A CRITICAL ANALYSIS OF RECYCLING OF SHIPS ACT, 2019 AND THE IMPLICATIONS OF THE SAME ON SHIP RECYCLING IN INDIA

By Amruth Anand
From School Of Law, CHRIST (Deemed to be University)

Abstract
The Hong Kong International Convention for The Safe and Environmentally Sound Recycling of Ships, 2009 was the first attempt to formalise the ship recycling industry and lay down norms to regulate the same. The convention attempts to bring into effect the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal and, labour, regulatory and health and safety norms. India, being a major player in this industry, was a party to this convention from its inception, however, the ratification of the same has only been with the Recycling of Ships Act, 2019. This paper attempts to analyse this legislation and the impact that it will have on the Indian shipbreaking industry. In furtherance of the same, certain shortfalls, such as the prolonged use of beaching as a method of recycling and the impact that the legislation will have on the same will be addressed. Considering bulk of India’s ship recycling takes place in the state of Gujarat, the Act shall also be analysed in context with various by-laws by the Gujarat maritime board and other nodal agencies. In the concluding remarks, the author shall attempt to bring out the true implications of the Act on the industry and the effect it will have on India being an important centre for this industry.

This paper is an original work and is not under consideration elsewhere.

INTRODUCTION
The world’s fleet of ships at the end of December 2016 was 113,888 ships totalling 1,248,583,186 GT¹. An average of 10% of these ships reach the end of their service life every year. The ship recycling industry is one that is thriving off this industry. Countries like India, Pakistan and recently Bangladesh have been the focal points of the shipbreaking industry. Ships at the end of their life cycles are usually sent to these countries to be broken down into scrap steel and in certain cases, entire local economies are based off the ship recycling yards that dot the coastlines of these towns and cities.

Ship recycling has often been defined as “recycling core-based ocean-going vessels for steel and other materials”². Though terms such as shipbreaking³ and ship dismantling⁴ have been used interchangeably for the same purpose, it has often been argued that mere ship breaking and ship dismantling only refer to a certain overt act that reduce the superstructure of the ship into scrap. The more inclusive term of ship recycling according to the IMO 2012 Guidelines for Safe and Environmentally Sound Ship

³ Used by the International maritime organisation
Recycling involves a process the equipment and materials from decommissioned vessels are either directly reused or recycled. This can include all materials that are form part of the vessel, including bunker fuel, usually sold to rolling mill and brick kiln furnaces, appliances sold in local markets and the superstructure itself being sold off as scrap steel.

the word Alang is synonymous with shipbreaking, with over 95% of the ships recycling in India being done in this 10km stretch in Gujarat. The Alang- Sosiya yards located about kilometres from the city of Bhavnagar in Gujarat on the gulf of cambay currently have over 180 recycling yards with a total capacity of 3.5 million tonnes a year. The importance of India as a hub for shipbreaking is one that is contentious. The subcontinent, comprising of the three countries mentioned above are in competition for the larger share of the ship recycling pie and Alang in India has faced stiff completion in recent years as a major destination for shipbreaking.

THE HONG KONG CONVENTION

5 IMO Guidelines for safe and environmentally sound ship recycling MEPC.210(63) (2012)

It is in this backdrop that the Hong Kong convention comes into play, beginning with the IMO notifying in its Marine Environment Protection Committee, concern on the environmental impacts of the ship recycling industry. The environmental impacts became a grave concern considering the levels of pollution that were reaching concerning levels. This prompted the 44th session of the MEPC to set up a working group to assess the situation the MEPC took stock of the situation and came up with the Hong Kong convention lays down the procedural requirements to be followed for the authorisation of ship recycling facilities and the survey and certification of ships. the convention is spread over 4 chapters consisting of 25 regulations and 21 Articles and 7 appendices. At its core, the convention lies the ship recycling plan (SRP) ship recycling facility plan (SRFP) which are to be submitted to domestic authorities. The implementation of these is dependent entirely on the guidelines by individual states. The general obligations imposed by the convention are to be given effect in the national legislations of the state. These obligations take the form of regulations to

10 Hong Kong Convention, supra note 10 at Art. 6
11 Hong Kong Convention, supra note 10 at Art. 5
12 Hong Kong Convention, supra note 10 at Art. 4
14 Hong Kong Convention, supra note 10 at Art.1.1
minimise adverse effects on human health and the environmental impact of ship recycling.\textsuperscript{15} Further, the method used for ship recycling has been left to the state parties, with the only condition being that the method used is ‘safe and sound’\textsuperscript{16}

**SHIP RECYCLING IN INDIA**

In the year 2006, a decommissioned French aircraft carrier ‘the Clemenceau’\textsuperscript{17}, that was alleged to be carrying large quantities of toxic waste, was sent to be recycled in India. Subsequently a petition was filed by the NGO Greenpeace\textsuperscript{18}, which resulted in the case of Research Foundation for Science, Technology and Natural Resource Policy v. Union of India\textsuperscript{19}, where the court barred the entry of the ship to India until further orders. However, the French government latter recalled the ship.\textsuperscript{20}

The issue however, resurfaced in the case Research Foundation for Science, Technology and Natural Resource Policy v. Union of India\textsuperscript{21}, which was a case concerning a French cruise liner. While recognising the precautionary and polluters pay principles, the court held that the ship could be dismantled in Alang in India, based on the reasoning that the economic benefits far outweighed the environmental costs\textsuperscript{22}. This part of the judgement received heavy criticism from environmental activists,\textsuperscript{23} however, the judgement also ordered the government to frame a comprehensive regulation for the shipbreaking industry\textsuperscript{24}. Emphasis was laid on this code to make beaching as method of shipbreaking safe\textsuperscript{25} and a bespoke ship recycling plan that specifies the procedure for breaking.\textsuperscript{26}

### Shipbreakers Code Of 2013

The first attempt at having a regime for ship recycling in India was made vide the Shipbreaking code of 2013\textsuperscript{27}. The code provides for a step wise process that was inclusive of all processes that involve the ship to be turned into scrap. The code focuses on environmental concerns, specifically related to beaching a method of shipbreaking. Provision include clearances that are to be obtained from state maritime boards or port

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\textsuperscript{15} Hong Kong Convention, supra note 10 at Art 14
\textsuperscript{16} Hong Kong Convention, supra note 10 at Reg. 17
\textsuperscript{19} Research Foundation for Science, Technology and Natural Resource Policy v. Union of India, WP (C) No. 657 of 1995 (India)
\textsuperscript{22} Id para 10
\textsuperscript{23} Frederico Demaria, Shipbreaking at Alang (Sosiya): An Ecological Distribution Conflict, Ecological Economics 9 (2010).
Further clearances are to be obtained from the state pollution control board, Central Board of Indirect Taxes and Customs (CBIC), the atomic energy commission and the petroleum and energy safety commission depending on the type of vessel. The code, in compliance with the supreme court’s directions provided for the formulation of the Ship Recycling Facility Management Plan (‘SRFMP’) and the Ship Specific Recycling Plan (‘SSRP’). These plans may, in the event of noncompliance be rejected by the relevant authorities, if they do not meet the necessary compliance standards. Basic facilities to ensure health and safety of the workforce is also to be ensured, in particular, entry into enclosed areas of the ships are to be accessed only using adequate breathing apparatus. The code also provides for a mandatory implementation of a Occupational Health and Safety (‘OSH’) system who’s aim is to prevent work-related injuries. Other provisions ensuring labour safety however, are imported from existing legislation such as Employees State Insurance Corporation or Workmen Compensation Act and the factories act. The code was however not free of concerns and legislative loopholes. There were concerns that were raised where even after the code coming into being, ships were still being illegally broken down at the Alang, either through forged documentation or improper verification. Further criticism of the code stems from the fact that no certification of decontamination has been sought by the code, which is a requirement under the Basel convention.

**THE RECYCLING OF SHIPS BILL, 2019**

**Introduction**

The Hong Kong convention was finally converted into legislation, in the form of the Recycling of Ships Bill, 2019 which was passed by the Indian legislature on 13th December of 2019. This paper aims to critically analyse the act that has been passed and draw out the implications that this legislation will have on the shipbreaking industry in India.

The importance of the bill cannot be understated, and in the words of The Minister of State of The Ministry of Shipping and Minister of State in The Ministry of Chemicals and Fertilizers, Shri Mansukh L. Mandaviya, who in his introduction to the bill in the Lok Sabha on 3rd December 2019 who said:

“Ship recycling and ship building is an important aspect of Indian Maritime history. In the Ship Recycling Bill, we have included all the subjects right from the ones covered in ship building to its breaking world over. Every year as many as one thousand ships are placed for ship breaking world over. All

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29 The Shipbreaking Code, 2013, Section 3.4.2, Section 4.1.3  
30 The Shipbreaking Code, 2013, regulation 5.2  
31 The Shipbreaking Code, 2013, §§3.3.3, ¶4.1.4.  
32 The Shipbreaking Code, 2013, section 7.15  
33 The Shipbreaking Code, 2013, section 6.2  
36 Basel Convention, Art. 4(2)(d). See also Basel Convention, Art. 4(2)(e)
of them are recycled. Out of them three hundred ships are subjected to breaking in India. To date the entire exercise of ship breaking is being undertaken acting along the guidelines issued by the hon. Supreme Court in the year 2013. Secondly, International Maritime Organisation had made a framework for the recycling of ships by passing a Hong Kong convention in the year 2009. Compliance of the provisions made in the framework concerned ship recycling industry of India is likely to be enhanced. Today, we have brought in Ship Recycling Bill in order to ratify Hong Kong Convention and to adduce a legislative form to the guidelines issued by the Supreme Court."

The ship recycling act has been divided into 10 chapters and 49 sections that attempt to encompass the Hong Kong Convention. The legislation is still in its infancy and it is clear from its preamble that it intends to enforce and ratify the Hong Kong convention in the Indian context. The bill, under its ambit covers ships that have been registered in India, ships which required to be registered in India, any ships entering a port of terminal in India, warships and other ships operated by government services and ship recycling facilities that are located in India. The legislation provides for ships to be recycled and dismantled only in authorised ship recycling facilities, which are to be certified by the relevant authority. Using the Hong Kong Convention as a basis, the act provides a procedure for the certification and survey of individual ships by providing comprehensive ship recycling plan (SRP). The process of ship recycling itself is provided by section 2 (n) of the act which provides:

“ship recycling” means the activity of dismantling of a ship at a ship recycling facility in order to recover components and materials for reprocessing and reuse, while taking care of hazardous and other materials and includes associated operations such as storage, treatment of components and materials on site, but not their further processing or disposal in separate facilities

Emphasis is laid by the act on hazardous materials present inside the ship. The law restricts the usage and installation and usage of hazardous materials on the ship, and in the event that the same is present, an inventory of the same is to be maintained. The obligation is placed on the owner of a new ship to procure a certificate on inventory of hazardous materials, based on a survey conducted by a national authority under section 7 of the act within 5 years. The Act also sets up A National authority, which will undertake both survey and certification of ships for recycling. The Director

37 LOK SABHA SYNOPSIS OF DEBATES (Proceedings other than Questions & Answers) Tuesday, December 3, 2019
38 Vide powers granted to it under ARTICLE 51 of the constitution
39 The Recycling of Ships Act, 2019, No. 361 of 2019, Section 1(3)(a),
40 The Recycling of Ships Act, 2019 Section 1(3)(b)
41 The Recycling of Ships Act, 2019 Section 1 (3)(c)
42 The Recycling of Ships Act, 2019 Section 1 (3)(d)
43 The Recycling of Ships Act, 2019Section 1 (3)(e)
44 The Recycling of Ships Act, 2019, Section 16
45 The Recycling of Ships Act, 2019 Section 7
46 As Defined under section 2 (p) of the of Recycling of Ships Act, 2019
47 The Recycling of Ships Act, 2019, Section 6
48 The Recycling of Ships Act, 2019, Section 8.
49 The Recycling of Ships Act, 2019, Section 6.
50 The Recycling of Ships Act Section 3
51 The Recycling of Ships Act Section 7(1)
52 The Recycling of Ships Act Section 7(2)
General, Shipping has been named the national authority for the purposes of this act.\textsuperscript{53}

Following the convention’s emphasis on environmentally sound practices, the act provides for conditions for safe and environmentally sound management of hazardous waste\textsuperscript{54}. Emesis is laid on sound labour practices, however, like its predecessor, existing laws have been supplemented to operate under the act. The obligation to ensure safe working conditions are still however covered by the act.\textsuperscript{55}

**CHALLENGES FACED BY THE ACT**

The recycling of ships act, 2019 was undertaken to ensure that India completes its process of ratification of the Hong Kong convention. however, the legislation leaves a great deal to be desired and leaves many major issues plaguing the ship recycling industry in India unaddressed.

**Beaching as A Method of Recycling**

Beaching as a method of shipbreaking where the vessel is driven into the existing beach, either on its own power or with the help of winches. as the tide recedes, the ship is slowly pulled closer ashore. re-useable equipment and machinery is stripped from the ship, after which, oils and hazardous chemicals are removed from the ships. finally, the superstructure of the ship is cut using gas torches and saws by hand.\textsuperscript{56} It must be noted that this entire process takes place on the beach and is hence is extremely hazardous to the surrounding environment. According to the European commission

"an average of 400,000 to 1.3 million tonnes of toxic materials on board end-of-life vessels, including up to 3,000 tonnes of asbestos and 6,000 to 20,000 tonnes of harmful paints, is exported each year to developing countries from the EU"\textsuperscript{57}

Further studies indicate the level of asbestos and TBTs in the soil are 100 million times above the permissible limit\textsuperscript{58}, while affecting Zooplankton populations and resulting in adverse health effects to both local populations and the workforce.\textsuperscript{59} Certain hazardous substances that are contained in the innards of the ship cannot be cleaned in advance and hence will result in the same having to be cleaned by the recycling yard, adding to the complexity of the challenge.

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\textsuperscript{54} The Recycling of Ships Act, Section 13

\textsuperscript{55} The Recycling of Ships Act, Section 15

\textsuperscript{56} Upadhyay, Ghanshyam B.A, Study on The Problems and Prospects of Ship Breaking Industry in India With Reference to Alang Ship Breaking Yard, Maharaja Krishnakumarsinhji Bhavnagar University, http://hdl.handle.net/10603/89552

\textsuperscript{57} European Commission: Impact Assessment for an EU Strategy for better Ship Dismantling, SEC (2008)2846


One of the greatest criticisms of the Hong Kong Convention at large and the ship recycling act of 2019 in particular is that it does not do away with beaching as a method of shipbreaking. The convention and subsequently the 2019 act do attempt to partially address this concern by banning hazardous materials being used during the building of new ships. However, considering the lifespan of a ship is between 20 to 30 years, and recycling activities are undertaken only after the full-service life of the ship. The shipbreaking code of 2013, attempted to mitigate the problem by providing for stage wise beaching regulation, however, this finds no place in the 2019 Act.

Polluter Pays Principle.
The polluter pays principle, a recognised doctrine in India was recognised in the case of Indian Council for Enviro-Legal Action vs. Union of India and reiterated in the case of M. C. Mehta vs Kamal Nath & Ors, provides that the entity that has caused the pollution will be ultimately responsible for the same. The recycling of ships act, 2019, and the convention at large does not seem to address this aspect. It must be noted that as per section 22 of the act, the owner of the ship is to provide for a clean certificate from the flag state. No further obligation is cast upon the owners with respect to the materials that might be contained in the vessel. Further, it is the recycling state that usually deals with the issues of disposing off the wastes that are in the holds of the vessel. There is no responsibility on the polluting state or the owner to ensure compliance for the same. The act also does not address the obligations placed by the same. Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal, 1989. The convention provides for a ‘prior informed consent’ where the sending state has to receive a consent in writing from the receiving state, if any hazardous waste is being sent out. The ship recycling act, and the Hong Kong Convention makes no mention of the above aspect, thus grossly violating the polluters pay principle, that has been upheld in India. this lack of oversight, combined with the problem of beaching further aggravates the environmental impact of shipbreaking in the recycling state.

Labour and Employment Concerns
The act leaves the compliance of labour provisions to individual ship recycling facilities and vide section 15 Of the act lays the obligation to provide for ‘safety, health, training and welfare’ in the hands of the shipbreaker. For all further obligations, the provisions of the factories act, 1948 is to apply. In an industry as dangerous as the shipbreaking industry, these measures are woefully inadequate. It must be noted here that the 2013 shipbreaking code has more detailed provisions on the labour welfare initiatives to ensure the safety of the workforce including provisions for better

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60 The Recycling of Ships Act, Section 8
62 Indian Council for Enviro-Legal Action vs. Union of India 1996(3) SCC 212
63 M. C. Mehta vs Kamal Nath & Ors (1997) 1 SCC 388
64 The Recycling of Ships Act Section 22
66 Basel Convention, Art. 4(1)(c).
67 The Recycling of Ships Act Section 15
68 The Recycling of Ships Act Section 15
training, equipment and maintained of records.

Although the factories act contains provisions that ensure the protection of workers in an industrial setting, other significant labour legislations have been neglected by the act. Chiefly among these acts are the legislations Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979 and the legislations Trade Unions Act, 1926. The principal workforce, at India’s largest shipbreaking facilities in Alang employ over migrant workers 35000 workers. This problem is compounded by the fact that most shipowners hire contractors, who in turn hire labour on a casual basis, depending on the availability of work. This helps most shipowners to circumvent labour legislations. Usually, these workers do not have a contract of employment and are at the mercy of the shipowners requiring their services. Migrant workers form a major part of the workforce in these yards, and with the migrant workers act not being able to apply to them, it creates avenues for exploitation.

Working conditions in the yard often do not provide for social security measures. This is in addition to there existing no job security. The lack of any measures of collective bargaining and unionisation has only added to the woes of the workers. The ship recycling act, by not including the above legislations has not adequately addressed the needs of workers either.

IMPLEMENTATION

The Act heavily relies on local maritime boards to ensure compliance with the provisions of the act. Considering the importance of the Alang ship recycling yards, the principal maritime board would be the Gujarat Maritime Board (GMB)

Being the regulator of the most prominent shipbreaking yard in the country, the GMB’s regulation of the Alang yards predates the recycling of ships act. Vide powers under the country, Gujarat Maritime Board Act, 1981 is a legislation that undertakes the granting of permission for a ship recycling plan, beaching, and regulations for safe management of waste. Further, the GMB, in its Gujarat Maritime Board (Conditions and Procedures for granting permission for Utilizing Ship

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69 The Shipbreaking Code, 2013, 6.1
70 The Shipbreaking Code, 2013 6.3
Recycling Plots) Regulations, 2015\textsuperscript{76} provides for penalties for undertaking ‘wrongful beaching’\textsuperscript{77} and a penalty of rupees 15 lakh in imposed on default. Waste recycling for hazardous waste coming from recycled ships have now been brought under the Gujarat Enviro Protection and Infrastructure Private limited (GEPIL)\textsuperscript{78}

Therefore, it must be noted that the GMB already had in place various reforms that the act has brought in with the existing bureaucratic framework, it will become easier for the implementation of the act in the major ship-recycling facilities in Alang. The establishment of a national authority, i.e. The DG, Shipping can work closely with the GMB in order to ensure implementation of the act. It must note here that most of the functions performed by the GMB, now under the 2019 act are to be performed by the DG shipping, this can create bureaucratic bottlenecks and might make for a more ambiguous process of approvals for recycling.

**CONCLUSION**

The steps taken by the act is indeed commendable, however it does leave certain areas ambiguous and does not address certain environmental and labour standards that have been envisioned, not just by the convention but by the industry at large. The act could have been a one stop legislation that could have resulted in not only ensuring that India could have complied with the euro standards for shipbreaking, but could have also been a forerunner in ensuring global standards for ship recycling. An attempt could have been made to address the shortcomings of the Hong Kong convention and ensure that greater standards are met.

The alternative to beaching is the method of Dry Docking, where ships are dismantled in a secluded concrete enclosure, with minimal exposure.\textsuperscript{79} This can ensure that hazardous waste can be contained and effectively disposed of. the Recycling of ships act could have undertaken a more holistic approach to the process of shipbreaking by involving greater vigilance mechanisms. It must be noted in this regard that dry docking is inherently a more expensive process and the full-scale implementation of the same in India can lead to the unforeseen consequence of the economic incentive of India as a shipbreaking destination be challenged. It is the process of beaching that makes shipbreaking in Indian yards competitively priced. Greater regulation under the act to ensure that more environmentally sustainable methods for removal and disposal of Hazardous wastes, while continuing to use the beaching method will be the best way forward.

The inclusion of trade unions and a greater level of organisation in the workforce can lead to safer working conditions in what is already one of the most dangerous industries. In itself can go a long way in ensuring that

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\textsuperscript{77} Id. At 76 Chapter 8

\textsuperscript{78} Appendix 1 Inspection of A Ship Recycling Facility in India Site Inspection Report Application 003

\textsuperscript{79} Occupational Safety & Health Administration (OSHA), Process: Dry-Docking and Launching, available at https://www.osha.gov/SLTC/shipbuildingrepair/drydocking.html
the shipbreaking yards have more humane conditions. The implementation of existing labour standards, that are present in other sectors can ensure that workers are not exploited.

It must be considered that the ship recycling act of 2019 could have implications that cannot be predicted in the immediate future. While the various environmental standards sought by the legislation can certainly see improvement and certain labour standards being lax are certainly lacunae that need to be addressed. However, to dismiss the act as a complete failure would be a gross misstatement. The Act has been successful in fulfilling its objective in ensuring that India has ratified the Hong Kong Convention, it would not be fair to hold the legislation to the shortcomings of the convention that it was intended to ratify. The act would ensure that India, by becoming a member of the Hong Kong Convention becomes a more desirable destination for ship recycling.

The COVID-19 pandemic too has resulted in an economic situation, where ship owning companies have seen it fit to recycle older vessels (especially cruise liners, due to low demand) and therefore a surge in the ship being sent in for recycling was seen in the months following the pandemic. This coupled with the Indian government’s decision during the Budget 2021 to double India’s shipbreaking capacity by 2024 foresees a bright future for the industry. However, it remains to be seen if the recycling of ships act lives up ensuring safe recycling of ships on the Indian coastline.

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