The Origin and Evaluation of Ship Breaking Regime of South Asia: A Critical Perspective From Bangladesh

Ishtiaque Ahmed¹
Chair, Department of Law, North South University Bangladesh

Abstract: The Hong Kong Convention was adopted in 2009 to regulate the global industry of ship recycling, but the convention remains unenforced due to the problem of ratification by the leading ship recycling states. Due to the lopsided track record of shipbreaking in the last forty years, the ratification currently depends primarily on the policy choices of few developing nations. Given the gross unpreparedness and oversight of Pakistan towards the treaty’s timely accession with India’s recent ratification, and the ban of China on the import of hazardous waste, the responsibility lies with the policymakers of Bangladesh to decide the fate of this influential global pact. This article attempts to track down the origin and evolution of ship recycling regime of Bangladesh, followed by a critical analysis of the salient provisions of the framework ship recycling regulations of this chief ship recycling state as adopted recently. It postulates that the drawbacks figured out may create significant obstruction or procrastination to accede to the convention by Bangladesh thereby endowing an inclusive and sustainable global ship recycling industry any time soon. The article ends with recommendations to the government of Bangladesh for necessary amendments in its framework regulations on ship recycling identified in this research.

Keywords: Ship-breaking, Ship Recycling, Hong Kong Convention, End of Life Ships, Ship Breaking and Ship Recycling Rule.

¹Corresponding author: ishtiaque.ahmed@northsouth.edu.
I. Introduction

A ship is the largest human-made moving object on the planet. About 90% of world trade is carried by international shipping industry. Ship-breaking or ship recycling, although is not a part of maritime navigation, is an essential part of maritime industry. Ship recycling is a process of dismantling End of Life (EOL) vessels after their useful lives are over. After about 25-30 years of continuous service, a ship becomes unseaworthy, dangerous for navigation & life at sea. When a ship’s maintenance cost outweighs its income, the vessel outlives its utility; it is then sent for scrapping as a matter of practical necessity. Around the world, annually, almost 1800 sea-going ships over 500 GT become obsolete. Several other modes of disposal of EOL ships are available globally but ship recycling remains the most sensible option, and currently

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3www.ics-shipping.org/shipping-facts/
6Id.
8Gross tonnage (GT) is a nonlinear measure of a ship’s overall internal volume.
there is no other feasible alternative.\textsuperscript{10} Ship-breaking is considered as the most dangerous occupation in the world and is known as a pollution heavy industry.\textsuperscript{11} The heaviness of environmental pollution and the casualties involved in ship-breaking are hardly comparable with other hazardous industries known in current time.\textsuperscript{12} Sound management in ship breaking with optimum regard to the safety of life and environment raises critical question of economic viability of this very industrial activity.\textsuperscript{13}


\textsuperscript{12} Interview with Md. Ali Shahin, Coordinator, YPSA and Bangladesh Representative of NGO Ship Breaking platform, Chittagong (Aug. 5, 2016) [hereinafter Ali Shahin Interview].

II. Ship Breaking Industry and South Asia

The international industry of ship breaking was a highly mechanized industry until it piled up in South Asian beaches in 1980s. Beginning from the mid-1980s, the southern region and peninsula of Asia has turned into the global epicenter of ocean-going ship recycling. Over 80 percent of obsolete vessels from around the world, since the 1980s, have been sent only to three countries of South Asia namely Bangladesh, India and Pakistan. The availability of cheap labor, geographical advantage, favorable weather conditions, and huge demand of scrap metals in the growing construction industries, as well as lack of enforcement of workers’ rights, environmental and coastal laws are believed to be the predominant reasons for its progressive transition to these nations of poorer economy.

Bangladesh, a newly developing country, has emerged as the market leader in ocean going ship recycling, transforming the highest amount of

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17Id.


19Bangladesh, a Least Developed Country (LDC), recently has fulfilled the eligibility criteria of the United Nations to be recognized as a developing country. Bangladesh will now be eligible able to apply to the UN to be recognized as a developing country. It is expected that formal transition will take place by 2024. See Sairas Rahman, Bangladesh on path to be recognized as a developing country, Dhaka Tribune (Mar. 17, 2018), www.dhakatribune.com/bangladesh/2018/03/17/bangladesh-path-recognized-developing-country/.
recyclable tonnage from EOL vessels, both in LDT measurement and in terms of number of ships dismantled annually. In 2019, Bangladesh met almost half of the global demand for decommissioning obsolete vessels. Notably, the predominant ship dismantling practice that occurs in Bangladesh and its neighbouring competitors, India and Pakistan, is known as ‘beach breaking’ or ‘beaching’.

Beaching is considered the most treacherous, but the least expensive, method of recycling currently available worldwide. In this method, ships are run full steam ahead during high tide towards the sea shore until the vessel is finally grounded on the mud flat on the beach. The ship is then gradually winched forward up the beach, bit by bit in semidiurnal tidal water. Workers get on board the ship to begin dismantling operations using mainly traditional tools and techniques. Ship breaking on the beach of the Southern peninsula of Asia is a controversial activity, where human casualty and irreversible degradation of marine environment have been an alarming phenomenon. Almost 700 lives have been lost and 10,000 workers have suffered from permanent disability only in Bangladesh in last three decades. In South Asia, the average rate of accident and death in the beach breaking sites have remained unchanged.

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22Id.
24Id.
since last several decades. According to United Nation Environment Program (UNEP), shipbreaking activities remain the largest land source marine pollution in South Asia. Unilateral regulations to control the industry have been ineffective, given the industry’s global character with the large number of actors involved internationally. According to many, there has been an urgent necessity to forge a global regime to jointly control all aspects of the industry.

III. Regulating Global Ship Breaking Industry

After three decades of anarchy and lawlessness in global ship recycling activity, the Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ship 2009 shortly, the Hong Kong Convention (HKC) was adopted under the auspicious International Maritime organization (IMO) but the convention has failed to see the light of success because of the difficulty in fulfilling its three stage entry into force criteria.

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31. Puthucherril, supra note 3, at 52.
As per the entry into force criteria of this global treaty, ratification by both ship owning and ship recycling states having certain track record of history of ship recycling ten years preceding the date of accession is essential. For the last several decades, the industrially developed countries which mostly belong to the ship owning nations were hardly associated with EOL ship recycling. Most leading ship recycling states, representing the developing nations, have negligible number of merchant fleets registered in their registries. Due to this lopsided track record in the history of shipbreaking, the success of this convention now depends primarily on the policy choices of these South Asian ship recycling nations. The position does not change even if the whole world ratifies the convention, including China, the fourth largest ship recycling state in the

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33 The top ten ship owning nations currently, in terms of hierarchy, belongs to Japan, Greece, China, Singapore, Norway, South Korea, USA, Germany, UK and Denmark see https://safety4sea.com/top-10-shipowning-nations/ On the other hand four main ship recycling countries (Bangladesh, India, Pakistan and Turkey) currently recycling almost 96 percent of all tonnage with China and rest of the world’s share is simply nugatory. See www.maritime-executive.com/editorials/developments-in-ship-recycling-in-2019
34 HKC Art. 17
world.\textsuperscript{38} In other words, the ratification by the whole world has little meaning to this convention unless any two of these four giant ship recycling states, namely Bangladesh, India, Pakistan and China accede to the convention.\textsuperscript{39} However after India’s recent accession to the HKC in December 2019, the fate of the convention is now clearly depends on the policy choices of one of the remaining three leading ship recycling states. However, a closer look reveals that pursuant to the legal and recent political position of China, the ratification of the convention is extremely unlikely, given the recent ban on importing foreign EOL ships for recycling in China\textsuperscript{40} By taking this move, China to a great extent has denied the transcontinental character of this convention. As per the HKC, a member state is also not allowed to discriminate between party and non-party ships in their treatment on recycling of ships.\textsuperscript{41} Predictably on ratification of the convention, how China would address the issue of discrimination between party states remains questionable.\textsuperscript{42} Furthermore, China belongs to the top five ship owning states.\textsuperscript{43} The ratification by

\textsuperscript{38}In last three decades five countries of the world have recycled 98\% ships worldwide. The recycling capacities of China plus Turkey plus the rest of the world (but excluding the three South Asian countries) does not fulfill the third entry into force condition. On the other hand, the combined capacities of China plus any one out of the three South Asian ship recycling countries meet the requirement of the third condition see India Prepares to Ratify the Hong Kong Convention, The Maritime Executive (Dec. 2, 2017), www.maritime-executive.com/article/india-prepares-to-ratify-the-hong-kong-convention#gs.rdVU5cI (last visited May. 14, 2020). For ship recycling record in last four decades See www.imo.org/en/KnowledgeCentre/PapersAndArticlesByIMOStaff/Documents/SHIPREC\%202013\%20-%20International\%20Conference\%20on\%20Ship\%20Recycling.pdf , (last visited May 14, 2020).

\textsuperscript{39}Id.


\textsuperscript{41}HKC art. 3.4.


China will likely add another 8.8 percent of the world’s fleet.\textsuperscript{44} This would satisfy the second entry into force criteria of the HKC\textsuperscript{45} but make the fulfillment of the third entry condition more onerous than what it exists currently.\textsuperscript{46} For the same reason, Liberia and Marshall Islands, the second and third largest ship owning states\textsuperscript{47} have already been advised by the IMO not to accede to the HKC unless China, Bangladesh or Pakistan ratifies the convention first.\textsuperscript{48} Given the latest position of China, it is extremely unlikely for this state to accede to the convention any time soon.

It is noted that non-ratification by China seems hardly influence the global business of ship recycling. Shipping owners in China receive a significant subsidy from their government for choosing their ships to be recycled in China.\textsuperscript{49} Almost all Chinese ships are now being recycled in China only, as a result.\textsuperscript{50} China belongs to one of the largest shipping nations in the world and as per the report of UNCTAD, the Republic of Korea, Japan and China built 91.8\% of world gross tonnage in the year

\begin{flushright}
\textsuperscript{45}Id.
\textsuperscript{46}Id. at 7.
\textsuperscript{48}Mikelis, supra note 31, at 11.
\textsuperscript{50}According to Dr. Mikelis, Former head of ship recycling division at IMO, and currently the non-executive director of GMS cash buyer, a significant amount of subsidy is paid to a Chinese shipowner who recycles a Chinese flagged ship in a Chinese recycling yard. The level of the subsidy has reached to an astounding figure which is around $400 to $440 per LDT. This amount is more than the best price paid by yard owners in Bangladesh, India, or Pakistan. Moreover, on top of this subsidy, the shipowners are also paid a sum of around $200 per LDT from the yard. According to Mikelis, these incidents have made the Chinese ship owners crazy to recycling their ship only in China see W Laursen, ‘Chinese Subsidies Spark Shipbreaking Debate,’ \textit{The Maritime Executive}, 12 April 2015, Available from, https://maritime-executive.com/article/chinese-subsidies-spark-shipbreaking-debate#gs.ZVkmHNM > (accessed 4 March 2018).
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According to the third entry into force criteria of the HKC, the combined maximum for annual ship recycling volume of the states, 10 years preceding to the date of ratification, must constitute not less than three percent of the combined merchant shipping tonnages of the same State.\(^{59}\) After India’s ratification of the convention in December 2019, the current figure reflects 2.6%.\(^{60}\) Based on the historical records of ship recycling in the last 40 years globally, it is evident that the ball remains now in the court of Bangladesh, who retains the key to the enforcement leading towards the success of this treaty.\(^{61}\) It should be mentioned here that the scope of this article is not to go into the details of the provisions of the HKC but to attempt, from a doctrinal perspective, to focus on the evaluation and critical analysis of the framework regulations on ship recycling of Bangladesh. Bangladesh is currently the largest and the most dominant ship recycling state currently in the world. Attempt will be made to evaluate, in general, the state’s appositeness to accede to the global treaty on ship recycling at its current predicament of legislations.

**Iv. Ship Breaking in Bangladesh**

Traditionally the largest section of the global shipping industry counts on Bangladesh for disposal of their obsolete vessels from international waters.\(^{62}\) Bangladesh recently has designed its domestic framework regulation on ship recycling taking note of the HKC.\(^{63}\) These include Ship Breaking and Ship Recycling Rule 2011 (Hereinafter referred as the SBRR 2011) and Hazardous Waste and Ship Breaking Hazardous Waste

\(^{59}\)HKC art. 17.


Management Rule 2011 (Hereinafter referred as the HWR 2011). In 2018, Bangladesh adopted Ship Recycling Act (SRA 2018) that mostly deals with allocation of ship recycling zones, constitution and operation of the regulatory board named Bangladesh Ship Recycling Board (BSRB)\(^{64}\) dedicated to administering the ship breaking industry in Bangladesh and a number of penal provisions.\(^{65}\) Importantly the 2018 Act has created a statutory obligation for Bangladesh to develop legal and technical capacity to conform to the provisions of the HKC within five years of the date of commencement of this Act, in other words by February 2023.\(^{66}\)

Arguably, the ship recycling framework regulations of this country appear to have attained a transnational character in the true sense of the term.\(^{67}\) For the next decade or so, the legal and political position of Bangladesh may potentially decide the fate of this influential global pact. The domestic ship recycling legislations of Bangladesh guide most of the global shipping companies around the world as they prefer to recycle their ships in Bangladeshi yards. For better understanding of the topic, this article will attempt to plunge into a brief history and an evolution of the ship recycling regime of this crowning ship recycling state.

V. Evolution of Ship Recycling Regime in Bangladesh

Ship-breaking began in Bangladesh in much inorganized fashion. Two separate incidents are believed to the framer of confidence in businessmen which ultimately gave birth to this country as the epicenter of global ship recycling industry.\(^{68}\) In 1965 a Greek ship, M. V Alpin stranded in the Bay of Bengal, was successfully dismantled by the ‘Chittagong Steel Mill’\(^{69}\) with the help of local inhabitants and its workers using mostly traditional tools and techniques.\(^{70}\) Subsequently a Pakistani ship, “Al Abbas” damaged by bombing during the liberation war in 1971, was salvaged on the beach of Chittagong, Bangladesh and successfully disman-

\(^{64}\)Bangladesh Ship Recycling Act, 2018 § 4
\(^{65}\)Bangladesh Ship Recycling Act, 2018 § 7.2.
\(^{66}\)Bangladesh Ship Recycling Act, 2018 § Chapter VII.
\(^{67}\)Transnational law includes law that regulates actions or events that transcend national frontiers includes domestic laws. See Chapter Ii A Basic Introduction to Transnational Law, 63, www.law.berkeley.edu/php-programs/courses/fileDL.php?fID=7587.
\(^{69}\)Id.
\(^{70}\)Id.
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tled entirely manually in 1974 by the workers of ‘Karnafully Metal Works.’

Beginning in the early 1980s, the business of ship recycling in Bangladesh progressed smoothly and profitably, thanks to cheap labor and minimum infrastructure, despite pressure mounted steadily by the environmental, labor and human rights activists resisting progress of this questionable activity on the pristine beach of this relatively small country. In 2008, the protestation culminated in the seminal case, "MT Enterprise", filed by Bangladesh Environmental Lawyers Association (BELA) in the Supreme Court of Bangladesh, against the Government’s decision to allow the import of a tanker named ‘MT Enterprise’ for dismantling.

Since the beginning, the ship-breaking was steered by the Department of Shipping (DoS) who had limited or no experience in labor management or environmental issues. The Supreme Court unearthed measurable failure of the government to comply with rules on environmental clearances including directions made earlier by the Supreme Court to frame rules governing hazardous activities and industries in Bangladesh. In 2009, the Court, acting Suo moto, issued nine specific directives upon the government, including instant closure of all ship breaking yards operating without clearance from the Department of Environment (DoE), which ultimately affected all the facilities, as none of them had been operating with valid environmental clearances. Despite

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73 Bangladesh Supreme Court has two divisions, High Court Division and Appellate Division, of which the latter is the Apex Court of the country.

74 It was a Public Interest Litigation (PIL) under art. 102 (2) (a) (i) and (ii) of the Constitution of the People’s Republic of Bangladesh. In the Writ Petition No. 7260 of 2008 Bangladesh Environmental Lawyers Association (BELA). 17 March 2009

75 Interview with Captain K.M Jashim Uddin Sarker, Master Mariner (Class-1 UK), Chief Nautical Surveyor, Department of Shipping, Govt. of Bangladesh, Dhaka (July 25, 2016). Interview with Md. Alamgir Khan, Director, Department of Shipping, Govt. of Bangladesh, Dhaka (July 25, 2016).

76 Writ Petition No. 7260 of 2008 *supra* note 57.

77 *Id.* at 15.

78 *Id.* at 18.
the year-long passing of judgment on 17 March 2009 by the highest court of the country, the government among other respondents failed to comply with any of the directives of the court, including the framing of rules.\textsuperscript{79} The condition of the recycling yards remained unchanged.\textsuperscript{80} Time petitions were filed by the government on several occasions on many insubstantial grounds.\textsuperscript{81} More shockingly, ships were still being imported in clear violation of injunction against import, triggering several other contempt proceedings against violators and all of which remained pending.\textsuperscript{82}

It is noted that Bangladesh is one of the poorest and most densely populated countries in the world. Poverty is widespread, affecting almost 50 percent of the population.\textsuperscript{83} Eventually, the reality of this poor\textsuperscript{84} labor surplus country\textsuperscript{85} was addressed before the court. The emblematic social, economic, national, and international politics hindward the industry took precedence. The voice of the court subdued in a subsequent petition moved by the respondents. The government argued that no goal can be achieved overnight, and if the ban is not lifted immediately, an economic disaster is inevitable.\textsuperscript{86} The petitioner was able to convince the court that not only members of the owners association were in financially impacted and otherwise, but also the masses had been affected because of the ban on the import of EOL ships.\textsuperscript{87} They averred that the prohibition had placed tremendous pressure on the job market, causing significant reduction of supply of raw materials to specific industries and increased prices of many common and essential items.\textsuperscript{88} The court disposed of the rule,

\textsuperscript{79}\textit{Id.} at 21.
\textsuperscript{80}The court observed in its order dated Feb. 8, 2010 that approximately 350 other vessels have been imported and brought into Bangladesh for breaking and the number of authorized ship breaking facility increased from 36 to 68 in just 12 months. But the Government failed to provide precise information if they have been issued with any environmental clearance certificate as required by the HC in earlier directives. Meanwhile, in just one year, 24 persons have met their death at the shipbreaking yards with numerous permanent injuries.
\textsuperscript{81}Interview with Advocate Rizwana Hasan, Chief Executive Officer, Bangladesh Environmental Lawyers Association, Dhaka, Bangladesh (Aug. 5, 2016).
\textsuperscript{82}\textit{Id.}
\textsuperscript{84}www.newagebd.net/article/57482/poverty-behind-much-of-child-labour
\textsuperscript{85}https://bea-bd.org/site/images/pdf/010.pdf
\textsuperscript{86}Bangladesh Environmental Lawyers Association v. Government of Bangladesh, Writ Petition (Civil) No. 7260/2008 (Order of the Supreme Court dated 7 March 2011)
\textsuperscript{87}\textit{Ibid}
\textsuperscript{88}\textit{Ibid}
lifting the ban on the import of EOL ships pending the adoption and enforcement of the rule subject to 18 revised and specific directions upon the ship recyclers and the government.\textsuperscript{89} This decision effectively withdrew the previous requirement of decontamination of EOL ships before they are imported to Bangladesh territory. Importantly the later directive of the Supreme Court was a significant move from the rigor of the earlier one. According to this new directive except tankers, no ship is required to be certified gas free until driven onto the beach for recycling.\textsuperscript{90} This action was adequately covered in the earlier directive number eight, where pre-cleaning of ships at the source was mandatory.\textsuperscript{91} The pre-cleaning includes complete removal of oily waste from all ship’s tank, bilge water tanks, lube oil tanks, engine room, ballast tanks, paints in the hull, and all other loose hazardous materials including the complete removal of all hazardous materials that remain as part of the ships inbuilt structure.\textsuperscript{92}

The Ministry of Environment and Forestry (MoEF) was directed for the second time to frame rules governing hazardous waste industry in Bangladesh in line with the Environment Conservation Act 1995, Factory Act 1965, Labor Act 2006, Basel Convention 1989, Hong Kong Convention 2009, Basel Technical guidelines and ILO guidelines of Ship Recycling within three months of the judgment being served upon them.\textsuperscript{93} During the pendency of the suit, the Government declared ship breaking as a formal industry, amended the rules of business and the Ministry of Industry (MoI) was charged with entire responsibility for regulating ship-breaking in Bangladesh.\textsuperscript{94}

Accordingly, on 14 December 2011, the government submitted before the Supreme Court, a tailor-made domestic regulation on ship recycling titled ‘Ship Breaking & Recycling Rule 2011’ (SBRR 2011) after a gazette notification on 12 December 2011. This instrument was the first ever tailor-made framework regulation adopted by a country that relies solely on beaching method of recycling of ships. A further regulation titled ‘Hazardous Waste and Ship Breaking Hazardous Waste Manage-

\textsuperscript{89}Id. See also Staff Reporter, Court decision allowed the industry to restart the import of scrap vessels, Safety4Sea (June 14, 2011), https://safety4sea.com/bangladesh-ship-breakers-back-in-business-after-the-easing-of-strict-environmen/\#.
\textsuperscript{90}Judgment of March 7, 2011 supra note 69.
\textsuperscript{91}Judgment of March 17, 2009 supra note 57.
\textsuperscript{92}Seminar on Ship Breaking and Ship Recycling in Bangladesh and Compliance with International Regulations Tuesday, 17 January 2012, BUET https://name.buet.ac.bd/ShipBreakingandRecyclingSeminar17012012.pdf
\textsuperscript{93}Id. at 21.
\textsuperscript{94}https://moind.gov.bd/site/page/9d79706a-cff4-4d70-9966-547b7697cc3d/Allocation-of-Business
ment Rule 2011’ (Herein after referred to as the HWR 2011) was also adopted by the DoE under the power granted by the ECA 1995. This regulation implemented the Basel Convention in ship-breaking industry and other industries in Bangladesh dealing with hazardous wastes. In 2018, Ship Recycling Act (SRA 2018) was adopted by the Ministry of Industry to provide additional legal basis for the framework legislations already adopted in pursuant to the order of the High Court and to allow the government to develop additional rules or amend the existing rules for the management, development, and advancement of the Ship-breaking Industry in Bangladesh.

Vi. The Shipbreaking and Recycling Rule 2011 (Sbrr 2011):

The Definition of Ship
In SBRR 2011, the term ‘ship’ has been very widely defined and includes

Vessels and floating structures of any type operated in the marine environment and shall include submersibles, floating structures, floating platform, self-elevating platforms, floating storage unit, floating production storage unit and off-loading units, a vessel stripped of equipment or being towed; destined for breaking purposes.

The above suggests that the rule did not exclude even a small-scaled riverboat that may operate in an inland marine environment. The definition of ‘ship’ does not also prohibit inland water vessels, coastal ships, government ships or warships of any type, capacity or size.

Arrival of EOL Ships in Bangladesh:
The SBRR 2011 requires both the EOL ships and the ship recycling facility (SRF) owners separately to notify the competent authority (CA) about their intention to recycle a ship before its arrival at the state territory in due time. EOL ships are frequently arrested both at the point of exit from the exporting states or when entering the ship recycling states due to the application of UN Basel Convention worldwide or the European Waste

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95HWR 2011 Rule 17.
96SBBR 2011. at § 2 (vii).
Shipbreaking Regulation (EUSRR)\textsuperscript{97} in EU ports.\textsuperscript{98} Any arrest of an EOL ship at an anchorage of the recycling state or a stay order of the court either before or after it is taken to the facility leads to an obvious negative financial consequences for ship recyclers.\textsuperscript{99} Ship recyclers mostly rely on bank loans with high rate of interest to import ships for breaking.\textsuperscript{100} It costs in average BDT 175 crore (equivalent to 21 million USD) approximately to buy a scrap ship.\textsuperscript{101} Generally, ship recyclers must pay bank interest at the rate of 15\% to 16\% per annum.\textsuperscript{102} To an importer this creates an indebtedness to bank by BDT 4,000 per day per crore totaling seven lacs per day (equivalent to USD 8,300 approximately) only.\textsuperscript{103} The financial stake for an unnecessary delay even for a single day is therefore exceedingly high. The overhead cost of a ship waiting at the anchorage for beaching is also considerable.\textsuperscript{104} These matters prompt them to rush into action and complete the beaching and cutting formalities as quickly as possible. Pursuit of EOL ships proceeding to the recycling states, by the anti-beaching campaigners both at home and abroad has never been absent.\textsuperscript{105} The more the recyclers, in the circumstances can delay this notification of arrival, the more they can reduce the chance of adverse media coverage to which they are regularly exposed. An unflagging tug of war between yard owners and green activists in all three South Asian shipbreaking nations is noticeable. An undercover operation therefore provides a practical benefit to the recyclers in the circumstance.

\textsuperscript{97}EUSRR implemented Basel Convention in the EU
\textsuperscript{99}Interview with MA Hashem, Director, Mother Steel Limited, at Chittagong, Bangladesh (Aug. 10–15, 2016); Interview with Monjur Morshed, Owner, OWW Trading and Ship Breaking, at Chittagong, Bangladesh (Aug. 10–15, 2016).
\textsuperscript{101}Shohag Kumar Biswash, \textit{SA TV News at 10.30 pm} (Apr. 3, 2020).
\textsuperscript{102}Ahmed, \textit{supra} note 82.
\textsuperscript{103}Kumar Biswash, \textit{supra} note 83.
\textsuperscript{105}Id at 424.
To avoid the vagaries of local market, the cash buyers and the yard owners prefer to consume time by notifying the Competent Authority just a few hours before the next available beaching tide to rise. A beaching tide is a contingent event mostly depends on natural phenomena and does not occur every day in every week. These circumstances inevitably place acute time pressure even upon the inspection team of the regulatory agency that eventually leads to a cursory or no inspections being done. There seems to be no mechanism to anatomize the term ‘due time’ that appears in 2011 Rule. Eventually the recyclers and the cash buyers remain the key persons to decide when and how much time to offer to the regulatory authorities for ship’s inspection or whether to frustrate the process entirely keeping virtually no tangible accountability whatsoever either of the EOL shipowners namely the cash buyers or the ship recyclers.

Subject to the prescribed formalities, the rule has set a strict time frame of only two working days for beaching and breaking permission to be granted. It has also been designed to streamline the boarding process on an expedited basis. These expediting mechanisms although is designed to increase business efficiency of ship recyclers, may adversely affect the quality of screening required by the rule. It is feared that, the breakneck speed in the process of detection without any safeguards addressing the capacity and resources could result in a perfunctory job.

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106 Usually, the tidal time scale in Chittagong is every 6 hours. However, the high tide that is suitable for beaching comes in average 3 to 4 times a month. Interview with Captain Anam Chowdhury, Beaching Master and Advisor, Bangladesh Ship Breakers Association (BSBA), Chittagong (Aug. 4, 2016) [hereinafter Captain Anam Interview]. See also Tide-Forecast (2018), “Beaching is the process in which a ship is laid on a tidal mudflat. The vessel is grounded deliberately during high tide popularly called as beaching tide. The ship breaking operations usually take place during low tide when the vessel is not submerged by the sea” (Captain Anam Interview).

107 Captain Anam Interview.

108 Ali Shahin Interview.

109 Id. at Rule 9.7.

110 Id. at Rule 11(viii).

111 Interview with Md. Mokbul Hossain, Director Department of Environment Chittagong Division, Chittagong (Aug. 4, 2016) [hereinafter Mokbul Hossain Interview].
The Position of New and Existing Ship Under SBRR 2011:

An ocean-going ship built with hazardous substances in its structure poses environmental issues proportionately at the end of its life when they are dismantled. It is therefore also necessary to regulate ship builders and ensure that they avoid using the unnecessary hazardous substances at the stage of construction of ships in a ship building facility. The 2011 rule does not forbid new installation of any hazardous material in the structure of a new ship at any shipbuilding facility in the country or a dry dock while repairing an existing ship at any port facility or offshore terminal irrespective of the flag of the vessel. This omission apparently covers the ships destined for recycling only. New and operating ships, both foreign and local, are excluded from the jurisdiction of SBRR 2011.

The Uncertainty With Downstream Waste Management:

Generation of numerous types of hazardous waste is a natural consequence of ship dismantling in any facility. These downstream toxic substances must be removed timely from the facility and disposed of in an environmentally sound manner through a well-managed downstream waste management system in other words through an authorized Treatment Storage and Disposal Facility (TSDF). The 2011 rule did not include this inseparable downstream waste management work as part of the ship recycling activity. However under the 2011 rule when applying for a ship recycling facility plan (SRFP) every ship recycling facility (SRF) must have an existing membership with a pre-registered treatment, storage, and disposal facility (TSDF) operator. Currently, there is no TSDF facility authorized by the government of Bangladesh, and according to recent SENSREC report more than 150 SRFs have been au-

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112 Id. at Rule 2 (x).
113 Id. at Rule 15.1 (b). Note that SBSR 2011 is fully enforced since December 2011 and 165 SRF has been authorized by the MoI. However, as of now no TSDF operator has been operating in the country. However, the MoI is undergoing 2nd Phase of SENSREC project that covers TSDF which is now ongoing.
114 Interview with Mizanur Rahman, National Project Manager, IMO SENSREC Project, Deputy Secretary, MOI, Dhaka, Bangladesh (Aug. 1, 2016).
It is therefore apparent that the SBRR 2011 has failed to provide an interim measure for the authorization of the SRF pending these essential services are set up by the government.\textsuperscript{116}

The EOL Ships: a Hazardous Waste or Hazardous Material?
The rule did not make any sensible distinction between the terms; ‘hazardous waste’ and ‘hazardous material’ which are completely different objects and governed by different international regimes.\textsuperscript{117} A substance attributed as ‘hazardous waste’, as opposed to ‘hazardous material’, attracts complex prohibitory jurisdiction of the Basel Convention.\textsuperscript{118} The SBRR 2011 without regard has used these keywords interchangeably.\textsuperscript{119} Even the word ‘waste’ has got different meanings in different jurisdictions, and the international law is still struggling to settle this definitional issue.\textsuperscript{120} Apparently, the definition of ‘hazardous waste’ is far from settled in international law.\textsuperscript{121} SBRR 2011 is essentially a transnational regime with significant international impact and the ability to govern the activities of international actors beyond the domestic territory.\textsuperscript{122} An inconsistent use of core terminologies may contribute to an irreconcilable transnational jurisprudence on the cross-border movement of goods, waste and hazardous waste alike.

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\textsuperscript{116}\textsuperscript{116}It therefore seems that all the SRF authorized currently by the Government are operating without fulfilling the prerequisite of the authorization of the SRF under the SBRR 2011.

\textsuperscript{117}\textsuperscript{117}Id. at Rule 2 (xix).


\textsuperscript{119}\textsuperscript{119}Id. at Rule 2 (xv).

\textsuperscript{120}\textsuperscript{120}Ahmed, \textit{supra} note 86 at 440-442

\textsuperscript{121}\textsuperscript{121}Id.

\end{flushright}
Ship Recycling Facility Plan (SRFP):

The rule recognizes that the handling of asbestos is a major area of concern.\textsuperscript{123} It requires all yard owners to construct ACM (Asbestos Containing Materials) and a negative pressure chamber.\textsuperscript{124} However, it’s not mandatory for yards having asbestos containment capacity less than 100 metric tons.\textsuperscript{125} A scrap ship on average contains 15,000 pounds (approximately seven and one half tons) of asbestos.\textsuperscript{126} Depending on size and capacity, each yard dismantles up to three ships on average per year.\textsuperscript{127} On the other hand, hazardous waste cannot be stored in a facility more than ninety days after production.\textsuperscript{128} In practice, there would hardly be any need for any yard owners to use and maintain negative pressure chambers of 100-ton capacity for asbestos management at the facility, as required by law.\textsuperscript{129} It is apparent that a substandard facility with minimal investment in safety may still qualify without violating the standard set by the rule. The rule also did not make any attempt to eliminate or reduce the manual labor that has been supporting the industry in South Asia since the 1980s.

Authorization of Ship Recycling Facility

Before being authorized, a SRF is required to submit an undertaking about its safety, health and environmental management system,\textsuperscript{130} its commitment to continuos improvement,\textsuperscript{131} identification of rules and responsibilities of the personnel engaged in it,\textsuperscript{132} and emergency preparedness,\textsuperscript{133} or a system of monitoring the performance by safety offi-

\textsuperscript{123}SBRR 2011 Rule 16.1(x).
\textsuperscript{124}Id. at Rule 18(iii).
\textsuperscript{125}Id. at Rule 16.1(x).
\textsuperscript{127}Interview with Md Abu Taher, President of Bangladesh Ship Breakers and Recyclers Association (BSBRA), Zhoushan, China (July 25, 2019).
\textsuperscript{128}HWR 2011 Rule 20(3).
\textsuperscript{129}SBRR 2011 Rules 16.1(x), & 17.19
\textsuperscript{130}Id. at Rule 15.6.
\textsuperscript{131}Id. at Rule 15.6 (b).
\textsuperscript{132}Id. at Rule 15.6 (c). The Rule does not clarify how this cancellation is different than a mere suspension if the authorization can be legally reinstated on addressing the shortcomings.
\textsuperscript{133}Id. at Rule 15.6 (e).
However, it is not clear, how a violation could legally be assessed, as there has been no attempt to set any specific obligation concerning any of the above activities, including the deadline within which these undertakings are to be in compliance.

The Enforcement Strategy Under SBRR 2011

In any event, the cancellation of the permit is restricted to non-compliance with agreed conditions of authorization by the SRFP. The approval can be legally reinstated by addressing the shortcomings. There is no consequence for any past violations. This flexibility may not contribute in discouraging breach and a scrupulous owner of an SRF may be tempted to wait until the faults are detected by the regulatory agencies. Apparently, there is also no mechanism that guarantees regular inspection of the facility directly on the part of the Competent Authority.

Import of End of Life Ship

An EOL ship often creates a situation of ‘fait accompli’ on its arrival. DoE apparently is in a better position to judge environmental issues while issuing the NOC before its imports, but steered clear from such an important process by the 2011 rule. NGOs have adduced much evidence of fraud committed by cash buyers regarding the precleaning of ships prior to sending them to Bangladesh. There has been no attempt to incorporate this expertise in the policy making process by

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134 Id. at Rule 15.6 (f).
135 Id. at Rule 15.4.
136 Id.
137 ‘fait accompli’ is a French legal term which means a thing that has already happened or been decided before those affected hear about it, leaving them with no option but to accept it. See www.dictionary.com/browse/fait-accompli
138 SS Norway.
139 Department of Environment
140 No Objection Certificates
141 Once a vessel reaches the end of its service life, most ship owners sell their vessel to a so-called cash buyer. Cash buyers are companies that specialize in the trade of end-of-life vessels, and most - if not all - sales of end-of-life ships to beaching yards in South Asia
the government. Filing a dispute in a court regarding the hazardous status of a vessel at the point of entry into the facility, leading to an arrest of a ship, has been an ongoing phenomenon in the current ship recycling market in Bangladesh.143

Pre-Cleaning of End of Life Ships

Before exporting an EOL ship, the SBRR 2011 does not require the ship owners to remove additional oil from the bunker tanks that are not essential for ship’s last journey to the recycling facility.144 As such, the rule permits the cleaning process to take place entirely on the beach.145 Similarly, except tanker, there is no requirement for the issuance of a gas-free certificate for hot work at anchorage.146 Hence, such certifications and laborious cleaning operations are not effectually prohibited at the intertidal part of the beach. The tidal differences in the coastal belt of Chittagong, Bangladesh is one of the highest in the world.147 When ships are dismantled on the open beach, toxic substances are released from the ship’s mass while dismantling operations take place, and are then washed away with semidiurnal waves, inevitably reaching the marine environment.

Ship Recycling Plan

The Ship Recycling Plan (SRP) is a ship-specific document that covers the detailed planning and sequence of the cutting process.148 This document is prepared by yard owners based on the information on hazardous materials supplied by the Master of the vessel.149 Its purpose is to ensure, whether a certain facility can safely manage the hazardous wastes to be generated from recycling a certain ship. The SBRR 2011 is not clear at which stage the SRP would be prepared. Given beaching is a non-re-

144 SBRR 2011 Rules 12, 10.1, 16, 7(a), 19(b), Annexure III.
145 Id. at Rule 10.1.
146 Id. at Rule 9.8, Annexure II.
148 SBRR 2011 at Rule 16.
149 Id. at Rule 16.1(ii).
versible process, the rule presumes that all authorized SRFs are readily capable of handling all types of ships with any amount of hazardous waste both inbuilt and onboard without reservation. Therefore, if the amount of hazardous wastes is found to be unmanageable in a specific yard due to the lack of its infrastructural capability, this may end up with a catastrophe.

On the other hand, the rule has imposed exorbitant penalty against shipowners or their agents for false declaration of hazardous waste found to be unmanageable for the yard owners after non reversible beaching. But it is unclear how this penalty would be enforced against a foreign ship owner who has concluded a deal of sale and the local agent may not be capable to satisfy such a huge financial penalty in practice.

Safe System of Work

The workplace at the ship recycling yards offers some unique challenges. Unlike ship building, there is no commitment to profit by the skill of naval architects likely to employ scientific methods in ship recycling. The myriad of circumstances in which the workers find themselves while dismantling ships often poses unreasonable risk-taking. Moreover, the rule requires cranes to be tested on regular intervals and constant supervision is required while heavy loads are lifted by cranes. Unfortunately, the rule does not explain how to use cranes alongside the ship on the soft, moving, muddy beach where they are actually needed. The rule did not clarify the specific use of the crane at beaching facilities.

In SBRR 2011, there is no requirement to set up any permanent firefighting infrastructure and the rule has put substantial reliance on portable fire extinguishers. The Rule relies heavily on the informal neighborhood assistance. An emergency response system relying on unorga-

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151Id. at Rule 46.12. The penalty is one crore (Equivalent to USD 125,000).
153SBRR 2011 Rule 17.19(f).
154Only used at the yard gate for loading of processed scrapped metal over the truck.
155SBRR 2011 Rule 17.20.
156SBRR 2011 Rule 30.3 (b).
nized, untrained voluntary workers from the neighboring populace may be inadequate when needed.

It is apparent that the SBRR 2011 was adopted in the face of mounting criticism against lawlessness in the governance of this pollution-heavy industry in Bangladesh. This was followed by the order of the High Court Division of the Supreme Court of Bangladesh in a Writ Petition that compelled the government to adopt the rule hastily within a specified timeframe. Evidently, in absence of a settled independent regulatory agency, there was a severe lack of effective competition within this industry in Bangladesh and the potential for the undue exercise of market power was considerable. NGOs have reported that in any stage of the law making process in both the SBRR 2011 and the SRA 2018, little or no substantive consultations took place with relevant stakeholders such as environmental or labour activists. In their adoption processes and in the legislative texts, no reflection of any of the long standing and established general principles of environmental laws such as polluter pay principle, proximity principle, precautionary principle or common and differentiated responsibility have been noticeable.

Furthermore, under the international law on ship recycling, namely the HKC, the Competent Authority is a governmental regulatory agency. A regulatory agency is a public body responsible for exercising autonomous power over some areas of human activity in a supervisory role. Regulatory agencies or authorities are commonly established to enforce standard of safety and to protect the consumers in a market with lack of fair competition or the potential for the excessive or undue use of market power. Regulatory agencies are therefore typically part of the executive branch of the government and have received their power from the legislative branch. Their actions are generally open to scrutiny by way of judicial review. Under the BSRA 2018, the governing bodies of the Competent Authority for the ship recycling in Bangladesh namely the BSRB is formed by 13 members of the board where at least three members are appointed by the government who represents ship recycling industry who are the subject of governance by the BSRB. Given only one third board members are required to form the quorum as per the BSRA 2018 for a meeting to be valid in the board level and no quorum is

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158 Id at 194
159 Id at 207
160 HKC Art 2.3
161 Bangladesh Ship Recycling Act 2018, Sec 10
required in the adjourned meetings there is a significant cause for concern about the optimum functioning of this regulatory agency. Attaining sustainability in this industry in Bangladesh using these questionable legal provisions may prove to be a difficult exercise.

Vii. Worker’s Rights in Ship Breaking Industry in Bangladesh

The supreme law that governs the right of workers against their employers in Bangladesh is the Labour Act 2006 (LA 2006). Under this law, a shipbreaking yard is an industrial establishment as well as a factory where production process is carried on. This Act applies to the ship breaking workers.

Conditions of Employment

The 2011 rule imposes considerable penalty upon the yard owners for engaging uncertified workers, women workers, and underaged workers. The same rule applies to the workers supplied by contractors. However, as far as the employment rights of the workers, provided by contractors, are concerned, the SBRR 2011 is silent, and Labour Act 2006 (LA 2006) imposes this obligation upon the current employers, which in the ship breaking sector is mostly the contractors. Under the recent amendment of the Labour Act 2006, establishment of any contractor and subcontractor engaged in shipbreaking

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162Bangladesh Ship Recycling Act 2018, Sec 12(6)
164The requirement is satisfied if the facility uses at least five workers on any day of the year.
165SBRR 2011 Rule 46.
166Id. at Rule 45.5.
167Id. at Rule 46.4.
168Id. at Rule 17.1.
170Almost all workers are recruited by the contractors on day basis. See Ship Breaking Bangladesh (2012), www.shipbreakingbd.info/overview.html.
is also a separate and independent industrial organization\textsuperscript{171} and is accountable for all its actions as an employer. The Labour Rule 2015 (LR 2015) enacted under the power granted in LA 2006 confirms that a contractor’s establishment is a separate and independent organization.\textsuperscript{172} However, the temporary employment practice makes it easy for the yard owners to shift many substantive obligations to the workers upon the contractors and the subcontractors. As per the LA 2006, the yard owners do not have to take the financial liability to compensate workers if a casualty is resulted from a breach of contract or the negligence of the contractor.\textsuperscript{173} The remedy of workers for compensation on death and injury may practically lie in most cases to the contractors only.\textsuperscript{174} This is a significant possibility as contractors are the principal supervising authorities for the workers who owe primary duties to supply PPE and training for their workers under the latest amendment of LA 2006.\textsuperscript{175}

To obtain a registration, a contractor is required to be solvent and requires executing a bond or surety.\textsuperscript{176} The security deposit for a contractor’s establishment able to supply workers up to hundred is only BDT 200,000 (USD 2,500 approximately).\textsuperscript{177} Although license fees are charged as per the nature of establishment such as a shop, restaurant, factory, bank or an insurance company but there is no such distinction is made between a hazardous industry like ship breaking and others.\textsuperscript{178} A ship breaking yard has therefore been considered in equal term with non-hazardous industry like bank, restaurant, food court, hair salon or a departmental store where the question of compensation for loss of life or limb is hardly relevant. The question of financial liability arising out of coastal pollution in beach breaking is crucial but how such miniature establishments would bear all such great liabilities pose many impenetrable questions.

\textsuperscript{173}Id.
\textsuperscript{174}According to the current report, ongoing wages of the workers are not an issue, but the works and their family members face a severe struggle in recovering the concession on death or permanent injuries.
\textsuperscript{175}Under the LA 2006, except compensation for death and injury and the issue of training the employers do not appear to hold any responsibility for the workers supplied by the contractors.
\textsuperscript{176}BLR 2015 Rule 11
\textsuperscript{177}BLR 2015 Schedule 7. In a ship breaking field, each contractor supplies 50 to 100 workers, and there may remain several contractors engaged at a time (Interview).
\textsuperscript{178}Id. Schedule.
To confer same right as a regular worker, the term ‘temporary workers’ has recently been included in the definition of “worker” under the latest amendment of LA 2006. A wide range of rights, widely claimed by the industry, are now readily available to the workers of the ship breaking industries who mostly are temporary workers. These include right to have a service book, an appointment letter, ID card with photos, overtime payment, casual leave, medical leave, sick leave, yearly holiday with wages, festival holidays, ad-hoc or unpaid wages and many more. There are also special provisions for welfare, dispute resolution, right to form a trade union, restrictions on recruitment of children and adolescent labors, etc.

Apparently, the ship breaking workers are now favored with many substantive rights, but most of such rights are tied to the status of permanent employment. The benefits are measured according to the duration of service within a closed loop of a year or one-half year of continuous service. The SBRR 2011 does not mandate employing permanent workers irrespective of the financial ability of the yard owners. As noted earlier, over 70% are migrant workers who mostly arrive from the northern and impoverished part of the country.

A worker may not also be able to work with the same contractor every day. The service book that contains essential rights such as the service

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180 Id.

182 Id.


185 Interview with Mohammad Nazim Uddin, Joint Convener, Ship Breaking Trade Union Forum, Chittagong (Aug. 10, 2016) [hereinafter Nazim, Uddin Interview] also Shahin Interview, supra note 7. Also E-mail from Nicola Mulinaris, Communication and Policy Officer, NGO Shipbreaking Platform, Brussels, Belgium (Mar. 21, 2016).
record, performance and experience\textsuperscript{186} is reserved for the permanent workers and not available for the temporary workers under the LA 2006.\textsuperscript{187} Under Sec.100 of the LA 2006, the regular working hours are forty-eight per week.\textsuperscript{188} If any worker works more than forty-eight hours in each week, he is entitled to receive overtime benefit which is almost twice than his regular pay rate.\textsuperscript{189} The maximum permitted hours are eight hours in a day with two hours overtime permitted subject to section 108 of the LA 2006.\textsuperscript{190} Hence, if a worker can work for four days with ten hours in each day of a given week,\textsuperscript{191} it would remain up to the discretion of contractors whether to pay him overtime wage or not. This is unlikely, as calculating a six-day slot of the week, a worker may not fulfill the forty-eight hours threshold in each week. Similarly, the provisions on weekly holiday do not assist temporary workers as they may be operated under different contractors on different days of the week.

Few substantive benefits become due when a worker completes six months continuous service, and other requires one year under a single employer in a given calendar year.\textsuperscript{192} For example to get compensation as a leased worker,\textsuperscript{193} to earn ten days casual leave annually with pay,\textsuperscript{194} to receive fourteen days sick leave in a year\textsuperscript{195} and leave with pay

\textsuperscript{187}Id. at § 6, www.bdlaws.minlaw.gov.bd/bangla_sections_detail.php?id=952&sections_id=29074.
\textsuperscript{188}Id. at § 102(1), www.bdlaws.minlaw.gov.bd/bangla_sections_detail.php?id=952&sections_id=29429.
\textsuperscript{189}Id. at § 108(1), www.bdlaws.minlaw.gov.bd/bangla_sections_detail.php?id=952&sections_id=29435.
\textsuperscript{190}Id. at § 100, www.bdlaws.minlaw.gov.bd/bangla_sections_detail.php?id=952&sections_id=29427.
\textsuperscript{191}Many workers in ship breaking field work in average 10 hours a day under the contractors. \textit{See} Where do the “floating dustbins” end up? FIDH, p20 and p38 www.fidh.org/IMG/pdf/bd1112a.pdf
\textsuperscript{193}Id. at § 16(1), www.bdlaws.minlaw.gov.bd/bangla_sections_detail.php?id=952&sections_id=29158.
\textsuperscript{194}Id. at § 117 (1), www.bdlaws.minlaw.gov.bd/bangla_sections_detail.php?id=952&sections_id=29444.
\textsuperscript{195}Id. at § 115, www.bdlaws.minlaw.gov.bd/bangla_sections_detail.php?id=952&sections_id=29443.
benefit,\textsuperscript{196} a worker must complete one-year continuous service under a same employer.\textsuperscript{197} These benefits are also tied to a given calendar year and expressly made non-cumulative i.e. nontransferable to the following year.\textsuperscript{198}

Again to be entitled to compensation for death while in service, the worker must be in continuous service for two years preceding to his death as a permanent worker.\textsuperscript{199} To be compensated for an occupational decease suffered in the facility, the worker must serve for that establishment for at least six months consecutively.\textsuperscript{200} In a ship-breaking facility at least twelve percent of workers suffer from asbestos-related disease.\textsuperscript{201} Very few of the workers would pass this consecutive day of service requirement. Moreover, there is a long latency period and most of the occupational diseases that are common in these toxic industries may develop after long time of exposure to toxic conditions.\textsuperscript{202} There would also be no scope for joint liability between the employers even if the disease had developed over years of working in two or more facilities if the duration of service with each employer is less than six months which happens most frequently. Hence in the absence of any requirement to recruit permanent workers, there is every incentive to hire temporary workers as they hardly have anything to claim other than their daily wages. Under the LA 2006, if the number of permanent workers exceeds one hundred, the employer is bound to purchase group insurance policy for the workers.\textsuperscript{203} Moreover, there is no hard and fast rule to dismiss temporary workers by the employers who as per the law can be hired and

\begin{itemize}
\item \textsuperscript{196}Id. at § 118(1),
\item \textsuperscript{197}Id. at § 115,
\item \textsuperscript{198}Id.
\item \textsuperscript{199}Id. at § 19,
\item \textsuperscript{200}Id. at § 150(3)(b).
\item \textsuperscript{201}Tarek Mahmud, Asbestos: The slow poison killing ship-breaking workers, Dhaka Tribune (Feb. 3, 2017),
\item \textsuperscript{202}Mesotheleoma (2018),
  www.mesotheliomaguide.com/mesothelioma/symptoms/latency-period/.
\item \textsuperscript{203}Id. at § 99 (1),
\end{itemize}
fired at will without any compensation or notice whatsoever which does not apply to the permanent workers under the LA 2006.\textsuperscript{204}

Child and Adolescent Work

Under the LA 2006, there is a complete prohibition of child labor in any industry in Bangladesh.\textsuperscript{205} However adolescents can be recruited if a medical certificate or birth certificate is kept in the custody of the employer,\textsuperscript{206} and the adolescent must be supervised by an adult competent person at work.\textsuperscript{207} Hazardous activities in Bangladesh are listed by the government time to time by gazette notifications.\textsuperscript{208} Ship-breaking has been classified as one of the most hazardous activities vide Sec 68 of the Labor Rule 2015.\textsuperscript{209} Under the SBRR 2011, the recruitment of both child and adolescent has been completely prohibited also included are women workers.\textsuperscript{210} Under the SBRR 2011 the financial penalty against yard owners for appointing a worker below eighteen is BDT 75,000 (Equivalent to USD 950) per worker.\textsuperscript{211} This is a considerable amount in the economic market of Bangladesh given child labor and adolescent works are ubiquitous in Bangladesh with no practical barrier in the field.\textsuperscript{212} The extreme poverty connected to family backgrounds having no social security from the government prevents these laws from being enforced strictly. There is in fact no shortage of avenues to hide away even if caught red-handed. Corruption is widely prevalent across the coun-

\textsuperscript{204}Under the LA 2006 Sec 20, the employment contract between a temporary worker with his employer is a ‘contract at will.’ Therefore, the remaining provisions even have no bearing on the length of service are also quite vulnerable to them.


\textsuperscript{206}Id.

\textsuperscript{207}Id. at § 40.1, www.bdlaws.minlaw.gov.bd/bangla_sections_detail.php?id=952&sections_id=26441.

\textsuperscript{208}Id. at § 39 (1), 39 (2), www.bdlaws.minlaw.gov.bd/bangla_sections_detail.php?id=952&sections_id=26440.

\textsuperscript{209}BLR 2015 § 68.

\textsuperscript{210}SBRR 2011 Rule 46.4. The Majority Act of 1875 Bangladesh describes a person to be a child below 18 years.

\textsuperscript{211}Id. at Rule 46.5.

\textsuperscript{212}Id. at Rule 46.4.

try and ship-breaking industry is not an exception. Many children or adolescents are raised by single parents or have lost their father; the only source of income. Understandably, all these incidents are coined by poverty and hunger, not by any gain or profit. Interestingly under the LA 2006, the parents of the child workers may also be penalized.

Contrary to the LA 2006, the SBRR 2011 has been quite loud on the issue of child and adolescent labor but remains mum in addressing the real problem on the ground; submission of a fake certificate as a proof of age by the employers. It appears that the regulatory authorities in Bangladesh hardly control the influx of children at ship breaking yards and there is every chance to employ adolescent workers in a ship-breaking yard by disguising the age without any practical consequence against the yard owners. The report of NGO reveals that up to twenty five percent workers are adolescent across the shipbreaking industry currently in Bangladesh.

Workers Union

Traditionally, the politicians in Bangladesh have used the trade union as one of the ways and means to achieve their political dreams. The Fair Labor Association reports that, in 2002, in Bangladesh only three percent of workers were affiliated with trade union and among them the majority

were closely affiliated with national politics, having less involvement with economically active population at work. Almost 75 to 80 percent of those workers belong to the informal sector in Bangladesh. The majority of these low profile, financially active people lack formal education and are often dominated by the politicians in the country on whose clemency their leaders depend for personal gain with no practical benefit to these ordinary workers. On the other hand, it has been revealed that 90% of the established employers belong to the owner's association, unfettered from national politics. The businesspersons, instead, dominate the politics as most of the members of Parliament in Bangladesh traditionally are high profile business icons. LA 2006 is infiltrated with severe flaws identified by the ILO which has recommended immediate reform in the collective bargaining process. However, all these fell on deaf ears as the government has traditionally played a double role. The government says workers are free to join trade unions as per their choice, but maneuvered the law in such a way that implementing collective bargaining in the real sense has remained infructuous.

LA 2006 has conferred equal rights to both employers and employees to form and join unions and elect their representatives in full freedom to pursue their common goals. To enjoy such rights, an employer is no different than an employee. Traditionally, however a broken chain of command exists between workers and their unions mostly because of some complicated socio, economic, and cultural equations and political belief that isolate them more swiftly. Under the LA 2006, there is no

222Andrew Brown, Jane Hutchison (ed.), Organizing Labour in Globalizing Asia, Routledge, 2003, 34
226Id.
227LA 2006 § 176.
threshold in the number of labor unions that can be formed in an organization. On the other hand, the law requires at least 30% of worker participation in the registration of a trade union.\textsuperscript{228} Observance of this broken culture followed by ill-disposed legal provisions makes it difficult in practice to unite them and fulfill the minimum quantitative requirement for registration. Moreover, until the registration is complete, any function of union is prohibited by law\textsuperscript{229} and the code is silent about the preparatory activities directed to form a new union. This gap in law has traditionally been abused by the employers in many industries in Bangladesh including the ship-breaking, extensively to dismiss a worker attempting to begin talking about a labor union with other co-workers within a business establishment.\textsuperscript{230} ILO committee of expert considers the issue as a severe restriction of the worker's ability of collective bargaining and to form a union as per their choice which needs immediate reform.\textsuperscript{231} It has oftentimes been reported that employees have been persecuted personally by deploying police to their residence.\textsuperscript{232}

In fact, the contracts of the contractors with the yard owners often do not last long and mostly ship specific.\textsuperscript{233} A meaningful trade union in such a bizarre circumstance is virtually unimaginable. It appears that government has traditionally attempted to use the power of lawmaking and the instrument of law to maintain a status quo thereby legalizing the vulnerable position of the workers in general.

**Worker’s Right To Strike**

Employees have the right to protect their economic interest through strike. Industrial Relations Ordinance 1969 (Ordinance no XXIII of 1969) recognizes such right.\textsuperscript{234} However, the condition of freedom of

\textsuperscript{228}Id. at § 179(2).

\textsuperscript{229}Id. at § 192, 233.

\textsuperscript{230}Interview with Rizwanur Rahman Khan, Joint Secretary General, Bangladesh Free Trade Union Congress, Chittagong, Bangladesh (Aug. 5, 2016) [hereinafter Rizwanur Rahman Interview].


\textsuperscript{232}Annual Public Report supra note 191.

\textsuperscript{233}Interview with AM Nazim Uddin, Joint Convener, Bangladesh Institute of Labour Studies Chittagong, Chittagong, Bangladesh (Aug. 5, 2016).

\textsuperscript{234}Industrial Relations Ordinance 1969 § 28.
association looks vulnerable under this law where there is a penalty including imprisonment for instigating illegal strike or lock-out or taking part in or instigating a ‘go-slow’. The go-slow has been defined under the ordinance as organized, deliberate and purposeful slowing down of standard output of work by a body of workers. The law has defined illegal lockout and strike but not illegal go-slow. Go-slow technique is used to persuade an employer to agree to higher pay or better working conditions usually is a mild version of a strike, it may also be said. So, according to the definition, any attempt to get the employer to agree to higher pay, better working condition, could be interpreted as a go-slow action. These provisions are not difficult to explain in favor of the employers where, irrespective of the justifiability of go-slow, a company can initiate action under the Section 53 of the IRO 1969 (Industrial Relations Ordnance 1969). In a condition of pauperism, mere filing criminal cases irrespective of their merit against workers living hand to mouth is good enough to despoil his entire wherewithal of life with no compensation whatsoever regardless of the outcome of the cases. Also, the words, ‘organized’, ‘deliberate’, and ‘purposeful’ used in IRO 1969 deserve further clarifications to avoid any misuse of power enjoyed by the employers.

Ship recycling is a highly labor-intensive industry with significant rate of casualty record consistently being apparent since 1980s when the industry migrated to the South Asian region. Due to this high risk factor, this industry has attracted some of the most vulnerable classes of people from the most destitute parts of some developing counties of South Asia where the industry has flourished. In both Bangladesh, India and Pakistan there has been a common hallmark of this industry where migrant people from the poorest parts of the country have constituted the main body of the ship recycling workers pool. Almost 98% of the workers of this industry is temporary and this position is unlikely to change soon as most ship breaking facilities by virtue of the very nature of the industry are not engaged in breaking of ships all over the year and the ship-breaking task therefore can be said as intermittent in nature. The part time nature of ship breaking works creates a significant hurdle to create a skilled worker’s pool in the industry which undoubtedly forms an essential part of the equation of sustainability of this industry. Due to these special characteristics prevailing in the ship-breaking industry, the

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235 Id. at § 59.
236 MD. Saiful Karim, Shipbreaking in Developing Country, A Requiem for Environmental Justice From The Perspective of Bangladesh 6 (2018).
238 Id at 166
mainstream labor law, applicable to all other types of industries in the
country, does not go along easily with this most dangerous and labor-in-
tensive industry in the world. As a truly global industry, it would hardly
be possible to solve this problem unitarily from a state level. To circum-
vent this problem the ship-breaking labor regulations should be harmo-
nized among ship recycling states, taking note of the special character
and risks involved in ship-breaking works. A separate international
regime like the Maritime Labor Convention (MLC) incorporating the
special rights of ship-breaking labours may be considered. This may in-
corporate provisions for the standardization of worker’s training and cre-
atation of a pool of minimum number of regular workers.

Viii. Environmental Compliance and Monitoring

The Department of Environment is entrusted to issue a yard specific
 clearance; however, the 2011 rule did not make clear if it is compulsory
to release a ship specific clearance before the beaching permission is
granted.\footnote{SBRR 2011 Rule 3.3.} This silence in law has provided the recyclers of ships oppor-
tunities to argue that under the current state of law no environmental
clearance is necessary before beaching and recycling of ships.\footnote{Mintu Chowdhury, Bangladesh shipbreakers contend no need for 
bdnews24.com/bangladesh/2016/11/07/no-need-to-environmental-
clearance-say-ship-breakers-in-bangladesh.} As a result, in a very few cases, the ship specific NOC is applied for by the
yard owners.\footnote{Id.} In some areas, overlapping of responsibility between two
departments of the government has been apparent. For example, both the
DoE and the SRB oftentimes have been entrusted with identical respon-
sibility but with separate accountability to their respective departments.
The responsibilities include regular monitoring of air quality, water and
soil quality using sample from the site.\footnote{SBRR 2011 Rule 18(viii).} In those circumstances, which
department is primarily accountable to address those issues, has been a
debatable issue. As an orange (B) category industry\footnote{MD. Saiful Karim, Shipbreaking in Developing Country A Requiem For
Environmental Justice from The Perspective Of Bangladesh 101 (Routledge,
London and New York, 2017).} DoE applies the
same criteria over the ship breaking industry as applied to all other land-
based hazardous industries to collect the sample of water, air, soil, etc.\textsuperscript{244} The same method of testing water and soil sediments does not appear to be suitable in the coast based industry, working within semi-diurnal mode of tidal water that changes direction in every six hours. The deposits in the intertidal zone of the sea hardly settle down and wash away directly into the ocean body continuously. On the other hand, the SRB is required to carry out the same task of environmental monitoring independently through an industrial & scientific research lab.\textsuperscript{245} Interestingly the SBRR 2011 has imposed upon the Competent Authority a hard-hitting duty to evolve the beaching method into a complete pollution free venture with zero tolerance by ongoing environmental monitoring practice followed by scientific data analysis.\textsuperscript{246} The rule also has imposed a duty upon the yard owners to support the DoE in their endeavor to the environmental monitoring by supplying adequate logistics, workforce, testing equipment's, vessels, etc.\textsuperscript{247} It is noteworthy that an obligation attached with scientific impossibility is unlikely to be enforced in the court of law. Moreover, a regulatory duty that relies solely on the technical and logistical support of the regulatees may also potentially be unsuccessful due to the presence of conflicting interests.

The HWR 2011 implements the Basel Convention in Bangladesh\textsuperscript{248} however, unlike the Basel Convention, it applies to the entities dealing with the hazardous waste and hazardous materials alike.\textsuperscript{249} These two terms have been interchangeably used with same meaning to impose liability upon the operators of both hazardous waste and hazardous materials in the country.\textsuperscript{250} There is no difference made in the content of the

\begin{footnotes}
\item Mokbul Hossain Interview. Noting that shipbreaking despite poses significant threat to the Marine environment, Govt. still has placed the ship breaking into an orange category instead of the red category. For red listed industry according to Bangladesh Environment Conversation Rule 1997, a heightened measure of environmental clearance is required whereas lesser stringer measure is applicable to the orange category industries. In 2009, the Government assured the Supreme Court that it has taken step to upgrade the ship breaking from the Orange B to red category WP 7260 of 2008. See BELA v. Government of Bangladesh, Bangladesh Supreme Court Writ Petition (Civil) No. 7260, 4 (2008), www.bdpil.org/assets/uploads/pdf/c86f3-judgement-ship-breaking-7260-of-2008.pdf.
\item SBRR 2011 Rule 18(viii).
\item Id.
\item Id. at Rule 18(vii).
\item HWR 2011 Rule 17.
\item Id. at Rules 2(28), 2(30).
\item Id. at Rule 5.
\end{footnotes}
definition.\textsuperscript{251} Under the rule, the importer of the hazardous waste or material needs to ensure that actual product corresponds with the description in the document.\textsuperscript{252} Any consignment or lot of hazardous material or hazardous waste is illegal unless permitted by the appropriate state authority of Bangladesh or if permission has been obtained by fraud or deception.\textsuperscript{253} In violation of this provision, the importer is primarily responsible for taking the consignment of hazardous waste back to the exporter at his own cost within 30 days of arrival at the anchorage.\textsuperscript{254} If due to any inevitable reason the shipment is not possible to return, the importer will remain responsible for bearing the total cost of destruction of such waste or materials in Bangladesh.\textsuperscript{255} Basel Convention, on the other hand, makes such transaction a criminal offense.\textsuperscript{256} The Conference of the Parties (COP) of the Basel Convention has declared the EOL ship as a hazardous waste in its integral form,\textsuperscript{257} but the provision of the illegal shipment under Sec 18 of the HWR 2011 does not appear to apply to EOL ships. It is noted that the rule has used the words consignment or lot. Logically it applies to any lot or consignment which can be carried as cargo by a carrier. Hence, it appears that the rule applies to only hazardous wastes or materials when carried as cargo, not the carrier itself when it is the subject matter of import. On the other hand, the procedure to import an EOL ship is mentioned separately under section 19 of the same rule. This makes it more arguable that section 18 does not apply to EOL ships. Section 17 of the HWR 2011 confirms that Basel Convention shall be applied to all import and export of hazardous waste and materials, but the rule is silent if an EOL ship in its intact condition is a hazardous waste and its import for scrapping can itself be considered as a lot or consignment of hazardous waste.

Unlike the Basel Convention, no state to state communication is required in Bangladesh to import any hazardous waste or goods. Seemingly, there is a massive inconsistency in the domestic waste law with the Basel Convention. It can therefore conveniently be argued that the HWR

\textsuperscript{251}The HWR 2011 has referred the ECA 1995 for definition of the hazardous material but the definition under mimic the definition given of the hazardous waste under Rule 2(30) of the HWR 2011.

\textsuperscript{252}HWR 2011 Rule 5(a).

\textsuperscript{253}Id. at Rule 18(1)(a).

\textsuperscript{254}Id. at Rule 18 (2).

\textsuperscript{255}Id. at Rule 18(3).

\textsuperscript{256}Basel Convention art. 4.3.

\textsuperscript{257}U.N. Environmental Programme, Report on the Conference of the Parties to the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal, VII/26, U.N. Doc. UNEP/CHW.7/33 (Jan. 25, 2005) (deciding that an EOL ship may become waste as defined in art. 2 of the Basel Convention and simultaneously, it may be defined as a ship under other international rules)., at 419.
2011 applies to the hazardous waste when imported as cargo only and it does not appear to affect an EOL ships with hazardous waste in its embedded structure. None the less, if the convention were strictly followed, it would have been illegal to import EOL ships for recycling in Bangladesh without prior informed consent directly from the state authority of Bangladesh. The rule appears to have made a distinction in case of EOL ships but does not make it clear as to how an EOL ship is different than other hazardous wastes under the Basel Convention. This stand is also inconsistent to the Supreme Court judgment in WP 7602 of 2008, although the court in its later judgment has diluted the rigor of its earlier version and waived the strict requirements of the Basel Convention for EOL ships without acknowledging the matter. Eventually, both the Supreme Court judgment and the HWR 2011 expressly declare that, Basel Convention applies to all hazardous waste including the EOL ships, but their factual position is sharply contradictory to the fundamental provisions of the Basel Convention of which Bangladesh is a state party since 1992.

Ix. Sanction for Violations

Punishment for the violation has been established in ship breaking industry in two different laws; The SBRR 2011 and the BSR Act 2018 (Bangladesh Ship Recycling Act 2018). Unless death or injury by negligence occurs, it seems there is no liability for violating any provision of SBRR 2011. However, the Bangladesh Ship Recycling Board (BSRB) might ask for rectification without any sanction for past wrongful action.\textsuperscript{258} In contravention to any provision of the SBRR 2011, the standard sanction remains the suspension of yard activities.\textsuperscript{259} There is no penalty for spillage of oil, sludge, hazardous waste to the environment unless the workers are supplied with proper equipment at the time of handling.\textsuperscript{260} For many types of violations, the suspension and rectification methods do not sit properly with ultimate objective of the law. For example, if any worker is made to work at a height in a single instance without a safety belt and the job is already performed without any incident of casually, it would still be a definite violation but it is pointless to keep the operation of the SRF suspended until such fault is rectified. Few other penal provisions require fines to be paid to the government treasury.

\textsuperscript{258}SBRR 2011 Rule 46.7.
\textsuperscript{259}Id. at Rule 17(14) (iii).
\textsuperscript{260}Id. at Rule 46.9.
for violations such as using uncertified workers, women, and workers below eighteen, allowing the workers to work at a height after the sunset and false declaration made by the shipowners about hazardous waste that subsequently found unmanageable. It is interesting to note that an action can only be taken against a ship recycler for loss of life and permanent injury of workers and also subject to proving negligence. There is no concept of strict liability or gross negligence or corporate manslaughter known in SBRR 2011. More interestingly an injury below than permanent disability is not actionable per se in 2011 Rule.

Bangladesh Ship Recycling Act 2018 (BSR Act 2018) also has incorporated penal provisions for certain activities carried out without permission from the appropriate authorities of the government including fake document submission in any application process. Apparently, all these punishments are restricted to mere financial penalties that do not seem to be proportional to the offenses and quite insufficient to discourage violations as required by the HKC. For example under SRA 2018, the maximum financial penalty for offences including non-reversible beaching without obtaining appropriate permission from the BSRB varies from BDT 10 lacs to 30 lacs which are equivalent to USD 12,000 and USD 35,000 respectively per violation. Given the profit margin from recycling of an EOL ship is pretty high, there is no compulsory and fixed penalty of imprisonment available in law against illegal beaching as well as ships beached illegally are not confiscated by the government, the threshold of penalty seems much inferior to the profit obtained generally from such violations. It therefore appears that gaps in the penal provision in the 2018 Act also would unlikely discourage any possible violations.

Because of such inherent loopholes in the domestic framework regulations pertaining to shipbreaking, imbalance of market powers, reluctance of the shipyard owners in following adequate safety standards, inadequate arrangements for training of workers, lack of awareness of safety

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261 Id. at Rule 46.3.
262 Id. at Rule 46.5.
263 Id. at Rule 46.4.
264 Id. at Rule 46.10.
265 Id. at Rule 46.12.
266 Id. at Rule 45.3.
268 Id. at § 21.1(b).
269 HKC art. 10.3.
270 § 26, and § 27 of SRA 2018
271 Average profit from a Panamax oil tanker with 80,000 DWT is approx. $920,000 see www.marinelink.com/news/economics-scraping414382
within the ship breaking workers themselves have failed to prevent the gradual rise of workers casualty in ship-breaking sites.\(^{272}\)

Additionally the high cost of litigation, wide ranging corruptions in the society in general, procedural difficulties in the access to justice have made it quite difficult for the peasant workers in ship breaking industry to rip the benefit of law that are available to them.

X. Conclusion

It has been observed from the discussion above that despite availability of numerous legal weaponries the temporary nature of job in shipbreaking industry in Bangladesh and serious lack of collecting bargaining for workers *inter alia* have resulted into a frustration in receiving the benefit of law. Controversies exist about the hazardous nature of EOL ships. The hazardous waste rule governing the hazardous industry in Bangladesh appears to have made an exception for EOL ships contrary to the Basel Convention of which Bangladesh is a party. Evidently, the shipbreaking regime appears to be more flexible than other hazardous waste regimes in Bangladesh that are still subject to the stricter jurisdiction under the Basel Convention. Considerable lack of coordination in enforcement mechanism has been observed. The provision on violation of the legal provisions of SBRR 2011 and BSRA 2018 and the sanction for violation do not reflect many realities on the ground and quite inefficient to demonstrate any retributive or compensatory effect.\(^{273}\) Keeping all these fundamental issues outstanding, the framework regulations of Bangladesh on ship recycling seem to have contributed too little too late to ensure a safe, environmentally sound ship recycling industry in this preeminent ship recycling state.

Bangladesh along with other South Asian players has been in the premier positions in ship-breaking business for last three decades but there has been a recent change in the dynamics of global ship recycling industry. Shipowners are increasingly preferring green yards in China and

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\(^{273}\)Ishtiaque Ahmed & Archana Reddy, SENSREC Project Phase II (Capacity Building) On file with author
Turkey.\textsuperscript{274} On the other hand, India, which is the closest competitor to Bangladesh in global ship breaking has already acceded to the HKC recently in 2019.\textsuperscript{275} There are currently about 45 ship recycling yards in India that have already obtained the statement of compliance with the HKC from international classification societies and more 15 ship breaking yards are now approaching towards this certification.\textsuperscript{276} Almost 50\% of the active recycling facilities in India have achieved the standards set by the HKC and its guidelines which no doubt will have a positive impact in India’s competitiveness in this global business. Although it’s not necessary for Bangladesh to ratify the HKC to apply its standards in its state territory, with the current circumstances as described, Bangladesh does not have many options in hand. If the gaps and the general inadequacies that have been identified in this article are not addressed by the government of Bangladesh within a reasonable time and if the power dynamics, politics and lobby cannot convince the recyclers in Bangladesh to avoid maneuvering the existing regulatory processes through undue exercise of their market powers, it may not be possible for Bangladesh to keep control and sustain the business in the long run.

\textsuperscript{276}Sam Chamber, PHP becomes first recycling yard in Bangladesh to become Hong Kong compliant, 24 Oct 2017 www.splash247.com/first-bangladesh-recycling-yard-becomes-hong-kong-compliant/>