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Ship recycling in India- environmental stock taking

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ABSTRACT

The ship recycling industry has grown over the years, and it has become a major source of revenue for some developing states. Grave occupational and environmental problems have been associated with the industry during its growth in such countries. Due to growing occupational and environmental concerns, the International Maritime Organization adopted the Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ship in 2009. This paper examines the existing shipbreaking regime in India, to determine, if the Recycling Act, 2019 contributes anything new to the existing framework, in terms of environmental protection. Even though the Act is a positive step towards making the ship recycling industry greener in India, a lot depends on the regulation and rules that may be developed to complement the Act. Therefore, its long-term benefits to the environment will have to be revisited.

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Introduction

The ship recycling industry has grown over the years, and it has become a major source of revenue for some developing states.¹ Grave occupational and environmental problems have been associated with the industry during its growth in such countries.² The European Commission published a report on ship recycling in 2016,³ underscoring the environmental issues at various ship-breaking yards around the world. This report paints a grim picture of environmental degradation around such yards, highlighting the fact that despite international efforts and various domestic legislations the problem persists.⁴ This is not the first time when the occupational and environmental problems of the shipbreaking industry have been brought forth. As a matter of fact, due to the growing concerns, the International Maritime Organization (“IMO”) adopted the Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ship in 2009

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¹Ninety percent of ship recycling is done in Bangladesh, China, India, Pakistan and Turkey. See International Labour Organization, ‘Ship-Breaking: A Hazardous Work’ <https://www.ilo.org/safework/areasofwork/hazardous-work/WCMS_110335/lang-en/index.htm> accessed 4 February 2022.

²*ibid.*

³Science for Environment Policy (SEP); Ship Recycling: Reducing Human And Environmental Impacts’ [2016] Issue 55, European Commission DG Environment by the Science Communication Unit, UWE Bristol <https://ec.europa.eu/environment/integration/research/newsalert/pdf/ship_recycling_reducing_human_and_environmental_impacts_55si_en.pdf> accessed 4 February 2022 (“SEP Paper”).

⁴*ibid.*, 4.

(“**Hong Kong Convention, 2009**”). The Hong Kong Convention, 2009, which has not entered into force yet, lays down international standards for the ship recycling industry. To boost its ship breaking industry and make the industry more appealing to ship owners in terms of occupational and environmental standards, India enacted the Recycling of Ships Act in 2019 (“**Recycling Act, 2019**”). This paper examines the existing shipbreaking regime in India, to determine, if the Recycling Act, 2019 contributes anything new to the existing framework, in terms of environmental protection. This paper is divided into four parts, excluding the conclusion. Part I explores the international shipbreaking obligations imposed on States. Part II deliberates on the status of law applicable to shipbreaking in India. Part III briefly underscores the salient features of the Recycling Act, 2019. Part IV embarks on a detailed analysis of how the Recycling Act, 2019 addresses or incorporates the three main environmental principles, namely, polluter pays principle, precautionary principle, and the concept of sustainable development. Based on the above, this paper concludes by giving some suggestions and observations to lawmakers who have a major task ahead of filling in the details, by enacting rules and regulations under the said Act, to make the environmental protection offered by the Act more meaningful.

Part I – Ship recycling and international regulations

IMO is a specialized agency of the United Nations, which sets the global standard for safety, security, and environmental aspects of international shipping. Environmental protection is one of the main objectives of the IMO, which is quite evident from the shipping-related instruments concluded and adopted under the auspices of the IMO.⁵ Environmental principles are heavily relied upon by IMO while international instruments are negotiated and once finalized by member states. This regulatory framework is universally adopted and implemented by member states. Since ship-breaking activities relate to international shipping, the IMO plays a major role in developing standards that need to be followed by the member states. Shipbreaking activities take place within the jurisdiction of states; therefore, the applicable domestic laws must align with the international standards set by the IMO. Considering this, it becomes imperative to start with the international framework applicable to shipbreaking activities, which member states need to adhere with. As pointed out above, the IMO adopted the Hong Convention, 2009 to address the “growing concerns about safety, health, the environment and welfare matters in the ship recycling industry”.⁶ In addition to laying down technical standards, the convention even spells out the relevant environmental rules and principles which need to be followed.⁷ India being a member of the IMO, is obliged to shape its domestic laws accordingly. Thus, we need to determine what specific international environmental instruments and obligations are applicable in this context.

⁵See, Micheal Tsimplis, *Environmental Norms in Maritime Law* (Edward Elgar 2021), 1; Tsimplis asserts that the “introduction of environmental norms and the development of maritime environmental laws became part of the IMO mandate only after catastrophic shipping incidents ...”.

⁶Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships 2009 (IMO Doc SR/CONF/45 (2009), 2013), 1 (“**Hong Kong Convention, 2009**”).

⁷Tsimplis (n 6) 160–163.

The Hong Kong Convention, 2009 attempts to “effectively address, in a legally-binding instrument, the environmental, occupational health, and safety risks related to ship recycling . . . ”.⁸ From a cursory perusal of the Hong Kong Convention, 2009; it becomes clear that the convention deals primarily with two aspects of ship recycling – first, environmental risk and, second, occupational health and safety risk. The Hong Kong Convention, 2009 specifically underscores the vital role of the Basel Convention on the Control of Transboundary Movement of Hazardous Waste and their Disposal, 1989 (“**Basel Convention**”) in ship recycling, emphasizing that the convention protects “human health and environment against the adverse effects which may result from such waste”.⁹ Further, the Hong Kong Convention, 2009 stresses that State parties must be “mindful of the precautionary approach set out in Principle 15 of the Rio Declaration on Environment and Development”.¹⁰ Considering various reports documenting the adverse effects of shipbreaking activities on the environment, an express mention to the precautionary principle seems prudent. Thus, states undertaking ship-breaking activities should adopt the precautionary approach, which is one of the universally accepted principles of international environmental law, applicable to activities that may adversely affect the environment.¹¹

The Hong Kong Convention, 2009 requires State parties to give “full and complete effect to its provisions in order to prevent, reduce, minimize and, to the extent practicable, eliminate accidents, injuries and other adverse effects on . . . environment caused by Ship Recycling . . . and enhance ship, safety, protection of . . . environment throughout a ship’s operating life”.¹² This obligation applies to both vessels’ going for recycling and others which are still operational, which means that any newly built ship shall be designed or the material used in future shipbuilding is required to comply with the provisions of the Hong Kong Convention, 2009. Such a measure would ensure that the vessel after completion of her operational service would be recycled as per the standards set by the convention. This point becomes clear when read with Article 9(2) of the Hong Kong Convention, 2009 which uses the words “ship is operating, has operated or is about to operate”.¹³ This indicates that the application of the convention is not only restricted to vessels that are going for recycling but applies to all ships as per Article 2(7).¹⁴ It is required that State parties prohibit the violation of the provisions of the convention and establish sanctions under their national jurisdictions.¹⁵ Further, the Regulations for Safe and Environmentally Sound Recycling of Ships framed under the Hong Kong Convention, 2009 requires that ‘ship recycling facilities shall establish and utilize procedures . . . to prevent accidents, occupational diseases, and injuries or other adverse effects on human health and the environment’¹⁶; “prevent spills or emission

⁸Hong Kong Convention, 2009 (n 7).

⁹*ibid.*

¹⁰*ibid.*

¹¹David M. Dzidzornu, ‘Four principles in Marine Environment Protection: A Comparative Analysis’ (1998) 29 *Ocean Development & International Law* 2, 91, 98–101.

¹²Hong Kong Convention, 2009 (n 7), Article 1(1).

¹³*ibid.*, Article 9(2).

¹⁴*ibid.*, Article 2(7).

¹⁵*ibid.*, Article 10.

¹⁶Regulations for Safe and Environmentally Sound Recycling of Ships, Annex, Hong Kong Convention, 2009, Regulation 19(3).

throughout Ship Recycling which may cause harm to human health and/or the environment”.¹⁷ The convention and regulation squarely addresses the disposal of hazardous materials.¹⁸

From the above discussion, it becomes clear that the Hong Kong Convention, 2009 lays down standards for safe practices which would make the ship recycling industry more environmentally friendly. This is to be achieved by proper management of hazardous material used onboard ships. However, it is pertinent to note that the Hong Kong Convention, 2009 does not prohibit the use of beaching method for bringing ships ashore, in which ships are driven with the high tide onto soft sand shore for ship breaking.¹⁹ The problem with this method is that the ship sits on the sand and the possibility of pollution due to the leak of hazardous liquid from the ship is very high, furthermore, paint residues and micro metal pieces pollute the sand during the dismantling process.²⁰

The European Parliament and the Council of the European Union (“EU”) adopted the Ship Recycling Regulation on 20 November 2013 (“EU SRR”).²¹ The EU SRR was envisioned to facilitate early ratification of the Hong Kong Convention, 2009 by setting standards for control of ships and ship recycling facilities.²² As per the EU SRR, EU-flagged ships must be recycled at recycling facilities which are included on the European list of approved ship recycling facilities.²³ It is generally perceived that the EU SRR sets stricter standards for safety and environmental in comparison to the Hong Kong Convention, 2009.²⁴ The higher standards set by EU SRR includes the prohibition of the beaching method,²⁵ downstream toxic waste management, and labour rights.²⁶

Part II – Ship recycling: current Indian legal regime

The Recycling Act, 2019 states that the Hong Kong Convention, 2009 contains provisions which are not covered by the Ship-breaking Code (Revised), 2013 (“2013 Code”).²⁷ This implies that the Recycling Act, 2019 which is based on the Hong Kong Convention, 2009 covers those aspects of ship recycling which were not covered by the 2013 Code. Thus, a brief study of the 2013 Code is warranted to understand the protection it offers against environmental degradation, which along with the Recycling Act, 2019 constitute the

¹⁷ibid, Regulation 19(4).

¹⁸ibid, Regulation 20.

¹⁹Mosabbir Pasha, Aziz Hasan Mahmood, Istiakur Rahman, Abul Hasnat, ‘Assessment of Ship Breaking and Recycling Industries in Bangladesh-An Effective Step Towards the Achievement of Environmental Sustainability’ (International Conference on Agricultural, Environment and Biological Sciences (ICAEBs), 26–27 May 2012), 44–45; Saurabh Bhattacharjee, ‘From Basel to Hong Kong: International Environmental Regulation of Ship-Recycling Takes One Step Forward and Two Steps Back’ (2009) 1 Trade Law & Development 2, 193, 202 (“**Bhattacharjee**”).

²⁰Bhattacharjee (n 20) 202, SEP Paper (n 4) 15, 17.

²¹Regulation (EU) No 1257/2013 of the European Parliament and of the Council of 20 November 2013 on ship recycling and amending Regulation (EC) No 1013/2006 and Directive 2009/16/EC [2013] OJ L 330, 10.12.2013, 1–20 <<http://data.europa.eu/eli/reg/2013/1257/oj>> accessed 4 February 2022.

²²ibid [5]; Article 1.

²³ibid, Article 2(1), Article 16.

²⁴NGO Shipbreaking Platform, EU Ship Recycling Regulation <<https://shipbreakingplatform.org/issues-of-interest/the-law/eu-srr/>> accessed 4 February 2022; See, Micheal Tsimplis, ‘The Hong Kong Convention on the Recycling of Ships’ (2010) Lloyd’s Maritime and Commercial Law Quarterly 305.

²⁵EU Regulation (n 22), Article 13 (1)(c).

²⁶ibid.

²⁷The Recycling of Ships Act 2019, 1 <<https://www.dgshipping.gov.in/WriteReadData/CMS/Documents/202107270501246494393Act-2019.pdf>> accessed 9 May 2022 (“**Recycling Act, 2019**”).

current legal framework governing ship breaking in India. The 2013 Code is a comprehensive code that covers various aspects of ship recycling in India. Chapter VI of the 2013 Code deals with health and environmental compliances for stakeholders involved with ship recycling.²⁸ With respect to environmental compliance the 2013 Code requires ship recyclers to strictly comply with the Water Act (Prevention and Control of Pollution) Act, 1974 (“**Water Act**”); the Air (Prevention and Control of Pollution) Act, 1981 (“**Air Act**”); and Hazardous Wastes (Management, Handling and Trans-boundary Movement) Rules, 2008.²⁹ Further, the 2013 Code lays down that in case a new facility is being planned then the relevant Environmental Impact Assessment (“**EIA**”) is required and appropriate Coastal Regulation Zone notifications must be complied with.³⁰ The 2013 Code focuses on the safe disposal of hazardous material generated by ship recycling activities and suggests in detail the appropriate disposal options.³¹ It makes it mandatory for ship recyclers to hand over such hazardous materials to authorized waste management facilities for treatment and disposal.³² The 2013 Code requires State Pollution Control Boards (“**SPCBs**”) to set up air quality monitoring stations within a ten-kilometre radius of shipbreaking facilities to take measurements in terms of National Ambient Air Quality Standards.³³ Furthermore, the 2013 Code requires the SPCBs to periodic monitoring of soil, sediment quality, work-zone air quality, and marine waste quality near shipbreaking facilities.³⁴ The 2013 Code goes on to provide for the creation of facilities for the removal, storage, and disposal of hazardous material and wastes.³⁵ The code requires ship recyclers to register as a member of the Hazardous Waste Treatment, Storage and Disposal Facility (“**TSDF**”) from TSDF operator,³⁶ TSDF are facilities for treatment, storage, and disposal of hazardous waste in an environmentally sound manner.³⁷ The hazardous material from the ship recycling yards is to be transported to TSDFs, where the same is disposed of in environmentally sound matter, in other words, the obligation of the ship recycler ends once the hazardous material reaches TSDF. From the above discussion, we can perceive that when the ship is beached, the obligation of the ship recycler to dispose of the hazardous material begins, which is governed under the Recycling Act, 2019 and the 2013 Code. Once the material reaches the TSDF, the Hazardous Waste (Management and Handling) Rules, 1989, and the Hazardous and Other Waste (Management and Transboundary Movement) Rules, 2016 come into play making the operator of the facility liable for environmentally safe disposal of the material.³⁸ Over the years India has made changes to the hazardous waste management

²⁸The Code 2013, Chapter VI lays down the general instructions for safety health and environmental compliance for stakeholders involved in ship recycling.

²⁹*ibid.*, Rule 6.4.1.

³⁰*ibid.*

³¹*ibid.*, Rule 6.4.1 (X).

³²*ibid.*, Rule 6.4.3.

³³*ibid.*

³⁴*ibid.*

³⁵*ibid.*, Rule 6.5 requires facilities be created for ballast water disposal, oil sediments removal; disposal of asbestos; to treat bilge water; and removal of waste oily sludge, mineral oil and paint chips generated during the ship breaking process.

³⁶*ibid.*, Rule 5.3 (i)(b).

³⁷Hazardous Waste (Management and Handling) Rules, 1989.

³⁸*ibid.*, Rule 4 (1) states that occupier and the operator of a facility shall be responsible for proper collection, reception, treatment, storage and disposal of hazardous material.

rules to align itself to the Basel Convention,³⁹ but India has not ratified the Basel Ban Amendment (“**Ban Amendment**”), which came into force in 2019.⁴⁰ Since the dismantling of a ship is considered as waste under Article 2 of the Basel Convention,⁴¹ both the Convention and the Ban Amendment apply to ship recycling. Considering, India has not ratified the Ban Amendment, the protection offered under the same does not apply to ship recycling industry in India.

As far as the beaching method is concerned, India seems to be in line with the Hong Kong Convention, 2009, which as mentioned above does not prohibit its use for shipbreaking. In 2020, the National Green Tribunal (“NGT”) held that the beaching method was permissible⁴²; the tribunal based its conclusion on a 2007 Supreme Court of India judgement.⁴³ In that case, the Supreme Court of India had applied the principle of sustainable development based on the concept of “balance” to allow the dismantling of a ship at Alang, Gujarat, thus, allowing and permitting the use of the beaching method for ship recycling.⁴⁴ Similarly, NGT in its 2020 judgement opined that if the beaching method is not followed, there would be no ship breaking activity in India, therefore, depriving the country of a major business activity, which would in term lead to unemployment of a large labour force.⁴⁵ The NGT further observed that an expert study, independently conducted under its auspice has not reported any adverse effect of the beaching method since 1982.⁴⁶ The observation of the court seems to shy away from the fact that EU has banned the beaching method for ship recycling for all EU flagged ships due to the safety and environmental issues based on scientific findings.

The Indian framework addresses the management and disposal of hazardous material right from when the dismantling of the ship starts till the point such materials are disposed of at designated facilities in a proper and environmentally sound manner. So, what does the Recycling Act, 2019 add to the current regime, does it make the existing regime more robust and align it to prevailing international standards?

Part III – The Recycling Act, 2019: salient features

The Recycling Act, 2019 received the assent of the President of India on 13 December 2019. The objective of the Recycling Act, 2019 is to provide “the regulation of recycling of ships by setting certain standards . . .”.⁴⁷ The Recycling Act, 2019 aims to bring the practices adopted by the Indian ship-breaking industry in line with the standards set up by the Hong Kong Convention, 2009.⁴⁸

³⁹India became a party to the Basel Convention in 1992 and made numerous amendments to the Hazardous Wastes (Management and Handling) Rules, 1989 to give effect to the convention.

⁴⁰The Ban Amendment to the Basel convention prohibits shipments of hazardous waste from parties listed in the Annex VII of Basel Convention which are destined for operations according to Annex VI A, to States not listed in Annex VII (Article 4A (1)). The amendment also inserts a new preambular paragraph 7 bis, which recognizes that transboundary movements of hazardous wastes, with regards to developing countries, have a high risk of not being able to provide environmentally sound management facilities as required by the convention.

⁴¹Conference of the Parties to the Basel Convention on the Control of Transboundary Movement of Hazardous Waste and their Disposal, Seventh Meeting, held at Geneva from 25 to 29 October 2004.

⁴²Conservation Action Trust v Union of India [2020] SCC OnLine NGT 868, [37] (“**Conservation Action Trust**”).

⁴³*Research Foundation for Science Technology and Natural Resource Policy v Union of India and Other* (2007) 15 SCC 193.

⁴⁴*ibid*, 15–16.

⁴⁵Conservation Action Trust (n 43) [35].

⁴⁶*ibid*.

⁴⁷Recycling Act, 2019 (n 28), 1.

⁴⁸*ibid*.

The Recycling Act, 2019 states that the “... [c]onvention lays down the multilateral framework to be followed internationally by countries which becomes a party to it...”⁴⁹ and “it is considered expedient to accede to the... Convention now”.⁵⁰ In light of this, the Recycling Act, 2019 has been enacted to bring the Indian Ship recycling industry in line with international standards and practices as laid down by the Hong Kong Convention, 2009. The Recycling Act, 2019 like the Hong Kong Convention, 2009 addresses the two aspects of ship recycling, first, environmental risk and, second, occupational health and safety risk. The approach adopted in terms of environment protection by the Recycling Act, 2019 is similar to the Hong Kong Convention, 2009, i.e. safe management and disposal of hazardous material. This is done by expressly requiring ship recyclers to ensure safe and environmentally sound removal and management of hazardous materials from a ship. Ship recyclers are required to comply with the infrastructural requirements for safe disposal and management of wastes and hazardous materials as well.⁵¹ Further, the Recycling Act, 2019 obligates the ship recycler to ensure that there is no damage to the environment in any form due to the ship recycling activities and requires them to take necessary measures for the protection of the environment.⁵²

The Recycling Act, 2019 also states that in case of an oil spill in the facility, the ship recycler shall be served a notice by the Competent Authority to take remedial action.⁵³ Furthermore, the Recycling Act, 2019 makes the ship recycler liable to pay for the environmental damages and even compensate for the cleanup operations.⁵⁴ Since the Act primarily imposes the responsibilities of environmental protection and conservation on ship recyclers, it becomes imperative to understand who can be a ship recycler. Section 2(m) of the Recycling Act, 2019 states that “the owner of the ship recycling facility or any other organisation or person who has assumed the responsibility for the operation of the ship recycling facility and who has agreed to take over all duties and responsibilities imposed by or under this Act”. In other words, a ship recycler can be a person or a corporation, who may own such a facility or operate it under a lease or otherwise. Section 2(o) of the said Act defines a ship recycling facility as a defined area that is a site, yard, or facility used for the recycling of ships.

The most interesting feature of the Recycling Act, 2019 is Section 34, which states that when “an offence committed by a company, every person, at the time the offence was committed was in charge of, and was responsible to the company for the conduct of the business of the company, as well as the company shall be deemed to be guilty of the offence and shall be liable to be proceeded against...”. This provision will have tremendous impact on the clean-up operations, as it would help in ascertaining accountability for environmental damage. The company and its management would be jointly liable for such an act and will not be able to hide behind the corporate veil.⁵⁵ Therefore, in

⁴⁹ibid 2.

⁵⁰ibid.

⁵¹ibid, Section 21.

⁵²ibid, Section 22 (1).

⁵³ibid, Section 22(2).

⁵⁴ibid, Section 22(3).

⁵⁵The principle for lifting of corporate veil is well settled in law and reiterated by Indian courts time and again. The concept was first laid down in *Aron Salomon v A. Salomon & Co. Ltd* (1897) AC 22.

case a company, ship recycler is found liable for environmental damage or cost of cleanup, then even if the company goes bankrupt, still the individuals comprising the management of such company would be liable to pay.

Further, reference to the Wildlife (Protection) Act, 1972⁵⁶; Water Act⁵⁷; Forest (Conservation) Act, 1980⁵⁸; Air Act⁵⁹; Environment (Protection) Act, 1986 (“**Environment Act**”)⁶⁰ can be found in the Recycling Act, 2019 which is to be used for defining words and expressions that may not have been defined in the Act.

It is imperative to note that as discussed above the Hong Kong Convention, 2009 requires states to prohibit any violation of the requirements of the convention and accordingly establish sanctions under their domestic law.⁶¹ The Recycling Act, 2019 lays down the offences, penalties, and compensation for the violation of requirements of the Act by stakeholders.⁶² The Act lays down the sanctions applicable to stakeholders based on their responsibilities and role in the ship breaking process. For instance, Section 31 of the Act lays down the penalty for the contravention of Sections 12, 17, and 22 which pertain to the ship recycler. Similarly, Section 33 of the Act lays down the penalties which relate to the owner of the ship. It is pertinent to mention here that the Act does not outlaw the beaching method or lay down any preferred method of recycling that could be considered more environmentally friendly. What protection does the Recycling Act, 2019 offer to the environment?

Part IV – The Recycling of ships Act, 2019 and environment protection

To determine if the Recycling Act, 2019 provides adequate protection to the environment we can start by looking at the environmental protection principles that the said Act incorporates

- (1) Polluter pays principle: The polluter pays principle has been utilized and refined by the Indian judiciary over the years. The Supreme Court of India in the Indian Council for Enviro-Legal Action *v* Union of India,⁶³ observed that “... principle ‘Polluter Pays’ has gained almost universal recognition ...”.⁶⁴ Further, the court observed that Section 3 and Section 5 of the Environment Act in addition to the powers vest by the Water Act and Air Act, empowers the government to take action for conservation and protection of the environment. This includes “the power to prohibit an activity, close an industry, direct and/or carry out remedial measures, and wherever necessary impose the cost of remedial measures upon the offending industry”.⁶⁵ In a way, the Supreme Court inferred that the polluter pays principle can be read into the

⁵⁶Recycling Act, 2019 (n 28) Section 2(2)(vii).

⁵⁷ibid, Section 2(2)(viii).

⁵⁸ibid, Section 2(2)(x).

⁵⁹ibid, Section 2(2)(xi).

⁶⁰ibid, Section 2(2)(xii).

⁶¹Hong Kong Convention, 2009 (n 7), Article 10.

⁶²Recycling Act, 2019 (n 28), Chapter IX.

⁶³Indian Council for Enviro-Legal Action *v*. Union of India [1996] 3 SCC 212.

⁶⁴ibid 30.

⁶⁵ibid.

provisions of the Environment Act. Furthermore, it is imperative to note that Section 20 of the National Green Tribunal Act, 2010 (“**NGT Act**”) mentions that the Tribunal shall while passing any order or decision or award apply the polluter pays principle. It is quite clear that the Indian lawmakers and judiciary consider this principle to be of vital importance when dealing with environment-related legislation or regulations. Therefore, the use of this principle in the Recycling Act, 2019 is something understandable, since one of the main objectives of the Act is to deal with the adverse effects of ship recycling on the environment. Surprisingly, the Hong Kong Convention, 2009 does not specifically mention this principle,⁶⁶ although it can be said that Article 10 requires states parties to establish sanctions under their domestic law for violation of the requirements of the convention. As implementation is incumbent upon the state parties, the polluter pays principle must be incorporated in their national law addressing ship recycling. Keeping in mind that the Recycling Act, 2019 was enacted to bring the Indian practice in line with the Hong Kong Convention, 2009; the act has laid down specific provisions and sanctions for violation of the provisions that may lead to environmental damage. The Recycling Act, 2019 expressly states that polluters must pay for the environmental damages or cleanup costs, which may result due to their ship recycling activities.⁶⁷ The Act, however, does not clarify to what extent the polluter would be liable to pay damages. It has been reported that pollution caused by ship recycling facilities can change the ecosystem of the region, where the damage to the environment is continuing.⁶⁸ If that is the case then can the polluter be held liable for damages to the environment that may be remote? The Act does not leave this question unanswered. The Act gives powers to the Central Government to make appropriate rules in this respect, sub-clause (1) mentions “liability of the Ship Recycler for environmental damages under sub-section (3) of section 22.”⁶⁹ Therefore, we can conclude that the Act does incorporate the polluter pays principle, but its effectiveness would depend on the rules that the Government may develop in the future.

- (2) Precautionary principle: The precautionary principle has been recognized by the Indian courts over the years as a vital feature of sustainable development.⁷⁰ The Supreme Court of India in the *Vellore Citizen’s Welfare Forum v Union of India*,⁷¹ explained the application of the principle in the context of the municipal law:

⁶⁶Bhattacharjee (n 20), 227.

⁶⁷Recycling Act, 2019 (n 28) Section 22(3).

⁶⁸SEP Paper (n 4).

⁶⁹Recycling Act, 2019 (n 28) Section 42.

⁷⁰Gitanjali Nain Gill, “The Precautionary Principle, Its Interpretation and Application by the Indian Judiciary:” When I Use a Word It Means Just What I Choose It to Mean-Neither More Nor Less “Humpty Dumpty” (2019) 4 Environmental Law Review 21, 292–308, 295. Supreme Court of India has recognized the precautionary principle as part of the Indian jurisprudence the following cases – *M.C Mehta v. Union of India* (1987) 4 SCC 463; *Democratic Youth Federation of India v. Union of India* (2011)15 SCC 530; *Narmada Bachao Andolan, etc. v. Union of India* (2000) 10 SCC 664; *Alembic Pharmaceuticals v. Rohit Prajapati* (2020) SCC OnLine SC 347.

⁷¹*Vellore Citizen’s Welfare Forum v. Union of India* (1996) 5 SCC 647, 658.

- (i) State government and statutory Authorities must develop environmental measures to anticipate, prevent and attack the causes of environmental degradation.⁷²
- (ii) Lack of scientific certainty should not be used as an excuse to postpone measures to prevent such activities where there is a threat of serious and irreversible damage to the environment.⁷³
- (iii) The onus of proof is on the actor, undertaking such activity have to show that their actions are environmentally benign.⁷⁴

Like the polluter pays principle, the precautionary principle also finds express mention in Section 20 of the NGT Act requiring the tribunal to apply the principle in its orders, decisions, and awards. NGT in *Vimal Bhai v. Tehri Hydro Development Corporation & Others*,⁷⁵ observed that:

*‘The Precautionary Principle has two-fold obligations. Firstly, the project proponent must take all expected precautions and preventions to ensure that no pollution results from its activity. Secondly, it has to take into consideration the Principle of Inter-Generational Equity and therefore ensure that it causes no irretrievable damage to natural assets. In addition, a definite obligation is placed upon the project proponent to protect these assets.’*⁷⁶

The threshold to be met may be summarized as: government agencies must anticipate, prevent, and attack the source of pollution; scientific uncertainty cannot be used as an excuse; the onus is on the actor to show that their actions are environmentally benign. The first two requirements pertain to the state governments and agencies; however, the last obligation applies to project proponents, who are the ship recyclers in our case. This obligation of project proponents is two-fold as mentioned above, namely, they must take all precautions and preventions, and they must protect nature in consonance to the principle of inter-generational equity. Furthermore, as mentioned above the Hong Kong Convention, 2009 expressly requires state parties to be mindful of the precautionary approach set out in Principle 15 of the Rio Declaration.⁷⁷ Therefore, the Recycling Act, 2019 which is based on the Hong Kong Convention, 2009 should incorporate the precautionary approach as well. Keeping in mind the above discussion and the approach taken by the Indian judiciary, like the polluter pays principle, the precautionary principle must be treated as a key tool for achieving sustainable development objectives. Not only do the courts invoke precautionary principles while determining environment-related cases, but the principle has also been incorporated in various statutes as well, for instance, the NGT Act.

∨To determine if the Recycling Act, 2019 incorporates the precautionary principle or not, it becomes imperative to look at some of the provisions of the Act in detail.

The Recycling Act, 2019 seeks to regulate the safe disposal and management of hazardous waste to prevent and limit environmental damage. This is done by putting in place a mechanism of checks and balances. To start, the Act establishes a National

⁷²ibid.

⁷³ibid.

⁷⁴ibid.

⁷⁵*Vimal Bhai v. Tehri Hydro Development Corporation & Others* (2017) OA No. 197 of 2016, dated 13 April 2017.

⁷⁶ibid, 17.

⁷⁷SEP Paper (n 4).

Authority dedicated to ‘administer, supervise and monitor all activities relating to ship recycling under this Act’.⁷⁸ Additionally, the Act establishes the Competent Authority which is to perform such duties as may be prescribed within a geographical area or area of expertise.⁷⁹ From Section 43 of the Recycling Act, 2019, which lays down the powers of the National Authority, it can be perceived that the act establishes a comprehensive framework for the regulation of ship-breaking activities. This framework seems to adequately equip the government agencies with tools for anticipating, preventing, and attacking the source of pollution for ship-breaking activities. To name a few, the National Authority has power to make regulations with respect to requirements relating to ship recycling facilities (Section 43); manner of preparation of a ship recycling facility management plan (Section 12 (1)); standards to be maintained by ship recycler (Section 12 (5)); manner in which certificate of authorization is to be issued and its validity (Section 12 (6) & (8)); manner in which the Competent Authority may conduct enquiry and inspection (Section 13 (2)); manner in which the application for ready for recycling certificate is to be given to the National Authority (Section 16(1)); manner of obtaining the written permission of the Competent Authority (Section 18 (1)); authority to authorize the ship recycling facility (Section 18 (2)); requirements relating to removal and management of hazardous materials and the basic infrastructure required on part of the ship recycler (Section 21 (b)); manner in which the notice for oil spill shall be served by the Competent Authority to a ship recycler (Section 22 (2)); manner in which the statement of completion needs to be by the ship recycler (Section 23). The above mechanism covers not only the pre-recycling stages but also the recycling process up to the issuance of the statement of completion.

However, the Recycling Act, 2019 does not properly deal with scientific uncertainty in decision-making. The lack of scientific uncertainty may surface from time to time as the long-term impact of some hazardous material cannot be anticipated in advance, in other words, it may take many years to understand the potential risks.⁸⁰ It is important to note that the Recycling Act, 2019 does not spell out the lack of scientific evidence to be considered in the decision-making process of the bodies established under the Act. But as long as the Act allows for such deliberations for the future and leaves scope for improvements, scientific uncertainty should not be a major issue.⁸¹

From the point of view of the ship recycler, the Recycling Act, 2019 lays down a process to be adopted for ship recycling in detail.⁸² To start with a shipowner, who intends to recycle his ship in India, shall apply for a ready for recycling certificate to the National Authority,⁸³ which is issued after the survey of the ship.⁸⁴ The ship recycler prepares a ship recycling plan as per the guidelines issued by the National Authority and

⁷⁸Recycling Act, 2019 (n 28) Section 3.

⁷⁹Recycling Act, 2019 (n 28) Section 4.

⁸⁰National Research Council, *Improving Risk Commutation* (Washington, DC: The National Academic Press 1989), 32.

⁸¹Recycling Act, 2019 (n 28), the Central Government (Section 42) and National Authority (Section 43) may develop appropriate rules and regulation respectively, thus providing latitude for incorporating the relevance of scientific certainty as one of the factors in the decision making of the authorities established under the Act. Although it is not clear if the Act provides for establishment of a scientific body within its framework which could conduct periodic reviews of the standards keeping in mind scientific research which may help in detecting early signs of an environmental disaster or degradation.

⁸²Recycling Act, 2019 (n 28) Chapter V.

⁸³*ibid*, Section 16 (1).

⁸⁴*ibid*, Section 16 (2).

approved by the Competent Authority.⁸⁵ This gives the ship recycler ample opportunity to demonstrate that their ship-breaking activity fulfills their obligations as per the precautionary principle as stated above. However, there seems to be a loophole here, section 17 (3) asserts that if the Competent Authority does not convey its decision regarding approval within fifteen days, the plan shall be deemed to be approved. Similarly, the mandatory permission of the Competent Authority,⁸⁶ which is to be issued after physical inspection of the ship,⁸⁷ shall be deemed to be granted if the authority fails to convey its decision within fifteen days.⁸⁸ These provisions are a major loophole and could lead to situations where due to administrative delays the ship recycler, may start dismantling the ship without an approved plan or permission from the Competent Authority. Since India recycles a large number of ships every year,⁸⁹ the potential threat to the environment is enormous.

Based on the above analysis, it is not clear if the Act incorporates the precautionary principle wholly, but the safeguards and procedures put in place by the Act do give a sense of the precautionary approach. The omission of scientific certainty as a vital decision-making factor and the missing hint of inter-generational equity do speak otherwise. Keeping in mind the detail filling law-making powers of the Central Government and the National Authority under the Act, we may see the omitted principle being utilized in some or the other form or at least in spirit. Therefore, the question of the Act incorporates precautionary principle in the sense the Hong Kong Convention, 2009 or Indian courts or lawmakers perceives it, may not be easily answered unless the operational rules and regulations are put in place by lawmakers.

- (1) Sustainable Development: The Hong Kong Convention, 2009 on the outset recognizes that ship recycling contributes to sustainable development.⁹⁰ The push of the convention is to make the ship recycling industry more environmentally sound and lead it towards a more sustainable development model. The idea is that when ships complete their operational life they need to be safely disposed of and recycling is the best option.⁹¹ Thus, ship recycling contributes to sustainable development, it is also imperative to mention here that the main ship recycling countries are India, Pakistan, Bangladesh, Turkey, and China.⁹² Seventy percent of the ship recycling is done in India, Pakistan, and Bangladesh; the ship recycling industry brings major economic earnings for these countries which in turn helps in developmental projects. For instance, by enacting the Recycling Act, 2019 the Indian government seeks to capture at least 60% of the global ship recycling business, which would contribute immensely to the Indian GDP.⁹³ Therefore,

⁸⁵ *ibid*, Section 17 (1)–(2).

⁸⁶ *ibid*, Section 18(1).

⁸⁷ *ibid*, Section 20(1).

⁸⁸ *ibid*, Section 20 (2).

⁸⁹ G Seetharaman & Prerna Katiyar, 'Can a New Ship-Recycling Law Help India Regain its Status as the World's Top Dismantler of Vessels?' *Economic Times* (22 December 2019) ("**Seetharaman**").

⁹⁰ Hong Kong Convention, 2009 (n 7) 1.

⁹¹ *ibid*.

⁹² NGO Shipbreaking Platform, 'The Problem' <<https://shipbreakingplatform.org/our-work/the-problem/>> accessed 4 February 2022.

⁹³ 'India Eyes 60% Share of Global Ship Recycling Business, Says Minister' *The Hindu* (26 December 2020).

the ship recycling industry is of vital importance for some of the Asian countries as it helps in the achievement of their developmental objectives. The ship recycling activities in these countries have grown over time due to cheap labour and the weak implementation of environmental laws.⁹⁴ India has been committed to its sustainable development obligations, and the Indian legislature has enacted laws specifically addressing environmental degradation and economic activities.⁹⁵ The Supreme Court of India has played a very important role in interpreting such legislation from the lens of sustainable development concept, to achieve the balance between environmental conservation and economic development.⁹⁶ In light of this, it can be safely said that the concept of sustainable development is inherent in the Recycling Act, 2019 and since the concept has been recognized by Indian courts over the period, the provision of the Act shall also be interpreted keeping in mind the sustainable development concept.

The Recycling Act, 2019 seeks to achieve the environmental protection objectives by laying down a mechanism for safe and environmentally sound disposal of hazardous material generated from ship recycling yards. Now the question arises does the Act brings about the required changes to improve upon the existing legal framework applicable to ship recycling in India, it is imperative to note here that various reports have shown that the current ship recycling activities have caused severe environmental damage to the ecology of the area where such activities are undertaken.⁹⁷

Based on the above analysis it is difficult to say whether the new Act makes any dramatic improvements within the current ship recycling regime to make it more environmental centric. The Act does make the ship recycling process more streamlined. But the actual benefits to occupational and environmental safety may only be properly realized once appropriate rules and regulations are implemented to complement the current legal framework applicable to the ship recycling industry in India. One prominent feature of the Act is that it lays down standards for the use of hazardous material on newly built ships,⁹⁸ but here it is important to mention that the provisions of the Act apply only to new ships which are registered in India.⁹⁹ Here one can argue that since the Hong Kong

⁹⁴Seetharaman (n 90); Silvia Pastorelli, 'EU Ship Recycling Regulation: What's in it for South Asia, EU-Aisa at a Glance' (2014) European Institute for Asian Studies, 2; Sefer A. Gunbeyaz, Rafet E. Kurt and Rapheal Baumler, 'A Study on Evaluating the Status of Current Occupational Training in the Ship Recycling Industry in Bangladesh' (2019) WMU Journal of Maritime Affairs 18, 41–59; John Vidal, 'This is the World's Cheapest Place to Scrap Ships'-but in Chittagong, its people who pay the price' *The Guardian* (2 December 2017) accessed 4 February 2022.

⁹⁵*Research Foundation For Science v. Union of India and Others* (2005) 13 SCC 186, the Supreme Court of India observed with regards to the concept of sustainable development observed that 'As is clear from Articles 47, 48A and 51A(g) of Our Constitution and that, in fact, in the Various Environmental Statutes Including the Environment Act, these Concepts are Already Implied' [33].

⁹⁶See *Vellore Citizens' Welfare Forum and State of Tamil Nadu v. Union of India and Ors.* (1996) 5 SCC 647, in this case the Supreme Court of India recognized sustainable development as a customary international law; *Research Foundation For Science v. Union of India and Others* [2005] 13 SCC 186, Supreme Court of India recognized sustainable development principle as part of the Indian domestic law. Also see, *A.P Pollution Control Board V Prof M.v. Nayudu* [1992] 2 SCC 718, *Indian Council for Enviro-legal Action and Ors. v. Union of India and Ors.* [1996] SCC (3) 212.

⁹⁷SEP Paper (n 4) the report on ship recycling stated that research has shown that the Chittagong ship recycling industry is linked to carcinogenic air pollution; the Alang-Sosiya ship recycling yard in India is linked to the anthropogenic pollutants in the coastal water, affect the bacterial community structures in the region and found small plastic pieces in intertidal sediments; and ship breaking industry in Bangladesh is linked to alarming heavy metal pollution of sediments and sea water.

⁹⁸Recycling Act, 2019 (n 28) Section 6.

⁹⁹Recycling Act, 2019 (n 28) Section 1 (3) (b).

Convention, 2009 has not entered into force yet, therefore same standards of use of hazardous material do not apply to all shipbuilding countries, then what happens to ships built in such country and desirous to be recycled in India. It is pertinent to mention here that the Recycling Act, 2019 does provide for such ships as well, Section 1 (3)(c), states that the Act applies to ships, which includes any ship calling Indian port, shipyard, or offshore terminal or a place in India or its exclusive economic zone or territorial waters of India and so on. The problem that this provision poses is that if the regulation or rules formulated under the Act are too stringent, then many ships built 20–25 years back and still in operation would not be able to call Indian ports. This could harm trade, therefore it becomes imperative that the policymakers develop rules and regulations keeping in mind various environmental, occupational, and economic aspects, not only about the ship recycling industry but also other industries which may have a spillover effect.

Conclusion

The Act is a positive step towards making the ship recycling industry greener in India, but a lot depends on the rules and regulations that may be developed under the Act. The long-term implementation and its benefits to the environment will have to be revisited. The policymakers must also grapple with issues, which are directly or indirectly associated with ship recycling activities. For instance, the impact of ship-breaking activities on the livelihood of the local community. It has been reported by local communities at Alang that the fish catch has declined in the region.¹⁰⁰ The most important aspect of the ship recycling legal regime that needs to be strengthened further is implementation, which is perceived to be lacking in most of the countries where shipbreaking activities are carried out.¹⁰¹ Policymakers must ensure strict implementation and monitoring, if possible, EIA should be carried out before each ship dismantling, the cost of which should be borne by the shipowner and the ship recycler. Coordination amongst states authorities,¹⁰² and the surveying mechanism as laid down by the Act are vital for effective implementation.¹⁰³ The objective of the Act can only be achieved if rules and regulations developed under the Act are environmentally sound and holistic in approach.

Disclosure statement

No potential conflict of interest was reported by the author(s).

¹⁰⁰Ramapati Kumar, 'Ship Dismantling: A Status report of South Asia, EU-India Action Plan Support Facility- Environment' (*Shipbreakingplatform.org*, November 2018) <http://eeas.europa.eu/archives/delegations/india/documents/eu_india/ship_dismantling_en.pdf> accessed 4 February 2022.

¹⁰¹Bhattacharjee (n 20) 198.

¹⁰²Recycling Act, 2019 (n 28) Section 3 & empowers the Central Government to establish the National Authority and Competent Authority to look exclusively into governance of ship recycling industry. In addition, other authorities shall also have jurisdiction, for instance State Pollution Boards, department of labour of respective states, and mercantile marine department.

¹⁰³Recycling Act, 2019 (n 28). Section 7 lays down the provisions with regards to stage at which surveying is required for a ship being recycled.