kong Convention for shipbreaking, the Basel Convention as it involves toxic substances during shipbreaking, the state of international law for shipbreaking, and the roles of participants in shipbreaking within Bangladesh.

A review of the scholarly literature identifies extensive additional articles discussing health risks, including asbestos exposure, to shipbreaking workers in Bangladesh and similarly-situated countries such as India and Taiwan.¹⁵ As stated in one such study on shipbreaking workers in Taiwan, “[o]verall, the study confirms a positive link between cancer incidence and

¹³ M. Jamaluddin Ahmed, et al., *The Most Dangerous Job on the Planet’ – Ship-breaking in Bangladesh*, (Germany: LAPP Lambert Academic Publishing, 2016), 200.

¹⁴ Md Saiful Karim, *Shipbreaking in Developing Countries: A Requiem for Environmental Justice from the Perspective of Bangladesh*, (New York: Routledge, 2018).

¹⁵ Richa Singh et al., “Assessment of the future mesothelioma disease burden from past exposure to asbestos in ship recycling yards in India,” *International Journal of Hygiene and Environmental Health*, 225, 2020, 113478, 1-6.

Wei-Te Wu, et al., “Cancer incidence of Taiwanese shipbreaking workers who have been potentially exposed to asbestos,” *Environmental Research*, 132, (2014), 370-378.

W. Lin Wu, et al., “Asbestos exposure increases risk of cancer in ship recycling workers,” *Science for Environment Policy*, Ship recycling: reducing human and environmental impacts, (European Commission, June 2016, Issue 55), 7-8.

Venkiteswaran Muralidhar, “Parenchymal asbestosis due to primary asbestos exposure among ship-breaking workers: report of the first cases from Bangladesh,” *BMJ Case Rep*, 2017, 1-6.

Mindori N. Courtice, et al., “Asbestos-Related Disease in Bangladeshi Ship Breakers: A Pilot Study,” *Int. J Occup Environ Health* 2011; 17, 144-153.

asbestos exposure among shipbreaking workers.”¹⁶ These studies, however, primarily focus on the anticipated disease burden arising from the asbestos exposure in this occupation.

Two articles by world-systems environmentalist Professor R. Scott Frey, who passed away in 2018, are worth mentioning. The first is a 2006 article titled “The International Traffic in Asbestos.”¹⁷ Professor Frey used this article to analyze “one core-based hazardous export, asbestos, and the role played by Canada in the export of asbestos to the periphery.”¹⁸ He then, after analyzing the transfer of health and safety risks from the core country to the peripheral countries, discusses potential resolutions to more equally allocate the risks. Professor Frey’s second article was published almost a decade later in 2015 and is titled “Breaking Ships in the World-System: An Analysis of Two Ship-Breaking Capitals, Alang-Sosiya, India and Chittagong, Bangladesh.”¹⁹ In this article, Professor Frey uses secondary sources to undertake a world-system analysis on the process of ecological unequal exchange in global shipping and shipbreaking. Professor Frey concludes that “[m]uch more research is needed on core capital accumulation through (semi) peripheral contamination and the process of ecological unequal exchange.”²⁰ Since that time, little novel work has been published combining the world-systems framework with the totality of shipbuilding, shipping, and shipbreaking in the context of asbestos.

A number of other publications exist that generally discuss asbestos in the context of shipbreaking. Of these, Nicky Gregson’s 2010 article titled “Inextinguishable fibres: demolition

¹⁶ W. Lin Wu, 8.

¹⁷ R. Scott Frey, “The International Traffic in Asbestos,” *Nature, Society, and Thought*, Volume 19, Issue 2, (2006), 173-180.

¹⁸ *Ibid.*, 173.

¹⁹ R. Scott Frey, “Breaking Ships in the World-System: An Analysis of Two Ship Breaking Capitals, Alang-Sosiya, India and Chittagong, Bangladesh,” *Journal of World-Systems Research*, Volume 21, Number 1, Winter/Spring 2015, 25-49.

²⁰ *Ibid.*, 41.

and the vital materialisms of asbestos” contains an excellent discussion on asbestos issues that arise from shipbreaking in the European Union. Gregson recognizes the lack of scholarly research in the issue, stating that: “One reason why it matters to pay demolition attention is to recover it from the academic neglect in which it has languished, at least in so far as the social sciences are concerned (cf Byles, 2005).”²¹

In addition to the work on shipbreaking within the world-system global shipping network, this research paper addresses how the normalization of deviance concept adds additional complexity to identifying and rectifying the asbestos health-related hazards. The seminal work on normalization of deviance was undertaken by Professor Diane Vaughn in the context of the 1986 Space Shuttle Challenger tragedy.²² Vaughn describes the concept as follows:

The first decision establishes a precedent that becomes a normative standard for future decisions in similar cases, paving the way for development of a pattern. Why does it become a precedent, a normative standard, and thus an aspect of culture?²³

The product analyzed by Vaughn was different than ocean going vessels, but the structure of the analysis is remarkably on point when discussing the manifestation of asbestos-related injuries to shipbreakers occurring remote in time from their asbestos exposure. The argument focuses on how the initial decisions institutionalize deviations from good practices, so that those involved are no longer aware that the conduct creates a risk to safety. Because of the delay between the conduct and the potential injury manifestation, the hazardous conduct is not recognized as

²¹ Nicky Gregson et al., “Inextinguishable fibres: demolition and the vital materialisms of asbestos,” *Environmental and Planning A*, Volume 42, 2010, 1068.

²² Diane Vaughan, *The Challenger Launch Decision: Risky Technology, Culture, and Deviance at NASA* (Chicago: The University of Chicago Press, 1996).

²³ *Ibid.*, 112.

problematic or it is viewed as insignificant in the context of other more immediate potential health-related problems.

Asbestos and Ships: Where it all Began

In its early days of commercial use, back to the 1880s, asbestos was called “a magic mineral” as it prevented disasters such as theater curtain fires and had almost unlimited applications for which there were few substitutes.”²⁴ The use of asbestos on vessels is documented as early as 1883 through advertising literature.²⁵ Even though there exist six distinct types of asbestos fibers and many different grades, asbestos is considered a global commodity that is mined and sold throughout the world.²⁶ It has characteristics of the mineral, vegetable, and animal kingdoms.²⁷



²⁴ Ralph E. Oesper, *Asbestos Fundamentals*. (New York: Chemical Publishing Company, Inc, 1963), 10-14.

²⁵ “Bell’s Asbestos,” *The Shipping World – Advertisements*, June 1883. (Coating pipes and boilers on marine engines).

²⁶ Frey, R. Scott, *The International*, 25-26.

²⁷ Martin Ditkof, “Asbestos: the Connecting Link joining the Animal, Vegetable, and Mineral Kingdoms?” *The Asbestos Blog*. Accessed May 1, 2023. <https://theasbestosblog.com/?p=10413>.

²⁸ Photograph Origination Unknown. Depicts an asbestos fire suit.

²⁹ Photograph Origination Unknown. Depicts Johns-Manville calling asbestos a magic mineral.

The serious potential delayed health hazards associated with the inhalation of asbestos fibers were known as early as the 1930s and, often times, were downplayed or ignored as the use of asbestos products expanded.³⁰ By the 1960s, however, diseases related to the occupational inhalation of asbestos became well known.³¹ At its height during the 1960s and 1970s, asbestos was used in over 3,000 products. The United States was the principal fabricator and user of asbestos fibers, using 31.5 million metric tons of the 181 million metric tons produced worldwide between 1900 and 2003, of which 50% was used after 1960, in spite of the need to import from Canada and elsewhere the overwhelming amount of the raw fibers.³²

The use of asbestos on vessels is governed by the International Convention for the Safety of Life at Seas (SOLAS), 1974. Under SOLAS, which has been amended on several occasions to ensure it is up to date, ships built prior to July 1, 2002 are not restricted in the use of asbestos other than requiring good housekeeping practices. For ships built between that date and January 1, 2011, most new installations of asbestos-containing materials were banned, and for ships built after January 1, 2011, all new installation of asbestos-containing materials are prohibited.³³ Prior to July 1, 2002, amosite, chrysotile, and crocidolite asbestos fibers were used on vessels in many maritime components such as pipe covering, wall boards, and boiler insulation. S. M. Yahya in his 2012 article lists a minimum of 18 different types of locations on a ship.³⁴ The

³⁰ Martin Ditkof, "Short Blog For this Week. The 1930s: When Asbestos Companies Knew that they had a Health Problem," *The Asbestos Blog*. Accessed May 1, 2023. <https://theasbestosblog.com/?p=10854>.

³¹ Alice Hamilton and Harriet Hardy, *Industrial Toxicology 3rd Edition*, (Action, Massachusetts: Publishing Sciences Group, Inc. (1974), 421.

³² United States Department of the Interior. "Worldwide Asbestos Supply and Consumption Trends from 1900 through 2003." *Circular 1298*. (Reston Virginia: U.S. Geology Survey, 2006, 1.

³³ International Maritime Organization, "Asbestos on board ships," *International Convention for the Safety of Life at Sea (SOLAS), 1974*. December 2020 Amendments. Accessed January 17, 2023. <https://www.imo.org/en/OurWork/Safety/Pages/Asbestos.aspx>.

³⁴ Yahya, S.M. et al, "Environmental Impact Assessment of Ship Breaking and Recycling Industries – A Case Study for Bangladesh," *International Journal of Social and Human Sciences* (6), 2021, 410. https://www.researchgate.net/publication/278243171_Environmental_Impact_Assessment_of_Ship_Breaking_and_Recycling_Industries_-_A_Case_Study_for_Bangladesh.

guidelines for shipbreaking adopted by the International Maritime Association require developing an asbestos abatement plan that includes a process, monitoring, and controls to “prevent exposure of workers and the environment.”³⁵ Without adequate precautions, these fibers are liberated during the recycling process and make their way into the air, land, and water. Alam estimates that 79,000 tons of various types of asbestos toxic wastes are at the Chittagong coast arising from the shipbreaking industry.³⁶ Further, during the recycling process, the usable asbestos components are removed from the ships and recycled in Bangladesh into household goods such as tables, stoves, and rooftops; all providing further exposures and health risks to people in the area.

Over time, the global health hazards associated with asbestos fibers during mining, product manufacturing, use, and end-of-life were generally recognized and, as such, limited the market for exporting countries to sell into importing countries such as the United States. The exporters, including Canada, with a financial stake to continue the mining, developed new markets in the less sophisticated and poorer countries such as Bangladesh. As stated in 2006 by Professor Frey:

Since the Canadian and Quebec governments have a financial stake in continued asbestos mining and production, as does the asbestos industry, efforts have been undertaken to revitalize the market. The state and the asbestos industry have spent millions of dollars in the marketing and promotion of asbestos in the peripheral countries. The benefits of asbestos have been emphasized and its risks suppressed.³⁷

See also, United States Environmental Protection Agency, Office of Enforcement and Compliance Assurance, *A Guide for Ship Scrappers: Tips for Regulatory Compliance*, EPA 315-8-00-001, Summer 2000, Section 2-3.

³⁵ International Maritime Organization, “Guidelines for the Development of the Ship Recycling Plan,” 12 November 2004, Annex Section 3.2.10.

³⁶ Wahidul Alam, Xu Xiagmin, Ma Yingile and Sara Qayum, “Suggested legal framework for prevention of shipbreaking pollution at Chittagong Coast, Bangladesh with analysis of relevant international issues,” *Indian Journal of Geo Marine Sciences*, Vol 47 (04), April 2018, 755.

³⁷ Frey, *The International*, 175.

Arthur Rose, in his 2022 book titled *Asbestos-The Last Modernish Object*, discusses how both the benefits and the dangers of asbestos are viewed in society through literature.³⁸ Rose discusses in detail that asbestos, as a commodity, has four parts: (1) extraction at the mine, (2) manufacture in the factory, (3) consumption, and (4) abatement or disposal.³⁹ These parts must, by necessity, be viewed as interrelated within a global world-system. Similarly, Jessica van Horssen, in her book chapter titled “Locality and contamination along the transnational asbestos commodity chain” provides an excellent example of how asbestos travels globally in a commodity chain, starting with mining in Canada and then moving to manufacturing in England.⁴⁰ These scholarly works show that asbestos is very much an international commodity that is transferred and transformed from country of mining to country of manufacture, used globally and, finally, recycled or discarded at the lowest cost. The life cycle begins, matures, and then ends (or it is recycled), with all phases of the cycle being essential to an integrated global world-system of both Global North and Global South countries. The parts cannot efficiently function without such a global coordination.

As to the medical issues, the World Health Organization estimates that approximately 50% of all occupational cancers are caused by exposure to asbestos.⁴¹ Studies on shipbreaking laborers, including those in Bangladesh, show that they are at an increased risk asbestos-related diseases. The published study by Venkiteswaran Muralidhar in 2017 on 94 long-term Bangladeshi shipbreakers (ten years or more of asbestos exposure) is especially noteworthy as it

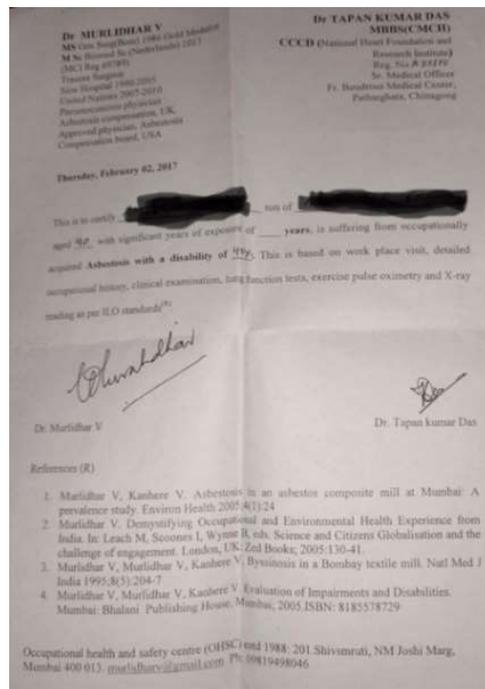
³⁸ Arthur Rose, *Asbestos – The Last Modernist Object*, (Edinburgh; Edinburgh University Press, 2022).

³⁹ *Ibid.*, 152.

⁴⁰ Jessica Van Horssen, “Chapter 4: Locality and contamination along the transnational asbestos commodity chain.” *Histories of Technology, the Environment and Modern Britain*, 2018,, 62—75. Accessed January 31, 2023. <https://www.jstor.org/stable/j.ctvqhsmr.8>.

⁴¹ World Health Organization. “Asbestos: elimination of asbestos-related diseases.” (15 February 2018), Accessed May 1, 2023. <https://www.who.int/news-room/fact-sheets/detail/asbestos-elimination-of-asbestos-related-diseases>.

showed that 35% of the workers were significantly affected by asbestosis, a disease that limits the ability to breathe.⁴² Dr. Muralidhar believes that asbestos is a major hazard during shipbreaking in Bangladesh and that asbestosis as an occupational disease is likely undercounted.⁴³ An example of Muralidhar's diagnosis form is:



Asbestos is but one peril faced by shipbreaking laborers in Bangladesh as they perform their jobs and move the recycled components to downstream factories and uses. It is unique, however, because of the substantial delay between exposure and disease manifestation. In order to understand the effect of this uniqueness, this paper will analyze the history of shipbreaking in Bangladesh, how the extensive time between exposure and the manifestation of asbestos-related

⁴² Venkiteswaran Muralidhar et al., “Parenchymal asbestosis due to primary asbestos exposure among ship-breaking workers: report of the first cases from Bangladesh,” *BMJ Case Rep*, 2017, 1-6. Accessed January 31, 2023. <https://casereports.bmj.com/content/2017/bcr-2017-222154>.

⁴³ *Ibid.*, 3.

⁴⁴ Anonymous. Photograph of asbestosis diagnosis of a Bangladeshi shipbreaking laborer obtained in the 2017 study by Dr. Muralidhar. Author retains original.

health hazard symptoms normalizes the lack of appropriate safety practices, and the risk to the shipbreaking laborers of asbestos health hazards.

1. Shipbreaking History in Bangladesh

Bangladesh is a densely populated coastal country in South Asia bordering Myanmar in the southeast, the Bay of Bengal in the south, and India in all other directions. It has 710 km of unbroken coastline adjacent to the Bay of Bengal. Within Bangladesh, Chittagong is an important Bay of Bengal port city and, over the last 40 years, has developed an active and thriving international beach shipbreaking industry.



The shipbreaking industry in Bangladesh began by accident in the 1960s and then rose to a prominent status following the 1971 Bangladesh Liberation War from Pakistan. There is some inconsistency, however, about the exact history. One version, as stated by Roland Buerk in *Breaking Ships: How Supertankers and Cargo Ships are Dismantled on the Beaches of Bangladesh*, is as follows:

The year 1965 was one of storms in the Bay of Bengal. One particularly violent tempest coincided with an unusually high tidal bore that swept north up the bay toward the mouth of the Ganges River. Some ships dashed for the safety of the harbor; others tried to ride it out at anchor. The master of one cargo ship was unlucky. His vessel ran firmly aground on the mudflats near the city of

⁴⁵ Drawing Origination Unknown. Depicts shipbreaking area of Chittagong, Bangladesh.

Chittagong. By the time the tide and the storm subsided she had been left stranded, well above the high-water mark.⁴⁶

This ship was stripped bare by local residents and businessmen, to the benefit of those involved.⁴⁷ Other authors claim that the ship *MD Alpine* was stranded during a cyclone in 1960 on the shores of Sitakunda, Chittagong and remained stranded until it was sold in 1965 to the Chittagong Steel House for scrapping.⁴⁸

Regardless of which history is accurate, the industry began to take off in Bangladesh after the 1971 war left a number of ships stranded along the beaches of Chittagong, in combination with the Global North countries no longer wanting the industry due to increased costs arising from environmental and health-related issues.⁴⁹ As stated by Md Saiful Karim:

On average, the commercial life of ships may extend to 25-30 years, after which ships go to shipbreaking yards for breaking or recycling. In the past, shipbreaking was a highly mechanized activity in some developed countries. Due to increasing costs associated with environmental, health and safety requirements, in developed countries, this industry was transferred to the beaches of developing countries including India, Bangladesh, China, Turkey and Pakistan.

The major catalysts for this shifting of the shipbreaking industry are cheap labour, weak regulatory systems and ever-increasing demand for steel. On average, each year 1,000 ships are sent to shipbreaking yards for disposal. Three South Asian countries, Bangladesh, India, and Pakistan, are currently responsible for disposal of around 70% of the obsolete ships.⁵⁰

Of these, as of 2015, Bangladesh was the largest shipbreaking operation in the world.⁵¹ At the same time that shipbreaking in Bangladesh was expanding, the Chittagong area was also developing the infrastructure for downstream activities, including the re-use of many

⁴⁶ Buerk, 89.

⁴⁷ Buerk, 90.

⁴⁸ Mortuza Ahsan, "Ship Scrapping Industry in Bangladesh," (2020). <https://www.linkedin.com/pulse/ship-scrapping-industry-bangladesh-mortuza-ahsan/>. Accessed March 29, 2023.

NGO Shipbreaking Platform, <https://shipbreakingplatform.org/our-work/the-problem/bangladesh/> n.d. Accessed February 3, 2023, Sara Costa, Email to Martin Ditkof, April 4, 2023 (original in file).

⁴⁹ Buerk, 90-94, Ahsan, 1, and Yahya, 408.

⁵⁰ Karim, 1.

⁵¹ Ibid.

components such as asbestos.⁵² Such re-use of asbestos brought with it negative environmental consequences as shown in the following photograph:



As to the importance of inexpensive labor without significant regulations, this is viewed by some as being critical for Bangladesh to stay a leader in the industry. Wages are at times as low as 70 takas a day (\$0.66 U.S.) and are paid only when the laborer is working.⁵⁴ As stated by Mortuza Ahsan, the CEO of Sea King Marine:

Although shipbreaking yards are one of the most dangerous industries in the world, and safety issues are often come up with high concerns, the market sentiment in Bangladesh is almost steady to strong. The availability of workers at a comparatively cheaper rate, easy documentation, less strictness on environmental issues and successive high demand for steel have make the industry stronger day by day.⁵⁵

⁵² N. M. Golam Zakaria, et al., “Underlying Problems of Ship Recycling Industries in Bangladesh and Way Forward.” *Journal of Naval Architecture and Marine Engineering.*, December, 2012, 99. https://www.researchgate.net/publication/272867928_Underlying_problems_of_ship_recycling_industries_in_Bangladesh_and_way_forward.

⁵³ Picture by Abul Kalam, within a Facebook posting in May 6, 2023.

⁵⁴ Trout, 46.

⁵⁵ Ahsan, 2.

Ahsan lists the following benefits that he believes help the industry's sustainability and growth:

1. Shipbreaking is a significant source of steel that, in turn, saves foreign currency exchange and the need to import steel materials. This has become especially important post-pandemic given Bangladesh's debt to the International Monetary Fund and need to conserve foreign currency;⁵⁶
2. Shipbreaking helps to develop heavy and light engineering companies and skills within Bangladesh;
3. As most items on the ships are recycled, reused, and resold, a significant number of local businesses exist;
4. Shipbreaking provides revenue to the government in the form of taxes; and
5. Shipbreaking employs, directly and indirectly, an enormous number of otherwise poverty-stricken citizens from the north of Bangladesh who otherwise would have no employment.

Ahsan acknowledges the safety concerns but believes that “[a]lthough it's a long way to go for the sake of safety to workers and the environment, Bangladesh is on the track.”⁵⁷ In summary, the economic and social opportunities outweigh the health and safety challenges for the good of the country.⁵⁸

Ahsan's opinion on Bangladesh improving the safety in shipbreaking is very much in the minority, although not without support claiming that individual shipbreaking yards in Bangladesh treat workers differently.⁵⁹ Even certain scholars rightfully advise that each shipbreaking yard handles safety in its own way, and some are better than others.⁶⁰ Also, Ahsan avoids discussing the organized crime within the shipbreaking yards, whose members resort to violence against the workers and others willing to openly discuss the industry, which is a

⁵⁶ International Monetary Fund, “IMF Staff Statement on Bangladesh, October 21, 2022 and January 30, 2023. Accessed April 30, 2023. <https://www.imf.org/en/News/Articles/2022/10/21/pr22360-bangladesh-imf-staff-statement>.

⁵⁷ Ahsan, 2-3. See also Yahya, 408.

⁵⁸ See also, Trout, 49.

⁵⁹ International Shipping News, “Why the Beaching Method of Ship Recycling Should not be Criticized,” *Hellenic Shipping News Worldwide*, November 8, 2020. Accessed May 1, 2023. <https://www.hellenicshippingnews.com/why-the-beaching-method-of-ship-recycling-should-not-be-criticized/>

⁶⁰ Moutushi Tanha et al., “Shipbreaking in Bangladesh: Organizational responses, ethics, and varieties of employee safety,” *Elsevier Journal of Safety Research*, 2021), 1. <https://www.sciencedirect.com/science/article/pii/S0022437521001201>.

different dynamic than pure occupational exposures to hazards, but still is relevant to the plight of the laborers.⁶¹ The overwhelming scholarly literature, however, claims that the current system is not sustainable given the treatment of the laborers by the owners. As stated by The NGO Shipbreaking Platform, “[c]oncerns include abysmal working conditions, fatal accidents, exploitation of child workers, and severe pollution of the marine environment as well as the dumping of hazardous wastes.”⁶² In spite of such opinions, the advantages for shipbreaking in that location are overwhelmingly essential for Bangladesh’s economic health, including meeting a strong domestic market for steel and other recycled materials, experiencing a temperate climate allowing year around activity, having high tides and similar conditions required for beaching vessels, and being in close proximity to important sea trade routes.⁶³ As stated by Wahidul Alam, “[s]hipbreaking has both positive ... and negative aspects and everybody can realize the importance of shipbreaking as it is a major source of the steel industry in globally [*sic*].”⁶⁴ Low cost and competitively priced shipbreaking, as such, is critical to Bangladesh. Further, all money spent on laborers that increases the cost of the shipbreaking is viewed by the shipbreaking company owners as putting the Bangladesh yards at a global economic disadvantage.

2. Normalizing the Lack of Appropriate Safety Practices because of Delayed Symptoms

Asbestos exposure is associated with a number of diseases but the three most prevalent arising from inhalation of the fibers during shipbreaking activities are: (1) asbestosis (a

⁶¹ Trout, 46.

⁶² NGO Shipbreaking Platform, <https://shipbreakingplatform.org/our-work/the-problem/bangladesh/> (No Date). Accessed February 3, 2023.

⁶³ Frey, *Breaking Ships*, 29.

⁶⁴ Alam, Wahidul et al., “Suggested legal framework for prevention of shipbreaking pollution at Chittagong Coast, Bangladesh with analysis of relevant international issues.” *Indian Journal of Geo Marine Sciences*, Vol 47 (04), April 2018, 752.

pulmonary fibrosis arising from the inhalation of asbestos fibers over time, which is very dose dependent), (2) lung cancer, and (3) mesothelioma cancer. Each of these diseases is a challenging diagnosis that involves a significant delay between exposure and symptom development.⁶⁵ Further, the asbestos fibers that are most dangerous are too small to be seen by the naked eye. As stated by Liseane Thives in 2022 during a review of the recent asbestos publications: “[a]lthough workers may be exposed to low doses of asbestos, the constant frequency of exposure to asbestos fibres represents a considerable health risk.”⁶⁶ Because of these factors, a shipbreaking laborer would typically not know the extent of asbestos exposure or the likelihood of developing an asbestos-related disease in the future.

In addition, the delay involved in the time between asbestos exposure and disease manifestation may well negatively affect a laborer’s attitude on asbestos safety. As stated by Trout, “[h]ealth is regarded as playing a lesser consideration to the desperation of the workers to put food on the table for their families ...”⁶⁷ This ties in directly with the normalization of deviance concept originally developed by Professor Diane Vaughn in her book titled *The Challenger Launch Decision: Risky Technology, Culture, and Deviance at NASA*. Professor Vaughn’s analysis focuses on how the initial decisions can institutionalize deviations from good practices, so that those people involved are no longer aware that the conduct creates a risk to safety. As stated in 2021 by Peter Furst: “Normalization of deviance is a phenomenon by which individuals, groups or organizations come to accept a lower standard of performance until that

⁶⁵ Liseane, Thives et al., “Is asbestos still a problem in the world? A current review,” *Elsevier Journal of Environmental Management*, 2022, 115716, 2. Accessed April 10, 2023. <https://www.sciencedirect.com/science/article/pii/S0301479722012890>.

⁶⁶ *Ibid.*, 2.

⁶⁷ Trout, 46.

lower standard becomes the ‘norm’ for them.”⁶⁸ This deviance from the original expectations is typically counter-productive to organizational goals and potentially hidden so that the laborers are not aware of the deviation.⁶⁹ These changes can further be hidden as they occur gradually.⁷⁰

Applying those concepts to the shipbreaking laborers’ situation, the exposure to asbestos is not immediately visible as the health issues may not arise for 10 to 40 years. During this extended latency, the deviation from good work practices becomes normalized in the shipbreaking process; that is, the hazardous conduct is not recognized as problematic or it is viewed as insignificant in the context of other more immediate potential health-related problems, such as physical injuries arising from explosions or falling metal. The laborers are understandably more concerned with known safety hazards leading to physical injury or death that can prevent them from providing for their families. In turn, they accept the unseen and not well comprehended long term risks related to asbestos exposure caused by poor working practices.⁷¹

3. The Risk to the Shipbreakers of Asbestos-Related Health Hazards

Cheap labor in the Bangladesh shipbreaking industry helps feed the fire that runs the country. This includes a labor force required to recycle 1.5 million tons of scrap steel per year, along with other materials.⁷² As discussed by Roland Buerk, the “individual is considered to be

⁶⁸ Furst, Peter, “Normalization of Deviations in Performance,” *Occupational Health & Safety Online*, October 1, 2021, 1. Accessed on January 31, 2023. <https://ohsonline.com/Articles/2021/10/01/Normalization-of-Deviations-in-Performance.aspx>.

⁶⁹ Pinto, Jeffrey K., “Project Management, governance, and the normalization of deviance.” *International Journal of Project Management*, June 4, 2013, 1. Accessed on January 31, 2023. <https://www.sciencedirect.com/science/article/pii/S0263786313000835>.

⁷⁰ *Ibid.*, 2.

⁷¹ Prielipp, Richard C. “The Normalization of Deviance: Do we (Un)Knowingly Accept Doing the Wrong Thing,” *International Anesthesia Research Society*, Vol 110:5, May 2010, 1499—1502. Accessed January 31, 2023. <https://pubmed.ncbi.nlm.nih.gov/20879628/>.

⁷² *Ibid.*

less important, especially if he is poor. A place where the sacrifices of the men in the ship-breaking yards are worthwhile if they provide the nation with the steel it needs.”⁷³ For many years, scholars and safety professionals have unsuccessfully raised warnings about the safety and health hazards experienced by that labor when cutting up asbestos on open beaches, including issues related to the inhalation and ingestion of asbestos fibers that are liberated during the shipbreaking and downstream activity.⁷⁴ Given the decision by those in authority not to incur the effort and expense required to implement the recommended safety protocols protecting against asbestos exposure, the status quo of the inertia is literally killing laborers. Although efforts to improve safety should and must continue, the historical lack of success leads to the conclusion that future attempts are likely to also be ineffectual.

In spite of the issues raised by Buerk, Karim, and many others, Ashan’s position that the shipbreaking business is sustainable long term in Bangladesh only by keeping the costs as low as possible is supported by the facts in the context of the global nature of the business. As an example, in 2006 when Buerk wrote his book on the Bangladesh recycling of the vessel named the *Asian Tiger*, it seemed like Bangladesh would lose its shipbreaking business to China as the steel mills in China were desperate for more recycled steel.⁷⁵ China then decided to go green by not allowing shipbreaking of foreign vessels, causing it to lose that business to the beaches of South Asia.⁷⁶ Also recently in the news, Brazil sank its end-of-life aircraft carrier during February 2023 rather than pay the funds necessary to remove the asbestos.⁷⁷ Clearly, the

⁷³ Buerk, 29.

⁷⁴ Ibid.

⁷⁵ Buerk, xix-xx.

⁷⁶ Steuer, Benjamin et al., “Role and potential of the circular economy in managing end-of-life ships in China,” *Elsevier Resources, Conservation & Recycling*, 164, 2021, 2. Accessed March 5, 2021.

<https://www.sciencedirect.com/science/article/pii/S0921344920303566>.

⁷⁷ Asbestos Disease Awareness Organization, “Asbestos-Filled Ship Sunk by Brazil Highlights Impossible Task of Asbestos Risk Management,” *Einpresswire*, February 7, 2023. Accessed on April 25, 2023.

shipbreaking industry as a profit center to the world shipping network, is incentivized by a sharp view on decreasing the costs as a component of increasing the profits earned by the global shipping system. Going “green” in terms of the environment risks loss of the business and jobs.⁷⁸ It is only the involvement of governments, such as the United States (for Navy vessels) and the European Union, prohibiting environmentally troubling vessel end-of-life beaching activities, that limit use of the countries in the Global South for ship recycling.⁷⁹ Should the costs in Bangladesh increase, then it risks losing the business to another low-cost producing country.

No Remedies Available to Shipbreaking Laborers in Bangladesh

The right to health care is a basic human right recognized by the Bangladesh Constitution based on the public health being a fundamental state policy.⁸⁰ Further, it is well known that asbestos can be a health hazard arising from vessels that are being recycled, including potentially causing cancer.⁸¹ And yet, the shipbreaking laborers have no effective protection or remedy under the Bangladesh legal system for their asbestos-related exposures and illnesses. Given the history, little optimism exists that Bangladesh will protect the laborers against asbestos-related diseases. As stated in 2006 by Professor Frey in his article titled “The International Traffic in Asbestos:”

<https://www.asbestosdiseaseawareness.org/newsroom/blogs/asbestos-filled-ship-sunk-by-brazil-highlights-impossible-task-of-asbestos-risk-management/>

⁷⁸ United Nations Environment Programme. “Costs estimated for upgrading ship recycling to environmentally friendly standards.” *Litchautz Maritime Environmental Consultancy*, 2013, 21-22.

⁷⁹ See the European Union Ship Recycling Regulation adopted in 2013 and the United States Environmental Protection Agency, Office of Enforcement and Compliance Assurance. *A Guide for Ship Scrappers: Tips for Regulatory Compliance*. EPA 315-8-00-001, Summer 2000, Section A-16.

⁸⁰ Md Jahedul Islam, “Occupational Safety and Health of the Shipbreaking Workers,” *SCLS Law Review*, Vol 3, No. 2, May 2020, 9. Accessed April 24, 2023.

https://www.researchgate.net/publication/349172606_Occupational_Safety_and_Health_of_Shipbreaking_Workers_ISSN_Online_2523-9236_ISSN_Print_2523-9228

⁸¹ *Ibid.*, 13.

Implementing strong regulations on the use of asbestos would help reduce the human health risks associated with the international trade. It is unlikely, however, that these recommendations (and those that might have a more dramatic effect on reducing health risks such as a ban on asbestos use) will be enacted in the near future, because powerful political and economic interests profit from the structure of the current asbestos trade.⁸²

As explained during 2019 by Professor Islam in the context of the most recent law passed to govern the shipbreaking industry:

At last in 2018, Bangladesh Ship Reprocessing Act has passed in the Parliament which has included some new provisions addressing workers' rights, occupational safety and health, injury compensation, minimum wage and working hours etc. ... Recent reports show that asbestos produced from ship breaking has become slow poison for workers. Different chemicals, explosives, rusts, crude oil etc. recklessly fall in the shore and heavily affect the coastline area. But these issues are not clearly stated in the Act. **As a result, there is no compensation for workers when they are gradually affected in occupational diseases. No additional compensation is given for these fatal consequences.** The conditions of death and serious injuries to get an amount of compensation are really tough for workers to prove in the court as well. [Emphasis Added]⁸³

Without any Bangladesh legal protection or compensation, the shipbreaking laborers will need to look outside of Bangladesh to seek compensation for the delayed damages associated with prolonged exposure to asbestos fibers.⁸⁴ This research paper will discuss alternative venues as they potentially involve bringing such a claim in the United States, including analyzing shipbreaking is an integral component of the world-system global shipping network.

⁸² Frey, *The International*, 178-179.

⁸³ Md Jahedul Islam, "Bangladesh Ship Reprocessing Act 2018: A Critical Overview." *SCLS Law Review*, Vol 2, No 2, May 2019, 26, 29. Accessed April 23, 2023. https://www.researchgate.net/publication/349172783_Bangladesh_Ship_Reprocessing_Act_2018_A_Critical_Overview ISSN Online 2523-9236 ISSN Print 2523-9228.

⁸⁴ The author does not imply that Bangladesh law is solo on this issue. Historically, even Global North countries did not necessarily provided Workers Compensation coverage to occupational illnesses such as asbestosis. See Rose, 2 in which the book discusses a asbestos factory in England partially owned by Franz Kafka in which employee Kershaw was faced with a denial both from the National Health Insurance Fund and Workers Compensation Health Insurance during the 1920s for her asbestos poisoning, causing Kafka to discuss how innocence and ignorance go hand in hand.

1. Shipbreaking is an Integral Component of the Global Transportation System Network

The global shipping system (or network) is the worldwide transportation of goods and people by maritime vessels.⁸⁵ Shipbreaking is a critical component within that system as it provides much of the cash flow for the fleet renewal.⁸⁶ As with all world-systems, it “is a global economic system in which goods and services are produced for profit and the process of capital accumulation must be continuous if the system is to survive.”⁸⁷ This includes direct or ancillary financial benefits to citizens around the world with a focus on those residing or working in the Global North who will profit the most. Until the 1970s, shipbreaking typically occurred within the Global North countries such as the United States. It was considered extremely hazardous and, as such, was heavily regulated by various laws in the United States.⁸⁸ As the process became more expensive, however, the owners began to send the vessels, if allowed, to third world countries. As stated by Roland Buerk in the context of the *Asian Tiger* shipbreaking during 2004:

The shipping industry relies on the willingness of nations like Bangladesh to handle its garbage – dangerous, dirty, and polluting as it is... Almost every product imaginable is transported by sea; the work on the beach is a vital part of the finances of the shipping industry, a fiercely competitive world. It has been estimated that breaking a ship on the coast of America would cost at least \$14 million. Now the vessels are sent to the Third World at the end of their useful lives, and shipping lines are able to sell them for cash. Old, outdated vessels that in previous years were viewed only as a liability are now an asset. It helps to keep down the shipping industry’s costs as well as, ultimately, the price of goods.

⁸⁵ Gregson, Nicky, “Performativity, Corporeality, and the Politics of Ship Disposal,” *Journal of Cultural Economy*, Vol. 4, No. 2, May 2011, 139-142, 149, 152. Accessed May 1, 2023. <https://www.tandfonline.com/doi/abs/10.1080/17530350.2011.563067>.

⁸⁶ N. M. Golam Zakaria, et al., “Underlying Problems, 91. https://www.researchgate.net/publication/272867928_Underlying_problems_of_ship_recycling_industries_in_Bangladesh_and_way_forward.

⁸⁷ Frey, “Breaking Ships, 25.

⁸⁸ United States Environmental Protection Agency, Office of Enforcement and Compliance Assurance. *A Guide for Ship Scrappers: Tips for Regulatory Compliance*. EPA 315-8-00-001 (Summer 2000).

Everything would cost us more if poor men were not willing to do this work for so little reward.⁸⁹

Importantly as to the shipbreaking in Bangladesh, given the employment, material recycling, and the conservation of foreign exchange, the country's economic system would risk self-destructing should shipbreaking activities be eliminated. As stated by Professor Frey after discussing shipbreaking in Bangladesh as part of the world-system, "[w]hat this paper brings into sharp focus is the ecological contradictions of globalization and the current world-system."⁹⁰ The issue comes down to Bangladesh needing the industry while being unable to protect, at the same time, the environment and health of the laborers.

The 70,000 direct laborers and 250,000 who are employed in ancillary activities in Bangladesh are a key component to this system.⁹¹ These individuals provide the low-cost labor to eliminate the obsolete vessels (cargo, passengers, and oil platforms) as they recycle more ships than any other location in the world. And yet, both Bangladesh and the rest of the world, other than the advocates on their behalf, treat them as disposable. Other individuals within the global shipping system who reside in more advanced countries fare significantly better. These individuals and their companies have various legal or safety protections in the those countries. These include as examples: ship owners, port workers, financiers, lessees, workers in fiscal headquarters, workers in legal headquarters, ship manufacturers, ship manufacturing yard owners, oil platform workers, ancillary transportation (such as rails), component manufactures and their workers (such as container handling cranes), shipbreakers in the United States and other Global North countries, tool suppliers, trade organization employees, local residents,

⁸⁹ Buerk, xi.. Also see Yahya, 408.

⁹⁰ Frey, "Breaking Ships, 41.

⁹¹ Islam, 26.

consumers, and others. Those people and companies who benefit from the global shipping system are dependent upon the shipbreaking workers in Bangladesh to ensure the system sustainability.

In summary, the Bangladesh shipbreaking laborers are at the bottom rung of every ladder, and from which many residents in the Global North benefit. With this in mind, shipbreaking laborers in Bangladesh should be considered part of the integrated global shipping system for purposes of certain shipbreaking laborers' rights and, accordingly, they should be able to enforce those rights in the Global North countries, such as the United States, when the citizens and companies of the Global North receive the benefits from the shipbreaking workers' labor.

2. Justice and Equality to Provide Remedy

Currently, the Bangladesh shipbreaking laborers put their health, their family's health, their friends' health, and their communities at risk for asbestos-related health problems, all for the benefit of the global shipping industry. As stated by Md Saiful Karim:

The shipbreaking industry in Bangladesh is a perfect example of *matsyanyaya*, where big fish can freely eat small fish. Shipping companies from developed countries and rich shipbreaking company owners from Bangladesh are profiting from this industry. The victims are the poor shipbreaking workers and the natural environment... This is an example of how local and foreign commercial entities work together to oppress and exploit the most marginalized segments of society. This industry is a stain on humanity...⁹²

Such an acceptance of risk should include an avenue to provide equity and justice to the shipbreaker laborers and those otherwise at risk. Since, as discussed earlier, no such remedy exists within Bangladesh, then the avenue for justice should originate within Global North countries that benefit from the global shipping industry. Companies based in the United States

⁹² Md Saiful Karim, *Shipbreaking in Developing Countries: A Requiem for Environmental Justice from the Perspective of Bangladesh*, (New York: Routledge, 2018), 125.

are particularly responsible given their involvement in all aspects, including decisions and collecting profits on the end-of-life decisions. As stated in 2020 by Keith Barker in “New data on end-of-life vessels reveals U.S. shipowners are among the worst dumpers worldwide,” American companies such as Diamond Offshore, Rowan Companies, Tidewater, and Transocean are significant “dumpers exploiting the environments and impoverished work force of South Asia,” quoting Jim Puckett of the Basel Action Network.⁹³ These companies use cash buyers as middlemen in order to disguise the sale of the vessels for breaking up on the beaches of places such as Bangladesh, going so far as misrepresenting the end-of-life location and risking criminal prosecution, as recently happened in Norway.⁹⁴ Barker claims that 469 large vessels were broken down in South Asia during 2019, approximately 90% of the gross tonnage dismantled globally.⁹⁵ In summary, individuals and their companies based in the United States profit from the system as an integrated whole and, accordingly, should not be able to separate from that system the responsibility for any essential component.⁹⁶

Concepts such as justice, legality, morality, ethics, and righteousness, must be grounded in objectivity rather than merely subjective feelings. Otherwise, those concepts are just in the eye of the beholder. As stated by Nobel Laureate in Economics Amartya Sen in his seminal book on the topic, aptly entitled *The Idea of Justice*:

⁹³ Keith Barker, “New data on end-of-life vessels reveals U.S. shipowners are among the worst dumpers worldwide,” *Recycling Product News*, February 4, 2020, 2. Accessed January 31, 2023. <https://www.recyclingproductnews.com/article/32942/new-data-on-end-of-life-vessels-reveals-us-shipowners-are-among-the-worst-dumpers-worldwide>

⁹⁴ Gulating Court of Appeal, “The Court of Appeal’s opinion of the matter,” Case No. 21-073085AST-GULA/AVD1, March 22, 2022. Accessed January 31, 2023. <https://shipbreakingplatform.org/wp-content/uploads/2022/10/Translated-judgement-from-the-Appeal-Court-in-the-Tide-Carrier-case.pdf>

⁹⁵ Barker, 1.

⁹⁶ For an analogous argument in the context of ship building, see the United States Supreme Court decision in *East River S.S. Corp., v. Transamerica Delaval Inc.*, 476 U.S. 858, 867 (1986) (“Since each turbine was supplied by Delaval as an integrated package, *see* App. 162-163, each is properly regarded as a single unit”).

What moves us, reasonably enough, is not the realization that the world falls short of being completely just – which few of us expect – but that there are clearly remediable injustices around us which we want to eliminate.

This is evident enough in our day-to-day life, with inequities or subjugations from which we may suffer and which we have good reason to resent, but it also applies to more widespread diagnoses of injustice in the wider world in which we live.⁹⁷

After Sen provides examples of manifest injustices opposed by notables such as the Parisians, Gandhi, and Martin Luther King, he notes that “they were not trying to achieve a perfectly just world ..., but they did want to remove clear injustices to the extent they could.”⁹⁸ This same argument supports the justice underlying using the United States, a country that substantially benefits from global shipping, to provide an avenue for certain asbestos-related health claims by the shipbreaking laborers in Bangladesh. As stated by Karim, “The shipbreaking industry is a clear example of this, where vessels that served the economy of the developed world go to developing countries for disposal. In fact, developed country ship owners sell their obsolete ships to developing country shipbreaking yards. Rather than internalizing the cost of disposal of wastes, they profit from them.”⁹⁹ Karim’s analysis is very much on point, focusing on the profits received from the Global North arising from the shipbreaking activity in Bangladesh.

Attempts at enacting international treaties have not worked. As stated by Jim Puckett of the Basel Action Network in 2006 during the International Maritime Organization’s meeting to develop shipbreaking international law; “[c]urrently about 95% of the world’s asbestos and PCB laden ships are scrapped by the world’s poorest, most unprotected, and desperate workforce ... That is immoral, and an affront to both human rights and the environment.”¹⁰⁰ It also violates

⁹⁷ Amartya Sen, *The Idea of Justice*, (London, Penguin Group, 2009), iv.

⁹⁸ *Ibid.*

⁹⁹ Karim, 16.

¹⁰⁰ Lisa Widawsky, “In my Backyard: How Enabling Hazardous Waste Trade to Developing Nations can improve the Basel Convention’s Ability to Achieve Environmental Justice,” *Environmental Law*, Spring 2008, Vol. 38, No. 2, Spring 2008, 577-625, footnote 8.

what has developed as “distributive” and “procedural” environmental justice.”¹⁰¹ As discussed by Lisa Widawsky:

Among the tools domestic environmental justice advocates have embraced to advance their cause are the precautionary principle and the polluter pays principle. The precautionary principle stresses that if an activity is likely to pose a threat to human health or the environment, even in the absence of conclusive scientific data, cost-effective measures should be taken to avert those threats. The polluter pays principle states that the polluter should have to bear the costs of the environmental harm it will cause by internalizing these costs rather than passing them on to those immediately affected or later generations.”¹⁰²

Widawsky recognized that, although these two principles generally were not central to policy-making decisions as of her 2008 article, they were gaining traction and “have played a more concrete and pervasive role in international agreements.”¹⁰³

Potential Jurisdiction in the United States

The United States provides for two ways to collect on asbestos liabilities from claimed tortfeasors: (1) litigation through the court system and, (2) claims against asbestos bankruptcy trusts. These systems are not mutually exclusive. With two overlapping systems, the decision on how to make claims and the choice of venue is extremely complex; as such, use of an attorney who is experienced with asbestos claims is essential for any potential claimant.

For jurisdiction to exist within the United States, a shipbreaking laborer in Bangladesh and the laborer’s counsel pursuing a claim arising from asbestos exposure will need to show two initial fundamental proofs: (1) the breach of a legal obligation by the parties being sued that gives rise to a cause of action on behalf of the shipbreaking laborer and (2) a factual nexus that supports jurisdiction in the court (including sufficient contacts with the proposed venue). Both of

¹⁰¹ Ibid., 583-584.

¹⁰² Ibid., 585.

¹⁰³ Ibid., 585.

these requirements can be complex and are very factually dependent. As an example, the shipbreaking laborer will need to identify the vessels on which the laborer worked, and counsel or others will need to investigate the involved manufacturers and providers of asbestos-containing components used on the vessel. Given this complexity, this paper will merely discuss the generalities for a jurisdictional analysis. This paper also will discuss the potential for payment for asbestos-related health issues by the asbestos bankruptcy trusts set up in the United States. This paper will not discuss, however, the potential to change the current laws as asbestos is the third rail of political rhetoric in the United States.

1. Legal Theories, Facts, and Potential Challenges that Underlie Jurisdiction

Lawsuits must be based on facts proving a breach of legal duties. For the shipbreaking industry, a number of potential laws and treaties may provide those legal duties as enforceable in courts based in the United States. Examples include the following:

Treaty or Other Legal Standards
Torts in the U.S. such as negligence and strict liability. Examples would include ships built in the United States which were scrapped in Bangladesh and substantially exposed the worker to asbestos fibers.
Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and Their Disposal (1989) (U.S. is a signatory but not a party as not ratified)
Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships (2009) (Not Entered into Force)
Bangladesh domestic laws regarding workplace safety and shipbreaking
United Nations Convention on the Laws of the Sea as applied to Flag State, Port State, and Coastal State Jurisdiction over end-of-life vessels
The Inter-Governmental Conference on the Convention of Dumping Wastes at Sea (London Convention) (1975)
The Stockholm Convention on Persistent Organic Pollutants
Nairobi International Convention on the Removal of Wrecks (2007)
The Convention on Control of Harmful Anti-Fouling Systems for Ships (2001)
International Convention for the Control and Management of Ship’s Ballast Water and Sediments (2004)
International Convention for the Prevention of Pollution from Ships (1973)

IMO Safety of Life at Sea Convention (ban on asbestos on ships built after July 1, 2002 with exceptions, July 1, 2011 without exceptions)
IMO Code for the Construction and Equipment of Mobile Offshore Drilling Unites (MODU) (2009) (Resolution MSC.282(86) adopting SOLAS II-1/3-5.2 prohibiting all installation of asbestos on ships after January 1, 2011, extended to prohibit new asbestos installation on existing units in 2023)
ISO 30006 (2010) addressing location of hazardous materials on vessels (match with a 2011Belgium standard)
ISO 30007 (2010) addressing steps to prevent asbestos emission and exposure during the ship recycling process (match with a 2011 Belgium standard)
European Union Ship Recycling Regulation, 2013
U.S. Regulations per EPA , A Guide for Ship Scrappers: Tips for Regulatory Compliance, Summer 2000.

Legal theories necessarily need to be supported by appropriate facts that potentially provide for jurisdiction over the claims to exist in the United States. The United States Supreme Court has issued a number of decisions that discuss the facts required to obtain jurisdiction in asbestos cases. As discussed in those cases, the jurisdiction may be obtained as (1) general personal jurisdiction (residence or location of corporate offices) or (2) specific personal jurisdiction (claim arises with sufficient ties to that venue). Under either theory, due process requires that a defendant have sufficient minimum contacts with the forum to comply with traditional notions of fair play and substantial justice.¹⁰⁴ The rules for jurisdiction are sufficiently complex to require an attorney to successfully navigate their application in any given case.

Presuming the acceptance of the world-system theory in terms of shipbreaking as integral to the other aspects of the global shipping network, then the following are examples of facts that may help to support jurisdiction in a court system based in the United States:

¹⁰⁴ *Daimler AG v. Bauman*, 134 S. Ct. 746, 754 (2014) (quoting *Goodyear*, 564 U.S. at 923). See also, *BNSF Railway Co.*, 137 S. Ct. at 1552 92017) and *Bristol-Myers Squibb Co. v. Superior Court of California, San Francisco Cnty.*, 137 S. Ct. 1773, 1780 (2017).

Applicable Facts
Ship manufactured in the United States
Ship owned by United States-based company
Ship operating in the United States territorial waters
Ship sold for end-of-life by United States company
Ship flagged in the United States
Ship financed in the United States
Ship leased in the United States
Ship engineering or design plans from the United States
Ship involved in contracts governed by the laws of the United States, one of its states, or one of its territories
Vessel operated as an oil platform in United States territorial waters
Asbestos fibers within the Bangladesh environment that originated on ships with a United States nexus, for which the shipbreaking or downstream processes liberated the fibers which remain in the area
Other facts that show a nexus by the party being sued to the court

Such factors under the integrated system rationale adopted by the United States Supreme Court in East River S.S. Corp., and that seems applicable to a jurisdictional analysis, would expand the potential facts supporting jurisdiction. These facts are important both to find jurisdiction within the United States and to determine the correct venue for that jurisdiction, including federal district courts, state courts, or other applicable court systems.

Most importantly, extra-territorial issues related to asbestos exposure involving the United States are not novel to Bangladesh. In addition to shipbreaking activity in other Global South countries, over 80 Spanish Navy sailors have died from asbestos exposures which began with the United States providing Spain with asbestos laden ships in 1953.¹⁰⁵ Further, cases are now being filed by United Kingdom residents suing in the United States court system, asserting

¹⁰⁵ McMurtry, Alyssa, “Asbestos killed 82 members of Spanish navy in last 20 years: Report,” *Health Europe*. April 5, 2023. <https://www.aa.com.tr/en/europe/asbestos-killed-82-members-of-spanish-navy-in-last-20-years-report/2864392>

claims for asbestos exposure from asbestos-contaminated talc.¹⁰⁶ As such, precedent exists for pursuing claims of overseas asbestos exposure in the United States court system when a sufficient factual nexus is found to the United States.

2. Asbestos Bankruptcy Trusts

Although some of the asbestos bankruptcy trusts located in the United States have paid for Rest-of-the-World (ROW) claims, the trusts make it difficult to qualify and collect. This section will discuss the history and purpose of those trusts, and then touch on the history of claims paid for exposures occurring outside of the United States.

Because of the overwhelming number of asbestos manufacturing firms filing for bankruptcy protection, collection from the asbestos bankruptcy trusts arranged and approved within those bankruptcies in the United States has become a significant source of additive revenue to asbestos claimants. These claims are in addition to the lawsuits filed in the court system. The Rand Corporation Monograph Series addressed these trusts in its 2010 monograph entitled “Asbestos Bankruptcy Trusts and Tort Compensation,” explaining them as follows:

Over the past ten years, payments by asbestos bankruptcy trusts have played an increasingly important role in compensating asbestos injuries and have become a matter of contention between plaintiff and defense attorneys. At issue is how tort cases take into consideration compensation paid by trusts and the evidence submitted in trust claim forms. This monograph examines how such evidence and compensation are addressed by state laws and taken into consideration during court proceedings. It also examines how the establishment of the trusts potentially affects total plaintiff compensation, payments by defendants that remain solvent, and the compensation available to future, as compared to current, plaintiffs.¹⁰⁷

¹⁰⁶ Tim Povtak, “UK Citizens Filing Asbestos Talc Claims in U.S. Courts,” *Asbestos.com*. n.d. <https://www.asbestos.com/news/2023/01/03/uk-asbestos-cases-us-courts/>.

¹⁰⁷ Lloyd Dixon and Geoffrey McGovern, “Asbestos Bankruptcy Trusts: An Overview of Trust Structure and Activity with Detailed Reports on the Largest Trusts.” *Rand Institute for Civil Justice*, 2010, iii. Accessed January 31, 2023. <https://www.rand.org/pubs/monographs/MG1104.html>.

As can be discerned from this monograph, recoveries under the trusts can be complex, with each of the trusts having differing requirements.

In 1986, Johns-Manville was the first asbestos bankruptcy trust established, including \$2.5 billion in assets. Until 2007, the Manville Trust published their payments for ROW claims.

As stated by Attorney Kirk Hartley in his March 5, 2009 blog:

Fact Research Effort: For the upcoming panel presentation on global asbestos claiming, I went looking for 2008 data regarding “foreign” claims submitted to the Manville Trust by persons who lived and worked outside North America. It seemed that obtaining the data probably would be simple because the Manville Trust foreign claiming data was easy enough to find in the past. Indeed, my files include copies of previously public Manville Trust foreign claims data for 2006 and 2007. Some of the data were presented at prior asbestos seminars, and other data were available through the Trust’s website by using its online links to semi-annual reports submitted to the Court with continuing jurisdiction over the trust. The data indicate that 2007 Manville Trust payments on foreign claims were well over \$ 8 million.¹⁰⁸

As of 2022, approximately 60 active trusts exist, collectively holding \$30 billion in assets used to pay claims.¹⁰⁹ Each of these trusts are unique in terms of the information required for recovery.

Although the trusts do not generally discuss payments to overseas laborers for ROW claims, including Manville since 2008, certainly some payments have occurred.¹¹⁰ The ability to obtain access to these asbestos bankruptcy trusts for ROW claims may be critical to receiving meaningful recoveries in the United States; however, if a trust did not include reserves for overseas claimants in its analysis, the question exists as to whether a claim should be made to the

¹⁰⁸ Kirk Hartley, “Manville Asbestos Trust Reducing Transparency on its Asbestos Claims Data,” *Global Tort: The Intersection Among Torts, Science, Corporate Law, Insurance & Bankruptcy*, March 5, 2009. Accessed April 10, 2023. <https://www.globaltort.com/post/manville-asbestos-trust-reducing-transparency-on-its-asbestos-claims-data>.

¹⁰⁹ Crowell & Moring LLP, “Chart 3: Company Name, Case No, Court, Plan Status & Published Decisions,” 2021. Accessed April 12, 2023. <https://www.crowell.com/files/20210129-Asbestos-Bankruptcy-Debtors-plan-status-citations-published-decisions.pdf>.

¹¹⁰ Mavis Nye of the U.K. who’s exposure was from her husband in the U.K. shipyards received compensation during 2011 from the Eagle Picher Trust. Emails from Mavis Nye dated April 13, 2023. Original possessed by author.

trust versus any surviving legal entity otherwise liable. This area will likely be complex and require the services of devoted and experienced counsel. Finding such counsel should be relatively easy for a mesothelioma cancer claim with the correct facts given that it is a target disease for asbestos exposure and provides higher recoveries from the bankruptcy trusts. Obtaining a recovery for either an asbestosis or lung cancer claim, however, will likely be difficult given the economics of bringing such suits, the limiting language contained in the trust payment documents, and the demanding work required by counsel.

Conclusion

Shipbreaking, as undertaken in Bangladesh, is a dangerous occupation. This research paper focuses on the plight of shipbreaking laborers in Bangladesh arising from one of those dangers; the diseases caused by occupational exposure to asbestos fibers. By combining a world-system analysis with the normalization of deviance concept, this paper analyzes why the shipbreaking laborers are at a significant elevated risk of long term asbestos-related illnesses and, yet, they do not undertake adequate precautions and have no protection or remedy under Bangladesh law for the asbestos exposure and resulting health hazards. This paper continues by using a world-systems approach to discuss the objective nature of justice and equity as applicable to shipbreaking laborers working in the Global South, with a particular focus on Bangladesh and its role as an integral component to the global shipping system (network) that includes ship building, transportation of goods and people, and end-of-life vessel disposal. This paper then shows that countries within the Global North, such as the United States, obtain the majority of benefits from this integrated system to the disadvantage of the workers such as the shipbreaking laborers in Bangladesh.

In conclusion, based on justice, equity, and the analysis discussed above, jurisdiction in the United States-based court system should exist for those Bangladesh shipbreakers who are able to provide a sufficient minimum factual nexus to the United States for their injuries and the vessels and asbestos suppliers. The potential causes of action and supporting facts for any particular case requires the assistance of an attorney based in the United States who is familiar with asbestos litigation. As an alternative, or in combination with a court claim, the Bangladesh shipbreaking laborers may assert a right to recover from the asbestos bankruptcy trusts set up in the United States. Those trusts are similarly complicated both legally and factually.

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