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DISCUSSION PAPER

‘ONE SHIP, ONE DEATH’: THE ENVIRONMENTAL AND ETHICAL IMPLICATIONS OF THE SHIP RECYCLING INDUSTRY

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Photo by Shreyasi Pathak, in collaboration with the Living Waters Museum

In picture: ***Atlas Highway***, a vehicle carrier built in 1987, and sailed under the flag of Liberia. Photo taken at Alang-Sosiya, where she was beached to be dismantled in 2016.

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ABSTRACT

The next few years are predicted to see a boom in the ship recycling industry, for reasons that include the financial slowdown at the global level, and the passing of the Recycling of Ships Act, 2019 and ratification of the Hong Kong Convention at the domestic level. This paper, the second in the two-part series on ship recycling, engages with the implications of this boom, both on the lives of workers and the environment. It additionally contextualises the politics of waste – specifically, the global waste trade, and highlights the possibility of a refocus from ship recycling to ship building in the country.

INTRODUCTION

The shipping industry is an integral aspect of the world economy, supporting intercontinental trade, transport of oil and raw material as well as the import and export of goods between countries and continents. At present, there are about 50,000 merchant ships at sea, not including oil tankers, cruise ships and military vessels (International Chamber of Shipping n.d.). These ships have an average service life of 30 years, post which they are recycled or dismantled. Asia is at the centre of the ship recycling industry, with India, Bangladesh, Pakistan, China, and Turkey controlling a large part of the trade. Alang-Sosiya in Gujarat is the most important ship recycling site in India, controlling over 90% of India's ship recycling industry.

The next few years are predicted to see a boom in the industry, for reasons that include the financial slowdown at the global level, and the passing of the Recycling of Ships Act, 2019 and ratification of the Hong Kong Convention at the domestic level. This paper engages with the implications of this boom, both on the lives of workers and the environment. It additionally contextualises the politics of waste – specifically, the global waste trade.

Beginning from the second half of the twentieth century and resulting from rapid technological and industrial development, developed (or industrialised) countries have been generating increasing amounts of toxic waste. This waste often finds itself dumped in the countries of the Global South[1], due to a variety of reasons: increase in the cost of treating and disposing of these escalating quantities of waste in the Global North (particularly due to the stringency of environmental norms that govern the treatment of the waste); the need to cut costs and increase profits; the deep-rooted colonial and racist consequences of fiscal relief to former colonies in exchange for permission to dump waste[2]; and finally, the notion that toxic dumping on poor communities is acceptable (Pellow 2007: 8-9). India itself has been a destination for waste from Australia, the United Kingdom, the United States, Germany and Japan. Data is largely unavailable for exactly what type of waste came from where, but India is amongst the top 10 plastic scrap importers in the world (Arora 2019).

In 2019, the United States generated 12% of the global municipal solid waste (MSW), despite only having 4% of the world's total population. In comparison, India and China's share of waste was less than their share

[1] Such countries, especially those in South East Asia have begun to return or deny entry to such waste over the past few years. China banned all imports of waste, Philippines threatened Canada with the severing of diplomatic ties, India, Thailand, Malaysia, and Vietnam all introduced legislation and Indonesia even sent back containers of waste that they found to be hazardous (Ellis-Petersen 2019).

[2] Also known as Garbage Imperialism.

of the global population (27% of MSW for 36% of global population). It can be said that Americans produce three times as much waste as the most populous country on Earth, China (Nichols and Smith 2019). India, in the past, has been a dumping ground for plastic, e-waste, and other toxins like mercury and asbestos. However, the government has gradually restricted and even banned this dumping, most notably by amending the 2016 Rules to create the Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2019 (PIB 2019a). Despite this, dumping of waste continues to happen at several levels, either illegally[3] or in industries like the one being discussed.

One of the reasons this waste trade has managed to survive is the availability of cheap labour to sort and manage the waste, and the lack of laws to protect workers against the harmful consequences. Because of the lack of alternative opportunities and the generally low awareness about the dangers of the trade, hundreds of people continue to work in this industry each year.

When it comes to the Ship Recycling Industry, the argument of waste flows and human exploitation is often challenged by the benefits that the industry provides such as in the form of steel, employment and economic stimulus. The question is thus, does everyone benefit from the industry, or are the benefits received by few at the cost of many?

ENVIRONMENTAL AND HEALTH IMPLICATIONS

The environmental implications go far beyond just the immediate geographical vicinity of the industry, but to the area around it. Additionally, with the global trade and food cycle, the industry has impacts on those who may not even know of its existence.

The process of beaching allows toxic items to get discharged into the soil, sea, and air. Despite not being favoured by the Basel Convention and the European Union Guidelines, the Hong Kong Convention and consequently the Recycling of Ships Act, 2019 (Act) does not explicitly prohibit beaching[4], but only encourages states to pick a method that is “environmentally sound”. Because the coast of Alang-Sosiya is naturally advantageous to beaching and the alternative involves immense investment on proper equipment, beaching continues to be the prevalent practice.

Despite this, the spread of toxic material can be prevented by insisting on pre-cleaning. This involves removal of toxic material from the ship, leaving only those that are required for the ships to travel to the ship breaking yard. Conventions like the Basel Convention and the European Union guidelines encourage pre-cleaning since the onus and cost is then on the ship owner and not the ship breaker and his country. However, neither the Hong Kong Convention nor the Act insists on this method. Instead, the waste is usually released directly into the sea, burnt at the shipbreaking plot, or dumped in surrounding villages, or in nearby industrial areas where it can mix in with other waste (Demaria 2010). While the Act does state that ship owners are required to have a certificate of hazardous material onboard, there are two key issues with it (Act 2019).

[3] India officially banned the import of plastic waste in August 2019 with the Amendment Rules. However in October 2019, the Basel Action Network and the Nexus3 Foundation (Indonesia) discovered this was untrue. Waste that was being returned to the United States by Indonesia after discovering that the contents were hazardous ended up being diverted to India and other Asian countries. The Adani Port in Munda, Gujarat and Gateway Terminals in Maharashtra received the content which was later transported to Kanpur, Uttar Pradesh (Kaur 2019, Basel Action Network and Nexus3 2019).

[4] Since three quarters of the world rely on this method (Mishra 2018).

First, certificates granted by any administration, as long as it is from the last 5 years is applicable. It is evident that there is a difference of understanding as to what constitutes hazardous waste amongst countries and more importantly, the Act still allows yards to dispose of waste in a way that is considered environmentally suitable.

The industry is therefore directly responsible for serious deterioration in the quality of water – both sea water and potable. Toxins like mercury and arsenic as well as mineral and petroleum oils have seeped into the water (Tewari et. al 2001). This has impacted the quality and quantity of fish available. Further, exotic species of sea life non-native to the region have entered the water. The sea water now has poor biological potential and because of the mutation of the fish to adapt to these surroundings, they are less commercially viable (Demaria 2010). With a large proportion of the local community being dependent on fishing, this has impacted their livelihood[5]. The local infrastructure has not been able to adapt to the influx of the migrant population. This is evident from the lack of sanitation facilities. There are very few toilet facilities and these are often improperly managed (Figure 1)[6]. At least 56% of workers are forced to choose open defecation (Sahu n.d.). Fecal material has been discovered in the already overexploited potable water. Noise pollution and furnace emissions leading to acid rain are some other harmful consequences.

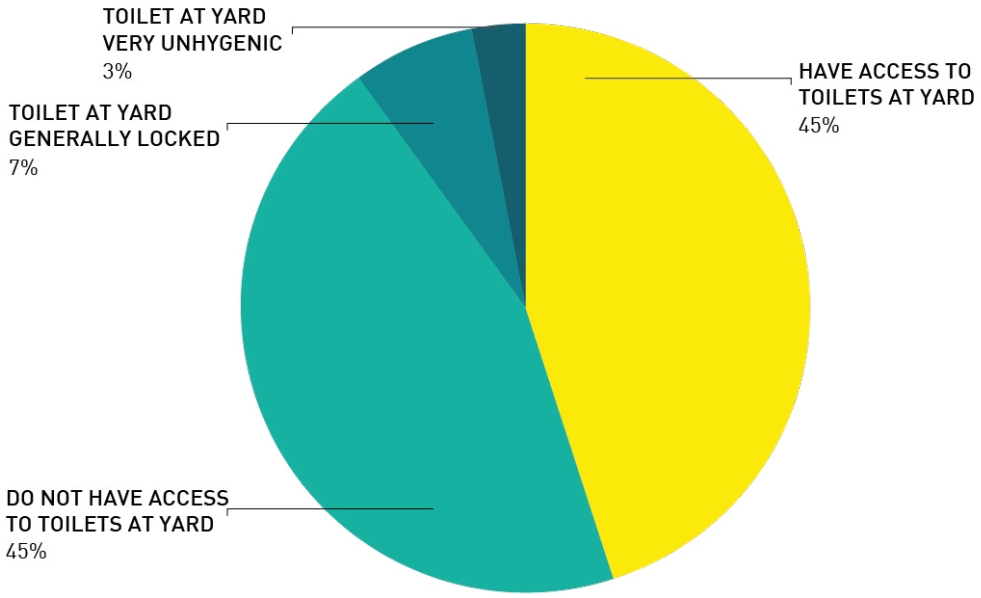

Figure 1: Access to Toilets among Workers
Source: (Sahu n.d.)

Due to improper waste management, toxic material has entered the houses of the locals as well, often in the form of panels and furniture. Serious respiratory and skin problems have been discovered, and because the soil has been corrupted, the agricultural output has also decreased (Demaria 2010). The environment has caused a direct impact on the lives of those that work there.

[5] With few alternative careers.

[6] This study by Geetanjoy Sahu from the Tata Institute of Social Sciences had a sample pool of 103 workers from various yards of Alang.

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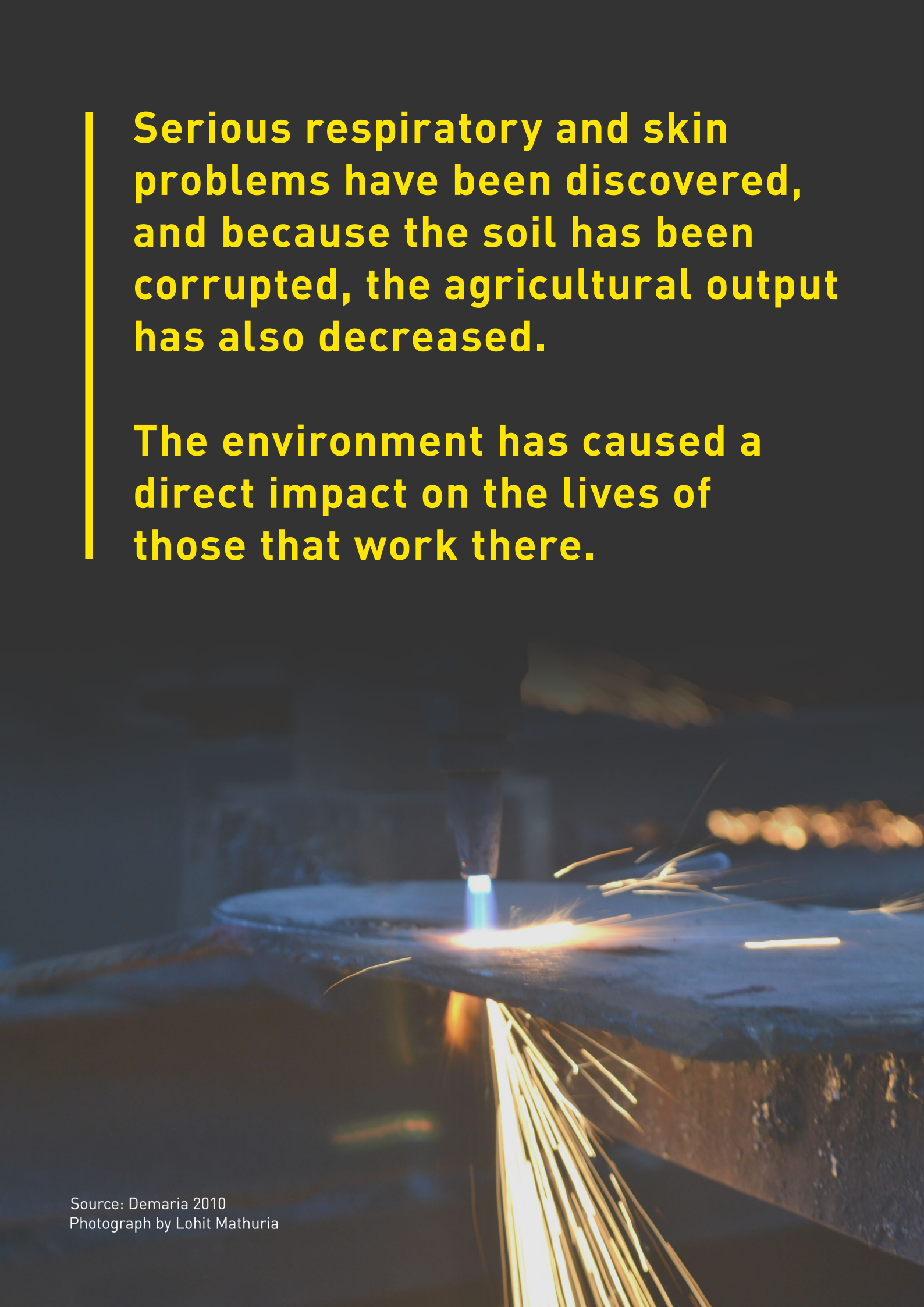


Source: Demaria 2010
Photograph by Lohit Mathuria

ETHICAL IMPLICATIONS

Pointing to the working conditions in the industry in India, the Final Report of the Supreme Court-appointed Technical Experts Committee, as cited by Sahu (2014) highlighted:

"[T]he average annual incidence of fatal accidents in the ship breaking industry is 2.0 per 1,000 workers while the all India incidence of fatal accidents during the same period in the mining industry, which is considered to be the most accident-prone industry, is 0.34 per 1,000 workers (54)."

This quote is based on official data from 1995 to 2005. Federico Demaria has correlated the number of traumatic work fatalities each year to the number of ships dismantled. The workers of Alang-Sosiya echo this with the popular saying, 'one ship, one death', or 'one per day' (Demaria 2010). The workers are mainly migrant labourers from other parts of Gujarat, or Uttar Pradesh, Bihar, Jharkhand, Odisha, Madhya Pradesh and West Bengal (Sahu n.d.) (Figure 2). They work on a daily wage basis under contractors who often make it difficult for them to receive their wages. Very few workers receive overtime wages. Because of COVID-19, Alang saw at least a 75% rate of reverse migration. The General Secretary of the Alang-Sosiya Ship Recycling and General Workers Association also has stated that this could have been avoided if regular employment and social security benefits were available to the workers (Khanna 2020).

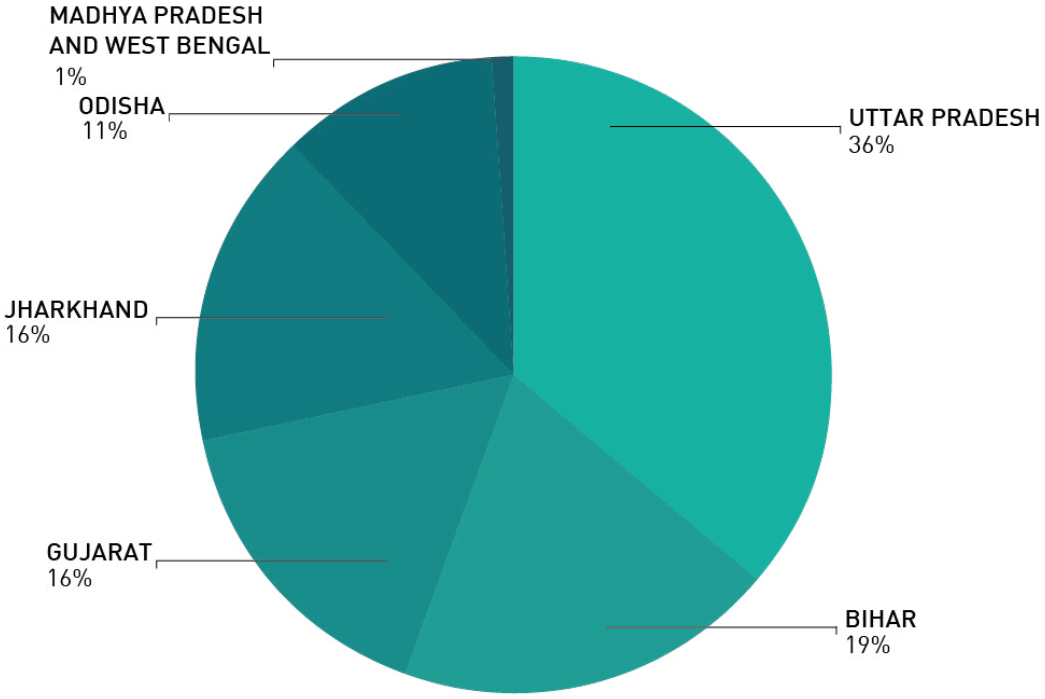


Figure 2: Home States of Migrant Workers at Alang-Sosiya
Source: (Sahu n.d.)

Despite the yard owners being mandated to provide housing, at least 89% of the workers do not receive it and are forced to live in shanties without adequate facilities (Sahu n.d.). This includes a lack of proper sanitation or drinking water facilities (ibid).

Reflecting the high incidence rate, the workers work in extremely hazardous conditions. At least 52% of the 103 workers surveyed by Sahu were injured at the workplace within the period of a year (Sahu n.d.).

There are frequent accidents, including heavy debris falling on them during the process of dismantling, fires and electrical short circuits. Workers are not protected against these since they are often not given proper Personal Protection Equipment, safety training, and there are not enough safety or warning signs. Only 30% of the workers surveyed stated that good quality safety equipment was available, 36% were dissatisfied by the quality of safety equipment and 16% did not receive any safety equipment (Sahu n.d.).

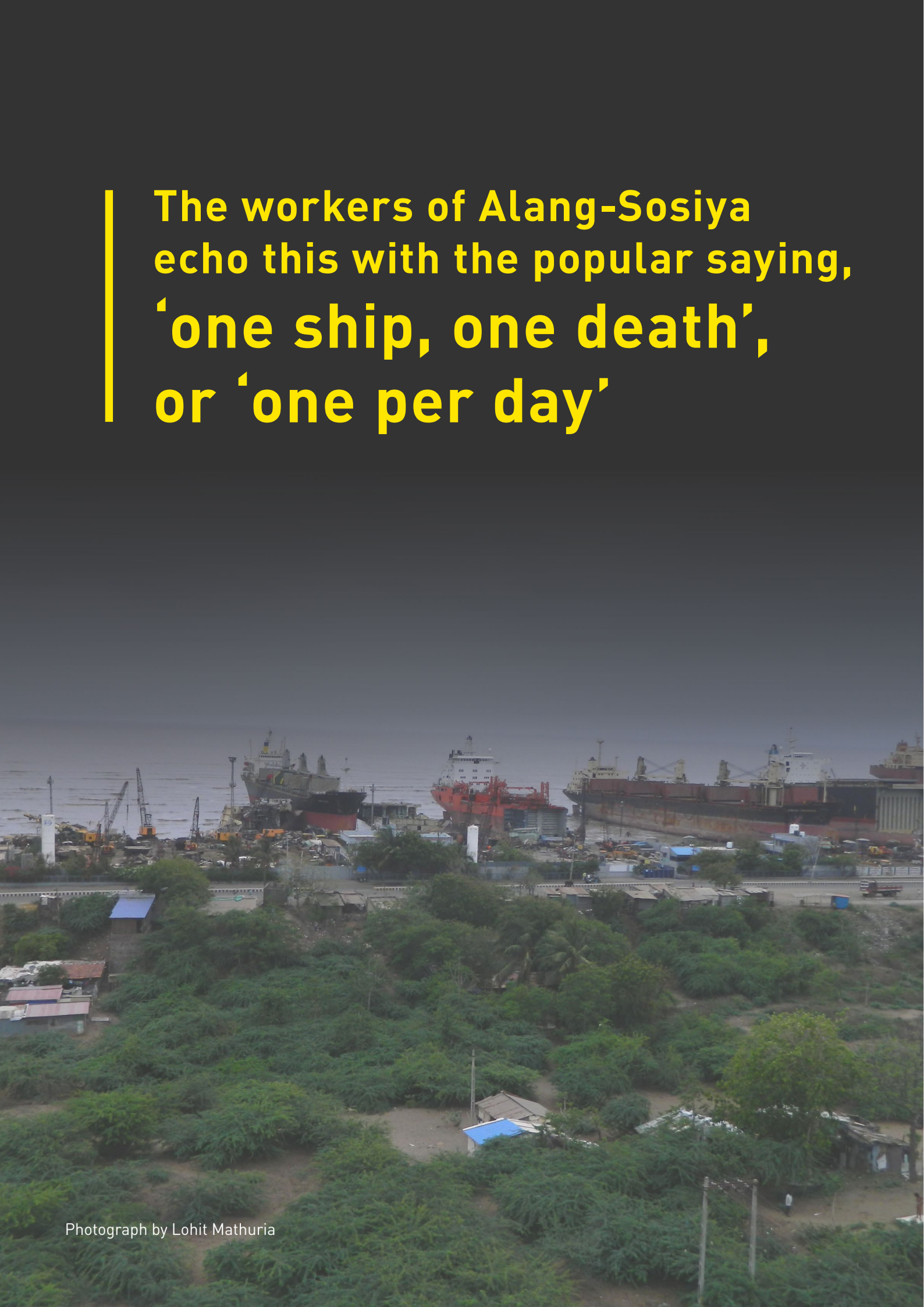
This issue is compounded by the lack of proper medical facilities in the area. For instance, only 60% of workers had access to first-aid equipment in their yard, 29% did not have access to, or knowledge of first aid equipment and 11% stated that the first-aid boxes were only for show. Of the previously mentioned 52% injured at the workplace, 61% received medical support from the yard owners at the workplace, and 39% did not receive any type of medical support (Ibid.). Local fishermen have also reported that severely injured workers are dumped at sea so that they drown (Demaria 2010). During the period of injury, workers rarely receive paid leave, forcing them to continue working, often aggravating their injuries (Sahu n.d.). At the core of this issue is the lack of proper hospitals and medical facilities in the nearby areas.

Even those workers who are not directly injured face severe health risks. They inhale toxic substances without proper respiratory or protective equipment. A study by the National Institute of Occupational Health conducted between 2006 and 2007 found 15 out of 94 workers suffering from very early stages of asbestos poisoning (NIOH 2007).

Despite the environmental and ethical hazards that they face, often workers and villagers do not have a voice. Worker unionising is discouraged, and in several yards, banned. The Recycling of Ships Act, 2019, furthers this issue by stating, in Clause 36, that courts could take cognizance of an offence under this act only on complaints by the Central Government, the National Authority and the Competent Authority or an officer authorised in their behalf[7] (Recycling of Ships Act 2019). By denying a voice to worker unions, NGOs, or villagers, environment and ethical violations may now go unnoticed and unpunished.

[7] Clause 36. "No Court shall take cognizance of an offence under this Act except on a complaint made by-
A. The Central Government
B. The National Authority or an office authorised in this behalf; or
C. The Competent Authority or an officer authorised in their behalf,"

The workers of Alang-Sosiya echo this with the popular saying, ‘one ship, one death’, or ‘one per day’



Photograph by Lohit Mathuria

CONCLUSION

With several of India's neighbours in Asia moving away from being dump zones, there is no better time than now for India to reassess its priorities vis-a-vis the ship recycling industry. With notable environmental and ethical implications, it is necessary for India to shift from beaching to more modern, and environmentally sound methods, like dry docks (as used in the European Union).

At the same time, this is also an opportunity for India to move away from being a leader in the ship recycling industry to one in the shipbuilding industry. Considering India's vision of becoming a $5 trillion economy in 2024, and the Prime Minister's clarion call for Atma Nirbhar Bharat, ship building (both merchant and military ships) has been forecasted to provide a higher rate of return as well as has the potential to boost support industries including many MSMEs (PIB 2019b, Harish and Singh 2019). Further, labour is hired and trained in better conditions, and at a higher industrial turnover rate. Considering ship building is a more formal industry, mandating proper infrastructure, the impact on the environment is also reduced.

Irrespective of whether this shift takes place, there is a need for a serious policy revamp when it comes to the ship recycling industry, especially when it comes to strengthening policy regarding labour rights and environmental protection.

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