

THE GLOBAL MOVEMENT FOR A POLICY ON SUSTAINABLE SHIP RECYCLING INDUSTRY AND THE RESPONSE OF THE DEVELOPING NATIONS: A CRITICAL ANALYSIS OF THE SHIP BREAKING REGIME OF BANGLADESH

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Abstract: Ship breaking is the most dangerous occupation and widely regarded as a pollution heavy industry in the world. This international industry, having traveled from the northern and western developed countries in 1960s via semi-developed European countries in 1970s, is now firmly established only in three South Asian developing countries namely Bangladesh, India and Pakistan. These countries recycle about 70-80% of the sea going vessels of multinational owners. The poorest among the poor, Bangladesh, is currently leading the world in ship recycling marketplace. Domestic initiatives by the courts of these impoverished nations to safeguard their countries from environmental disasters have not seen the light of success as the industry is truly global and multinational players play part from different parts of the world. These entities are not subject to any domestic policy or regulations. Without a doubt, forging an international convention and domestic ratification by the recycling states is a possible solution to this problem. To curb this industry, Hong Kong Convention was adopted in 2009 but due to the problem of ratification by the key ship recycling states, the convention remained unenforced. As per the entry into force criteria of this convention, ratification by both ship owning and the ship recycling states having certain track record of history of ship breaking in last ten years is essential. Unfortunately, due to the lop-sided record of history of ship recycling in last forty years the market was dominated tremendously by three South Asian countries only. It transpires, given the recycling experience and the geopolitical issues, that Bangladesh currently holds the key to the success of this convention, and none exists in tandem with this country that can realistically fulfill the entry into force criteria of the convention any time soon. With this unique episode in mind this article has delved into a doctrinal and critical analysis of the recently adopted policy and framework regulations of Bangladesh on ship recycling that took note of the 2009 Hong Kong Convention while their adoptions in 2011 and 2018. Many fundamental lacuna have been identified that clearly indicate the potential challenges the country is likely to face to fulfill its legal mandate to ratify the convention by 2023. This eventually may lead to a failure to ensure a sustainable & inclusive global ship recycling industry as well as the country's SDG achievement.

Key words: Shipbreaking, Ship Recycling, Hong Kong Convention, End of Life Ships, Ship Breaking and Ship Recycling Rule.

I. INTRODUCTION

Ship recycling is a process of dismantling End of Life (EOL) vessels after their useful lives are over.¹ After about 25-30 years of continuous service, a ship becomes unseaworthy², dangerous for navigation & life at sea. When a ship's maintenance costs outweigh its income, the vessel outlives its utility,³ it is then sent for scrapping as a matter of practical necessity. Around the world, annually, almost 1800 sea going ships over 500 GT⁴ become obsolete.⁵ Several other modes of disposal of end of life (EOL) ships are available globally but recycling of ships remains the most sensible option and there is no feasible alternative currently exists in the world.⁶ Shipbreaking is an international industry. The heaviness of environmental pollution and the number of workers casualties involved in ship breaking are hardly comparable with other hazardous industries.⁷ Sound management of ship breaking activity with optimum regard to the safety of life and environment raises critical question of economic viability of this very activity.⁸

II. SHIP BREAKING INDUSTRY AND SOUTH ASIA:

¹ Ishtiaque Ahmed, *Unravelling Socio-economic and Ecological Distribution Conflicts in Ship Breaking in Bangladesh for Addressing Negative Externalities in Law and Policy Making*, MINN. J. INT'L L. (2020) (forthcoming).

² *Id.*

³ TONY GEORGE PUTHUCHERRIL, *FROM SHIP BREAKING TO SUTAINABLE SHIP RECYCLING EVOLUTION OF A LEGAL REGIME* 10 (Nijhoff Publishers, Netherlands, Martinus, 2010) (ebook).

⁴ Gross tonnage (GT) is a nonlinear measure of a ship's overall internal volume.

⁵ K. P. Jain, J. F. J. Pruyn, & J. J. Hopman, *Critical Analysis of the Hong Kong International Convention on Ship Recycling*, 7 INT'L JOURNAL OF ENVIRONMENTAL, CHEMICAL, ECOLOGICAL, GEOLOGICAL AND GEOPHYSICAL ENGINEERING no. 10 684 (2013). Cited in N. Mikelis, *Hong Kong Convention: The origins of a convention*, (2012) (Presentation at World Maritime University, Malmo, Sweden).

⁶ Matt Cohen, *Ship breaking Exports: Balancing Safe Disposal with Economic Realities*, 28 ENVTL L. AND POLICY J. no. 2 245 (2005),

<https://environs.law.ucdavis.edu/volumes/28/2/cohen.pdf> (last visited Jan. 4, 2018). Cited in Jeffrey Luster, *The Domestic and International Legal Implications of Exporting Hazardous Waste: Exporting Naval Vessels for Scrapping*, 7 ENVTL L. 85 (2001).

⁷ Interview with Md. Ali Shahin, Coordinator, YPSA and Bangladesh Representative of NGO Ship Breaking platform, Chittagong (Aug. 5, 2016) [hereinafter Ali Shahin Interview].

⁸ A US ship breaking yard in 2011 confirmed the cost of ship breaking as follows: War ship USD 900 to 1300 per LDT, Military vessel USD 300 to 700 per LDT and commercial vessel USD 100 to 500 per LDT. See Gopal Krishna Chowdhary, *An analysis of the creation of a global ship recycling fund in the framework of the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009*, WORLD MARITIME UNIVERSITY 54 (2011),

https://commons.wmu.se/cgi/viewcontent.cgi?referer=https://www.bing.com/&httpsredir=1&article=1101&context=all_dissertations (last visited Mar. 12, 2018) (MSc Thesis). According to the recent market, in 2017-2018, ships are sold by cash buyers in South Asian ship breaking yards at the rate on average USD 300 per LDT. See Xiaolin Zeng, *Ship scrap prices up on higher steel prices*, FAIR PLAY (Feb. 21, 2017), <https://fairplay.ihs.com/commerce/article/4282391/ship-scrap-prices-up-on-higher-steel-prices> (last visited Jan. 4, 2018).

Ship breaking was a highly mechanized industry until it piles up in South Asia in 1980s.⁹ Since the middle of 1980s, the southern region and peninsula of Asia has turned into the global epicenter of ocean-going ship recycling.¹⁰ Over 80 percent of obsolete vessels from around the world since 1980s has been sent only to three countries of South Asia namely Bangladesh, India and Pakistan.¹¹ The availability of cheap labor,¹² 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 poorer economies.¹³

Bangladesh, a newly transitioned developing country¹⁴ has been emerged as the market leader in ocean going ship recycling transforming the highest amount of recyclable tonnage from EOL vessels both in LDT measurement¹⁵ and in terms of number of ships dismantled annually.¹⁶ In 2019 Bangladesh has met almost half of the global demand for decommissioning of obsolete vessels.¹⁷ Notably, the predominant practice of dismantling ships in Bangladesh as

⁹ Muhammad Muhibbullah, 'Health hazards and risks vulnerability of ship breaking workers: A case study on Sitakunda ship breaking industrial area of Bangladesh', *Global Advanced Research Journal of Geography and Regional Planning*, vol.2, no.8, p. 173, Available from:

<http://www.shipbreakingplatform.org/shipbrea_wp2011/wp-content/uploads/2014/12/Health-hazards-and-risks-vulnerability-of-ship-breaking-works-Muhibbullah-Nov-2013.pdf > (accessed 4 July 2017)

¹⁰ Sohanur Rahman, *Aspects and Impacts of Ship Recycling in Bangladesh*, 194 *PROCEDIA ENGINEERING* 271 (2017), ScienceDirect (10th International Conference on Marine Technology, Dhaka, 2016).

¹¹ Nicola Mulinaris, *The toxic trade of obsolete ships*, *THE ECOLOGIST* (Oct. 15, 2018), <https://theecologist.org/2018/oct/15/toxic-trade-obsolete-ships>.

¹² *Id.*

¹³ In 1960 UK and USA was the market leader in ship recycling. See BRIGHT HUB ENGINEERING (2016),

<https://www.brighthubengineering.com/marine-engines-machinery/63667-marine-engineering-scraping-and-recycling-ships/> (last visited Feb. 4, 2018).

¹⁴ Bangladesh, 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),

<https://www.dhakatribune.com/bangladesh/2018/03/17/bangladesh-path-recognized-developing-country/>.

¹⁵ Syed Mansur Hashim, *A graveyard for ships and men*, *THE DAILY STAR* (Oct. 24, 2017), <http://www.thedailystar.net/opinion/no-frills/graveyard-ships-and-men-1480753>.

¹⁶ Anwar Hussain, *Bangladesh secures top position in ship breaking*, *DHAKA TRIBUNE* (Nov. 14, 2019),

<https://www.dhakatribune.com/bangladesh/2019/11/14/bangladesh-secures-top-position-in-ship-breaking> (last visited Apr. 20, 2020).

¹⁷ *Id.*

well as its other neighboring competitors, namely India and Pakistan is 'beach breaking' or 'beaching'.¹⁸

III. BEACH BREAKING OF SHIPS:

Ship breaking on the beach is a controversial¹⁹ and colossally dangerous cum pollutive activity.²⁰ Under this process, ships are driven full steam ahead towards the shore during high tide until it is grounded on the beach.²¹ Human causally and irreversible degradation of marine environment in South Asian beaches have been a common phenomenon in the current world order of shipping industries. Almost 700 lives have been sacrificed and 10,000 workers have suffered permanent disability only in Bangladesh in last three decades.²² In South Asia, the average rate of accident and death in their beach breaking sites have remained unchanged since last several decades.²³ There has been an urgent necessity to forge a global regime to jointly control all aspects of the industry.²⁴

IV. REGULATING GLOBAL SHIP BREAKING INDUSTRY:

After three decades of mobocracy 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 of International Maritime organization (IMO)²⁵ but the convention has failed to see the light of success because of the difficulty in fulfilling its three stage entry into force criteria. Due to this lop-sided

¹⁸ Henrik Hagberg Partner, *Scrapping of Ships, is Beaching Illegal?* THOMMESSEN (Nov. 14, 2018), <https://www.thommessen.no/en/news/scrapping-of-ships-is-beaching-illegal> (last visited Apr. 20, 2020).

¹⁹ Elin Saltkjel, Head of QA and Business Development, Grieg Green AS and Kan Matsuzaki, Director, Industry All Union, Interviewed by Author, 2020, ACI Ship Recycling Congress 2020, Amsterdam, The Netherlands.

²⁰ Greenpeace, *Shipbreaking: A Global Environmental, Health and Labor Challenge*, p 3

²¹ Mathesh B & Satheesh Babu P K, *Energy Consumption for Ship Dismantling through Beaching Method*, 1 IOSR J. OF MECHANICAL AND CIVIL ENGINEERING no.5 65 (2016), <http://iosrjournals.org/iosr-jmce/papers/ICETEM/Vol.%201%20Issue%205/56-64-67.pdf> (last visited Jan. 4, 2017).

²² Saiful Karim, *Violation of labour rights in the ship-breaking yards of Bangladesh: legal norms and reality*, 25 INT'L J. OF COMPARATIVE LABOR LAW AND INDUSTRIAL RELATIONS no. 4 380 (2009), HeinOnline (last visited July 5, 2016).

²³ *Ship Breaking-Recycling, Old Cruise Ships*, CRUISEMAPPEN ¶ 9, <http://www.cruisemapper.com/wiki/768-ship-breaking> (last visited Apr. 20, 2020).

²⁴ Puthucherril, *supra* note 3, at 52.

²⁵ IMO (2018), <http://www.imo.org/en/OurWork/Environment/ShipRecycling/Pages/Default.aspx> (last visited Jan. 4, 2018).

track record of history of shipbreaking the success of this convention now depends primarily on the policy choices of South Asian ship recycling nations.²⁶

According to the third entry into force criteria of the HKC, the combined maximum 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.²⁷ After India's ratification of the convention in December 2019, the current figure reflects 2.6%.²⁸ Based on the proven track record of history of ship recycling in last 40 years globally, it is gobsmackingly clear that the ball remains now in the court of Bangladesh who retains the key to the enforcement and success of this treaty.²⁹ This article will attempt to focus on the evaluation and critical analysis of the framework regulations on ship recycling of Bangladesh, the largest and the most dominant ship recycling state currently in the world, and assess the state's appositeness to accede to the global treaty on ship recycling at its current predicament of legislations.

VI. 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.³⁰ Bangladesh recently has designed its domestic framework regulation on ship recycling taking note of the HKC.³¹ These include Ship Breaking and Ship Recycling Rule 2011 (Herein after referred as the SBRR 2011) and Hazardous Waste and Ship Breaking Hazardous Waste Management Rule 2011 (Herein after referred as the HWR 2011). In 2018 Bangladesh adopted Ship Recycling Act that mostly deals with the constitution and operation of the regulatory board dedicated to administering the ship breaking industry in Bangladesh. The 2018 Act has created a statutory obligation for

²⁶ *Two Roads for Hong Kong Convention to Enter into Force*, THE MARITIME EXECUTIVE, (Mar. 31, 2019), (last visited May. 14, 2020).

<<https://www.maritime-executive.com/editorials/two-roads-for-hong-kong-convention-to-enter-into-force>>

²⁷ HKC art. 17.

²⁸ *India Ratifies Hong Kong Convention*, INDUSTRIALL ¶ 7 (2018),

<http://www.industrialunion.org/worlds-largest-shipbreaking-country-ratifies-hong-kong-convention> (last visited Mar. 11, 2020).

²⁹ Ishtiaque Ahmed, 'Hong Kong Convention and the Framework Legislations on Ship Recycling in Bangladesh: A Gap Analysis for the Purpose of the Effective Implementation of the Convention', (IMO Seminar on Ship Recycling and the Hong Kong Convention, Zhoushan, China, 23 -25 July 2019)

³⁰ Monira Munni, *Bangladesh Top Dumping Ground for Ships*, THE FINANCIAL EXPRESS (Feb. 7, 2020), <https://thefinancialexpress.com.bd/trade/bangladesh-top-dumping-ground-for-ships-1581051205> (last visited Apr. 20, 2020).

³¹ *The Ship Breaking and Ship Recycling Rules, 2011*, (Dec. 12, 2011),

[https://moind.portal.gov.bd/sites/default/files/files/moind.portal.gov.bd/legislative_information/52017f63_a708_40d2_a95a_529a01e9bb7c/SBSBR2011.compressed%20\(1\).pdf](https://moind.portal.gov.bd/sites/default/files/files/moind.portal.gov.bd/legislative_information/52017f63_a708_40d2_a95a_529a01e9bb7c/SBSBR2011.compressed%20(1).pdf)

(Government circulation no. 36.061.016.07.00.021.2010-106).

Bangladesh to develop capacity to conform to the provisions of the HKC within five years of the date commencement of this Act, in other words by 2023.³²

VII. SHIP RECYCLING REGIME IN BANGLADESH

'*Ship Breaking & Recycling Rule 2011*' (SBRR 2011) is 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 Management 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 shipbreaking industry and other industries in Bangladesh dealing with hazardous wastes.³³ In 2018, *Ship Recycling Act* (SRA 2018) was adopted by the Ministry of Industry but that Act mostly deals with allocation of plots between recyclers and constitution of the Ship Breaking Board (SBB) which is the Competent Authority for regulating shipbreaking activities in Bangladesh.

XII. THE SHIPBREAKING AND RECYCLING RULE 2011 (SBRR 2011):

a) *The Position of New and Existing Ship under SBRR 2011:*

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.

b) *The Uncertainty with Downstream Waste Management:*

The 2011 rule did not include the downstream waste management work as part of ship recycling activity.³⁴ When applying for a ship recycling facility plan (SRFP) under the rule, every ship recycling facility (SRF) must have an existing membership with a pre-registered treatment, storage, and disposal facility (TSDF) operator.³⁵ Currently, there is no TSDF facility authorized by the government of Bangladesh,³⁶ and according to recent SENSREC report more than 150

³² Bangladesh Ship Recycling Act, 2018 § 7.2.

³³ **HWR 2011 Rule 17.**

³⁴ *Id.* at Rule 2 (x).

³⁵ *Id.* at Rule 15.1 (b). Note that SBRR 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.

³⁶ Interview with Mizanur Rahman, National Project Manager, IMO SENSREC Project, Deputy Secretary, MOI, Dhaka, Bangladesh (Aug. 1, 2016).

SRFs have been authorized.³⁷ 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.³⁸

c) *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.³⁹ The SBRR 2011 without regard has used these keywords interchangeably.⁴⁰ Even the word ‘waste’ has got different meanings in different jurisdictions, and the international law is still struggling to settle this definitional issue.⁴¹ Apparently, the definition of ‘hazardous waste’ is far from settled in international law.⁴² SBRR 2011 essentially is a transnational law having a tremendous international impact and able to govern activities of international actors beyond the domestic territory.⁴³ An inconsistent use of core terminologies may likely to contribute to an irreconcilable transnational jurisprudence on the cross-border movement of goods, waste and hazardous waste alike.

d) *Ship Recycling Facility Plan (SRFP):*

The rule recognizes that the handling of asbestos is a major area of concern.⁴⁴ It requires all yard owners to construct ACM (Asbestos Containing Materials) and a negative pressure chamber.⁴⁵ However, it’s not mandatory for yards having asbestos containment capacity less than 100 metric tons.⁴⁶ A scrap ship on average contains 15,000 pounds (approximately seven and one half tons) of asbestos.⁴⁷ Depending on the size and capacity,

³⁷ Shahadat Hossain, M. Sharifuzzaman, & SR Chowdhury, *Environmental impact of the ship recycling industry in Bangladesh*, FINAL REPORT FOR IMO SENSREC PROJECT PHASE 1 11 (2016), <http://www.imo.org/en/OurWork/Environment/MajorProjects/Pages/Ship-recycling.aspx> (hereinafter IMO Environmental Impact Study SENSREC Project).

³⁸ 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.

³⁹ *Id.* at Rule 2 (xix).

⁴⁰ *Id.* at Rule 2 (xv).

⁴¹ Ahmed, *supra* note 86 at 440-442

⁴² *Id.*

⁴³ Carrie Menkel-Meadow, *Why and How to Study “Transnational” Law*, 1 UC IRVINE L. REV. no. 1 110-111 (2011), <http://www.law.uci.edu/lawreview/Vol1No1Articles/menkelmeadow.pdf>.

⁴⁴ SBRR 2011 Rule 16.1(x).

⁴⁵ *Id.* at Rule 18(iii).

⁴⁶ *Id.* at Rule 16.1(x).

⁴⁷ Syed Tashfin Chowdhury, *Graveyard shift: Dismantling toxic ships in Bangladesh*, INDEPENDENT (July 26, 2013),

<http://www.independent.co.uk/news/world/asia/graveyard-shift-dismantling-toxic-ships-in-bangladesh-8734375.html>.

See also ILO (2018), http://www.ilo.org/safework/info/WCMS_110335/lang--en/index.htm.

each yard in average dismantles up to three ships in a year.⁴⁸ On the other hand, hazardous waste cannot be stored in a facility more than ninety days after their production.⁴⁹ 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.⁵⁰ 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 use of manual labor the industry had been relying on since its advent in South Asia back in 1980s.

e) Authorization of Ship Recycling Facility:

A SRF before being authorized is required to submit an undertaking about its safety, health and environmental management system,⁵¹ its commitment to continuous improvement,⁵² identification of rules and responsibilities of the personnel engaged in it,⁵³ and emergency preparedness⁵⁴ or a system of monitoring the performance by safety officers.⁵⁵ 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.

f) 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.⁵⁶ The approval can be legally reinstated by addressing the shortcomings.⁵⁷ 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 CA (Competent Authority)

g) Import of End of Life Ships:

⁴⁸ Interview with Md Abu Taher, President of Bangladesh Ship Breakers and Recyclers Association (BSBRA), Zhoushan, China (July 25, 2019).

⁴⁹ HWR 2011 Rule 20(3).

⁵⁰ SBRR 2011 Rules 16.1(x), & 17.19

⁵¹ *Id.* at Rule 15.6.

⁵² *Id.* at Rule 15.6 (b).

⁵³ *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.

⁵⁴ *Id.* at Rule 15.6 (e).

⁵⁵ *Id.* at Rule 15.6 (f).

⁵⁶ *Id.* at Rule 15.4.

⁵⁷ *Id.*

An EOL ship often creates a situation of '*fait accompli*' on its arrival.⁵⁸ DOE apparently is in a better position to judge the issue of environment while issuing the NOC before it's imports but steered clear of such an important process by the 2011 rule. NGOs have adduced much evidence of fraud committed by cash buyers regarding pre-cleaning of ships before they are sent to Bangladesh.⁵⁹ There has been no attempt to incorporate that expertise in the policy making process by 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.⁶⁰

h) 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.⁶¹ As such, the rule permits the cleaning process to take place entirely on the beach.⁶² Similarly, except tanker, there is no requirement for the issuance of a gas-free certificate for hot work at anchorage.⁶³ Hence all these certifications and gigantic cleaning operations are not effectually prohibited to carry out on the intertidal part of the beach.

i) Ship Recycling Plan:

The Ship Recycling Plan (SRP) is a ship-specific document that covers the detailed planning and sequence of the cutting process.⁶⁴ This document is prepared by yard owners based on the information on hazardous materials supplied by the Master of the vessel.⁶⁵ 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-reversible process,⁶⁶ 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. 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.

⁵⁸ SS Norway.

⁵⁹ Rizwana Hasan, *Corporate Crime & State Responsibility The Case of Ship Breaking*, UNTNC 15-17 (Oct., 2016), <http://www.ohchr.org/Documents/HRBodies/HRCouncil/WGTransCorp/Session2/PanellIIISubtheme2/RizwanaHassan.pdf>.

⁶⁰ Jago News desk, *HC bans breaking MT Producer ship over radiation fear*, JAGONEWS24.COM (Aug. 29, 2017), <https://www.jagonews24.com/en/national/news/29839>.

⁶¹ SBRR 2011 Rules 12, 10.1, 16, 7(a), 19(b), Annexure III.

⁶² *Id.* at Rule 10.1.

⁶³ *Id.* at Rule 9.8, Annexure II.

⁶⁴ *Id.* at Rule 16.

⁶⁵ *Id.* at Rule 16.1(ii).

⁶⁶ SBRR 2011 Rule 6.

j) *Safe System of Work:*

The workplace at the ship recycling yards offers some unique challenges. Unlike ship building, there appears no commitment to profit by the skill of naval architects likely to employ scientific method in ship recycling.⁶⁷The myriad of circumstances in which the workers discover themselves while dismantling of ships often poses unreasonable risk-taking, seen from any objective standards. Moreover, the rule requires the cranes to be tested on regular intervals and constant supervision is required to be provided while heavy loads are lifted by cranes.⁶⁸ Unfortunately the rule is silent as to 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.⁶⁹

XIII. 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 establishment⁷⁰ as well as a factory where production process is carried on.⁷¹ This Act applies to the ship breaking workers.

a) *Conditions of Employment:*

The 2011 rule imposes considerable penalty upon the yard owners for engaging uncertified workers⁷², women workers,⁷³ and workers below eighteen.⁷⁴ The same rule applies to the workers supplied by contractors.⁷⁵ 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,⁷⁶ which in the ship breaking

⁶⁷ K. S. Iqbal et al., *An Approach to Safer Ship Breaking: The Role of Naval Architects*, DEPARTMENT OF NAVAL ARCHITECTURE AND MARINE ENGINEERING BANGLADESH UNIV. OF ENGINEERING AND TECHNOLOGY (Jan. 17, 2012),

<https://name.buet.ac.bd/ShipBreakingandRecyclingSeminar17012012.pdf>

(Seminar on Ship Breaking and Ship Recycling in Bangladesh and Compliance with International Regulations).

⁶⁸ SBRR 2011 Rule 17.19(f).

⁶⁹ Only used at the yard gate for loading of processed scrapped metal over the truck.

⁷⁰ Bangladesh Labor Act 2006 [hereinafter LA 2006] § 2(61)(i),

http://bdlaws.minlaw.gov.bd/bangla_sections_detail.php?id=952§ions_id=29070.

⁷¹ The requirement is satisfied if the facility uses at least five workers on any day of the year.

⁷² SBRR 2011 Rule 46.

⁷³ *Id.* at Rule 45.5.

⁷⁴ *Id.* at Rule 46.4.

⁷⁵ *Id.* at Rule 17.1.

⁷⁶ LA 2006 § 161,

http://bdlaws.minlaw.gov.bd/bangla_sections_detail.php?id=952§ions_id=29400.

sector is mostly the contractors.⁷⁷ Under the recent amendment of the Labour Act 2006, establishment of any contractor and subcontractor engaged in shipbreaking is also a separate and independent industrial organization⁷⁸ 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.⁷⁹ 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.⁸⁰ The remedy of workers for compensation on death and injury may practically lie in most cases to the contractors only.⁸¹ 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 2006.⁸²

b) Child and Adolescent Work:

Under the LA 2006, there is a complete prohibition of child labor in any industry in Bangladesh.⁸³ However adolescents can be recruited unless a medical certificate or birth certificate is kept in the custody of the employer,⁸⁴ and the adolescent must be supervised by a competent person at work.⁸⁵ Hazardous activities in Bangladesh are listed by the government time to time by gazette notifications.⁸⁶ Ship breaking has been classified as one of the hazardous activities vide Sec 68 of the Labor Rule 2015.⁸⁷ Under the SBRR 2011, the recruitment of both child and adolescent has been completely prohibited⁸⁸ also included are

⁷⁷ Almost all workers are recruited by the contractors on day basis. See SHIP BREAKING BANGLADESH (2012), <https://www.shipbreakingbd.info/overview.html>.

⁷⁸ LA 2006 § 2(61) Labor Act (Amendment) (2013), http://bdlaws.minlaw.gov.bd/bangla_sections_detail.php?id=952§ions_id=29070.

⁷⁹ Bangladesh Labour Rules 2015 [hereinafter BLR 2015] Rule 10.4.

⁸⁰ *Id.*

⁸¹ 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.

⁸² 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.

⁸³ LA 2006 § 34 (1), http://bdlaws.minlaw.gov.bd/bangla_sections_detail.php?id=952§ions_id=26435.

⁸⁴ *Id.*

⁸⁵ *Id.* at § 40.1, http://bdlaws.minlaw.gov.bd/bangla_sections_detail.php?id=952§ions_id=26441.

⁸⁶ *Id.* at § 39 (1), 39 (2), http://bdlaws.minlaw.gov.bd/bangla_sections_detail.php?id=952§ions_id=26440.

⁸⁷ BLR 2015 § 68.

⁸⁸ SBRR 2011 Rule 46.4. The Majority Act of 1875 Bangladesh describes a person to be a child below 18 years.

women workers.⁸⁹ 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.⁹⁰ This is a considerable amount in the economic market of Bangladesh given child labor and adolescent work are ubiquitous in Bangladesh with no practical barrier in the field.⁹¹ The extreme poverty connected to family backgrounds having no social security from the government prevents these laws from being enforced strictly.

c) *Workers Union:*

Under the LA 2006, there is no 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.⁹² 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 law⁹³ 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.⁹⁴ 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.⁹⁵ It has oftentimes been reported that employees have been persecuted personally by deploying police to their residence.⁹⁶

In fact, the contracts of the contractors with the yard owners often do not last long and mostly ship specific.⁹⁷ A meaningful trade union in such a bizarre circumstance is virtually unimaginable. It appears that government has traditionally attempted to use

⁸⁹ *Id.* at Rule 46.5.

⁹⁰ *Id.* at Rule 46.4.

⁹¹ UNICEF, *Child Labor in Bangladesh*, ¶ 2 at 2, http://www.clu-mole.gov.bd/img/pdf_file/dfb80c434ccef8400e70c78f85c6e5a2.pdf (last visited Apr. 18, 2020).

⁹² *Id.* at § 179(2).

⁹³ *Id.* at § 192, 233.

⁹⁴ Interview with Rizwanur Rahman Khan, Joint Secretary General, Bangladesh Free Trade Union Congress, Chittagong, Bangladesh (Aug. 5, 2016) [hereinafter Rizwanur Rahman Interview].

⁹⁵ ILO (2018),

http://www.ilo.org/global/about-the-ilo/newsroom/statements-and-speeches/WCMS_218067/lang-en/index.htm. See also UN Agency news, *Revised Bangladesh labour law 'falls short' of international standards*, UN NEWS (July 22, 2013), <https://news.un.org/en/story/2013/07/445222-revised-bangladesh-labour-law-falls-short-international-standards-un-agency>.

⁹⁶ Annual Public Report *supra* note 191.

⁹⁷ Interview with AM Nazim Uddin, Joint Convener, Bangladesh Institute of Labour Studies Chittagong, Chittagong, Bangladesh (Aug. 5, 2016).

the power of lawmaking and the instrument of law to maintain a status quo thereby legalizing the vulnerable position of the workers.

XIV. ENVIRONMENTAL COMPLIANCE AND MONITORING :

The Department of Environment is entrusted to issue a yard specific clearance; however, the rule did not make clear if it is compulsory to release a ship specific clearance before the beaching permission is granted.⁹⁸This silence in law has provided opportunities to the recyclers of ships arguing that under the current state of law no environmental clearance is necessary before beaching and recycling of ships.⁹⁹As a result, in a very few cases, the ship specific NOC is applied for by the yard owners.¹⁰⁰In some areas overlapping of responsibility between two departments of the government is apparent. For example, both the DOE and the SBB oftentimes have been entrusted with identical responsibility 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.¹⁰¹ In those circumstances, which department is primarily accountable to address those issues, has been a debatable issue. As an orange (B) category industry¹⁰² 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.¹⁰³ The same method of testing water and soil sediments does not appear to be suitable in the coast based industry working within semidiurnal 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 sea continuously. On the other hand, the SBB is required to carry out the same task of environmental monitoring independently through an industrial & scientific research lab.¹⁰⁴ The SBRR 2011 has imposed upon the CA a hard-hitting duty to evolve the beaching

⁹⁸ SBRR 2011 Rule 3.3.

⁹⁹ Mintu Chowdhury, *Bangladesh shipbreakers contend no need for environmental clearance*, BDNEWS24.COM (Nov. 7, 2016), <https://bdnews24.com/bangladesh/2016/11/07/no-need-to-environmental-clearance-say-ship-breakers-in-bangladesh>.

¹⁰⁰ *Id.*

¹⁰¹ SBRR 2011 Rule 18(viii).

¹⁰² MD. SAIFUL KARIM, *SHIPBREAKING IN DEVELOPING COUNTRY A REQUIEM FOR ENVIRONMENTAL JUSTICE FROM THE PERSPECTIVE OF BANGLADESH* 101 (Routledge, London and New York, 2017).

¹⁰³ 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), <http://bdpil.org/assets/uploads/pdf/c86f3-judgement-ship-breaking-7260-of-2008.pdf>.

¹⁰⁴ SBRR 2011 Rule 18(viii).

method into a complete pollution free venture with zero tolerance by ongoing environmental monitoring practice followed by scientific data analysis.¹⁰⁵ 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 workforce, testing equipment's, vessels, etc.¹⁰⁶ 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.

This HWR 2011 implements the Basel Convention in Bangladesh¹⁰⁷ however, unlike the Basel Convention, it applies to the entities dealing with the hazardous waste and hazardous materials alike.¹⁰⁸ 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.¹⁰⁹ There is no difference made in the content of the definition.¹¹⁰ Under the rule, the importer of the hazardous waste or material needs to ensure that actual product corresponds with the description in the document.¹¹¹ 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.¹¹² 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.¹¹³ 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.¹¹⁴ Basel Convention, on the other hand, makes such transaction a criminal offense.¹¹⁵ The Conference of the Parties (COP) of the Basel Convention has declared the EOL ship as a hazardous waste in its integral form,¹¹⁶ 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

¹⁰⁵ *Id.*

¹⁰⁶ *Id.* at Rule 18(vii).

¹⁰⁷ HWR 2011 Rule 17.

¹⁰⁸ *Id.* at Rules 2(28), 2(30).

¹⁰⁹ *Id.* at Rule 5.

¹¹⁰ 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.

¹¹¹ HWR 2011 Rule 5(a).

¹¹² *Id.* at Rule 18(1)(a).

¹¹³ *Id.* at Rule 18 (2).

¹¹⁴ *Id.* at Rule 18(3).

¹¹⁵ Basel Convention art. 4.3.

¹¹⁶ 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.

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 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 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.

XVI. 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 SBB might ask for rectification without any sanction for past wrongful action.¹¹⁷ In contravention to any provision of the SBRR 2011, the standard sanction remains the suspension of yard activities.¹¹⁸ 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.¹¹⁹ 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 casualty, 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 for violations such as using uncertified workers,¹²⁰ women,¹²¹ and workers below eighteen,¹²² allowing the workers to work at a height after the sunset¹²³ and false declaration made by the shipowners about hazardous waste that subsequently found unmanageable.¹²⁴ 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

¹¹⁷ SBRR 2011 Rule 46.7.

¹¹⁸ *Id.* at Rule 17(14) (iii).

¹¹⁹ *Id.* at Rule 46.9.

¹²⁰ *Id.* at Rule 46.3.

¹²¹ *Id.* at Rule 46.5.

¹²² *Id.* at Rule 46.4.

¹²³ *Id.* at Rule 46.10.

¹²⁴ *Id.* at Rule 46.12.

to proving negligence.¹²⁵ There is no concept of strict liability or gross negligence or corporate manslaughter known in SBRR 2011. It also appears that an injury below than permanent disability is not actionable per se either in 2011 Rule or in the 2018 Act. Apparently, all these punishments are restricted to mere financial penalties that do not seem to be proportional to the offense and quite insufficient to discourage violations as required by the HKC.¹²⁶

XVII. CONCLUSION:

Several advanced legal weaponries are available to the workers but the temporary nature of job in shipbreaking industry in Bangladesh has made it difficult for them to receive 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. Notably, the shipbreaking regime appears to be more flexible than other hazardous waste regimes in Bangladesh subject to 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 the sanction for violation do not reflect many realities on the ground and quite inefficient to demonstrate any retributive or compensatory effect for violations. Keeping all these fundamental issues outstanding, the contribution of the framework regulations of Bangladesh on ship recycling seems too little too late to ensure a safe, environmentally sound and sustainable ship recycling industry in this preeminent ship recycling state. With so many inherent deficiencies prevailing in domestic regulations couple with no clear means of funding, to what extent the intended ratification of the Hong Kong Convention by Bangladesh would bring an effective solution to the global problem remains thoroughly questionable.

¹²⁵ *Id.* at Rule 45.3.

¹²⁶ HKC art. 10.3.

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