

Ship-breaking Industries through the Lens of Dependency: A Comparative Analysis of Gadani & Chittagong Yards

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ABSTRACT

Ship breaking provides opportunities for raw material recycling, improved economic conditions for developing maritime nations, and economic security for local laborers. In the world, Gadani is considered Pakistan's third-largest breaking yard, located near the northeastern shore of the Indian Ocean, along with Chittagong in the same region. Bangladesh has one-third of the total number of shipbreaking yards worldwide, and thus holds the position of the second-largest breaking yard worldwide. This research investigates the similarities and differences in the respective economic impacts, working conditions, and regulatory regimes of these industries. Dependency theory examines how global economic structures perpetuate asymmetric power relations between the developed core and the developing periphery. "Dominance amidst dependence": both countries are performing well in terms of size and capacity in international markets, but remain dependent on Global North economies for the supply of end-of-life ships and machinery. This research focused on the financial dependency of both yards on the supplies of raw materials and labor resources. The paper highlights, based on a comparative qualitative approach, how core states like the EU, US, and Japan export costs to peripheral states, which have to bear socio-ecological burdens. In the absence of structural changes, both yards will remain dependent on external support, as local elites collaborate with global capital to maintain a controlled industrial regime.

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INTRODUCTION

Shipbreaking is the dismantling of decommissioned ships and reusing materials, a valuable but controversial industry in South Asia, where lack of infrastructure. Both places in countries, Bangladesh and Pakistan, as respectively turned into the largest national sites for their shipbreaking operations. Together with Alang, India, they account for some 80-90% of the world's ship breaking. These shipyards emerged in the late 20th century, as industrial countries began to dispose of older vessels, turning to places with cheap labor and lax environmental rules Sarraf et al. (2010). In Bangladesh and Pakistan, marginal economies within the world-system, ship-breaking offers steel, employment, and foreign currency, but at a considerable human and environmental cost. However, we see generally in South Asia, and it epitomizes the deep-seated inequalities of the contemporary international economic structure, wherein the developed core countries have continuously passed on environmental and social costs to developing peripheral nations while maintaining most economic benefits. Disassembling is mainly done manually in these remote areas, which entails many risks with very few safety and environmental precautions Iqbal et al. (2013). Even though the shipbreaking sector offers economic benefits, it perpetuates structural dependencies, maintaining developing countries like Pakistan and Bangladesh in a subordinate position within global economic dynamics (Cairns, 2017). Back in the 1980s, Gadani was a dominant industrial zone, had suffered a decline in its competitiveness due to political instability, stricter yet unevenly applied regulations, and inadequate infrastructure Bomhauer-Beins and Strüver (2017).

Apparently, the industry greatly contributes to national employment, steel availability, and economic expansion, establishing ship breaking as an essential future sector for Bangladesh Das and Shahin (2019). Then, which factors contribute to the decline of Gadani? even producing billions and aiding downstream industries, so both yards significantly boost the economy due to raw material for industrial setups as well as in construction, results occurs in structural instability, causing both states to be price tag in a global market that dominated by European and East Asian companies, as local communities endure the repercussions of environmental damage and human rights violations Sarraf et al. (2010). How do state policies and elites engage with global forces to either intensify or alleviate exploitation and dependency?

Thus, the research must focus on geo-economics and structural inequality, providing a critique of conventional development narratives that view ship-breaking as an unequivocal advantage for South Asia, while also putting forward methods for sustainable reform, such as regional cooperation through SAARC, strict enforcement of the Hong Kong Convention, and diversifying local steel industries to reduce dependence on recycled ship steel I. Ahmed (2020). This

article explores the extent to which dependency theory helps to explain the uneven power relations in this sector, employing a comparative methodology to make sense of both why Gadani and Chittagong are similar in having colonial pasts of exploitation and life beyond independence, yet also different in their response to global market demands. What are the relative as well as socio-economic and environmental effects in those regions?

This article argues that while the ship-breaking industry is a manifestation of global economic inequalities, it simultaneously presents an opportunity to redefine the core-periphery relationship if reform focuses on labour rights, environmental justice, and technological development over the profit motive. International Relations scholarship on postcolonial development, environmental geopolitics, and the political economy of extractivism would be bettered by such considerations. The approach through dependency theory has therefore underlined how global capital and waste flows impact local labor and regulations, as well as economic outcomes in Gadani and Chittagong.

RESEARCH METHODOLOGY

This paper adopts a comparative qualitative approach, based on dependency theory, to analyze shipbreaking industries in Gadani and Chittagong. This has allowed for an in-depth investigation into the ways in which systemic injustices operate and persist within two of the most significant and contrasting South Asian shipbreaking yards. The study performs a detailed comparative examination of key thematic areas to demonstrate patterns of core-periphery exploitation and varying national paths in global maritime recycling. Through a desk-based approach to assess secondary sources, such as academic papers, industry reports, non-governmental organizations, and regulatory standards.

THEORETICAL FRAMEWORK

Dependency theory posits that the international economic and political framework, marked by affluent nations at the center and developing countries on the outskirts, sustains inequality and hinders progress. Thus, when considering Prebisch and Frank, they contend that the global capitalist system is structured to allow for the extraction of surplus value from the Global South, thereby maintaining the wealth and supremacy of the Global North in global interaction Hout (2023).

To explore how Gadani and Chittagong function as marginalized regions within an unequal global economic system, despite their geographical and sociopolitical differences, where core nations like those in the EU, Japan,

and South Korea transfer the environmental and social consequences of ship recycling to South Asia, taking advantage of the area's lenient regulations, low labor expenses, and need for recycled steel to sustain a cycle of unfair trade.

However, Dewan and Sibilia (2024) highlighted the issue of over-reliance on the integration of peripheral economies into global markets that, in return, halt the genuine industrial progress, as demonstrated by the ship-breaking sector's dependence on hazardous, unskilled labor with minimal technological development or value addition. It further highlights extractive capitalism through the ecological imperialism of industry, as developed countries bypass stringent environmental laws like the Basel Convention by sending toxic-laden ships to South Asia, effectively turning the region into a sacrifice zone for global ship disposals Frey (2015).

Allowing beaching methods prohibited in Turkey and China, whereas diverging routes of the two shipyards emphasize the concept of historical materialism, as Bangladesh's strategic choice of relaxed regulations, such as those that have allowed Chittagong to prosper in the international market. Additionally, the theory's criticism of comprador elites, acting as local facilitators of exploitation between the center and periphery, is evident in the shipbreaking industry's supply chain, where local yard owners and tycoons' profit from informal labor earning less than five dollars a day, while partnering with transnational capital to resist reforms I. Ahmed (2020). Bangladesh needs the import ships to make the steel, and cannot afford the ban on its import as it did previously in the years 2007 and 2010. In this context, it becomes an indispensable reality for Bangladesh for the steel production, but along with ensuring safety measures Sujauddin et al. (2017).

Therefore, dependency theory as a theoretical framework is equally relevant to this study, which highlights the mutual advantages in worldwide capitalism. And also endorse that although shipbreaking industries may achieve local advancements, they are also influenced by notions of expendability and subservience. Hence, it is impossible to achieve it in isolation; rather, it requires essential reassessments, maritime environmental accountability, and workers' rights in an inequitable global framework.

SIGNIFICANCE OF THE STUDY

This study examines the role of wealthy countries in shifting the environmental and human responsibilities onto the developing countries. This study aims to analyze the shipbreaking industries through the prism of dependency theory. The developed countries are exploiting the developing world for their own vested financial interests. This leads to inequality and global exploitation. The

study further endeavors to explore these inequalities in terms of gain and loss, and success and decline, which in turn provides actionable policy suggestions for leaders to promote sustainable changes and emphasize decreasing systemic inequality.

South Asia Supremacy under the Dependency: Historical Ship-Breaking Initiatives

The British colonial policy across the Indian subcontinent provided oppressive economic practices to flow in the region, as it provided a market for British-manufactured goods while using the subcontinent for harvesting raw materials. After the subcontinent gained independence and was separated into India and Pakistan (later to include Bangladesh as well), the new countries of India and Pakistan were provided with some political maritime technology and investments. As newly independent nations, India and Pakistan received some political maritime investments and technologies, and they had some technologies and investments. British India had some maritime infrastructures (and major ports) such as Bombay, Calcutta, and Chittagong; however, these were all built and aimed at supporting the British Empire's imperial trade and were not built with the aim of benefiting Indian Industry Slaven et al. (2017). Rather, they depended on labor-intensive, ecologically damaging industries like ship-breaking, which emerged as a viable sector in the 1960s and expanded rapidly in the 1980s when stricter environmental regulations in the Global North made ship disposal prohibitively expensive Rahman (2013). The available port facilities after independence became the foundation for ship-breaking activities, as newly independent nations lacked the capital and technology to participate in more profitable maritime industries I. Ahmed (2022). The industry emerged in South Asia during the 1960s and expanded as global economic shifts created favorable conditions for dependency. As a result of increasing expenses in ship disposal driven by environmental regulations in Europe and North America, shipping firms sought more cost-effective alternatives. A combination of tidal shores in South Asia that permits large ships to conveniently berth, coupled with a surplus of affordable labor and minimal regulatory control, established a perfect setting Terao (2013). Hence, the change termed by dependency theorists as the growth of underdevelopment, where peripheral nations concentrate on risky, low-value industries that core countries neglect.

Dominance of Chittagong: Practices to Remain Competitive

Inspiring ascent of Chittagong as the leading global shipbreaking center, exceeding Gadani and other competitors, can be examined through theory,

demonstrating how structural imbalances in the global economic framework push developing countries to adopt exploitative industrial practices for their existence. Thus, the shipbreaking industry in Chittagong prospers mainly for two reasons: firstly, a deliberate easing of regulations aimed at drawing in foreign vessel dismantling; and secondly, an ongoing domestic need for low-cost steel, both of which bolster Bangladesh's peripheral position in the global capitalist framework that indicates colonial and post-colonial trade policies undermined local steel sectors, compelling Bangladesh to depend on reclaimed ship steel, a cheaper alternative to imports, even as this sustains technological stagnation Monir (2017).

Authentic resolution demands not only targeted modifications but also an entire reconstruction of maritime ownership and waste management structures, presenting a challenge to the central authority that dependency theory suggests the current global system will fiercely resist. The Chittagong case is significant because of its colonial linkages, where exploitation of labour is quite reachable. It has its own geopolitical realities because of its marginalized status, poverty, governance issues, and the international need for inexpensive steel to create an essential industry for the economy Sibilja (2019). East Pakistan and West Pakistan were the result of decolonization and, therefore, made them suitable options for waste processing industries such as shipbreaking after independence. Therefore, Chittagong is a significant case study in terms of regional competitions; colonial labor systems, reliance on low-cost, and disposable workers. But this over-reliance comes with the heavy price of modern-day exploitative shipyard environments with inadequate safety protocols Chowdhury and Islam (2024).

Gadani Decline: Pakistan's Traditional Approach

Gadani has a rich history of biggest shipbreaking yard in 1980's with the highest number of employees, around 30,000. But with the passage of time, it met with decline because of poor management and political turmoil. Pakistan is a developing country which faced political unrest, and fall of democratic governments. This political unrest gave impetus fragile economic policies. Therefore, these factors played major role in the decline of Gadani because Pakistan failed to execute the rules and regulations in true letter and spirit. This also decreased the system's competitiveness in shipbreaking, especially at the Gadani yard. Eventually, this domestic instability made the system truncated to respond global capitalist system, and became prey to the exploitative capitalist system Shazad and Javaid (2016). It shows that how political and economic factors contribute in making either responsive policies or submissive one. The integration and enforcement is indispensable to explore economic opportunities

and avoid over reliance on the imported steel.

However, the study also reflects that in addition to the government's efforts to align regulation with competition, another alignment in laws and regulations is integral. Unfortunately, there is dearth of supportive mechanism in terms of laws to protect the both, workers or environment. This affects the economic investment as business community feel reluctant to invest Boviatsis et al. (2022). This decline shows that developing countries miss the available opportunities because of internal differences and become a prey to the external forces. The Political instability remained a major issue for Gadani because of the Baloch insurgency. Therefore, security issues make the environment uncertain, and hamper local and foreign investors, and specifically shipowners who demand stability and secured regions with the approved yards Shahid (2025). Therefore, this study revolves around that how global capitalism ignore these ground realities of the developing states and rather exploit their weakness.

Comparative Analysis of Gadani & Chittagong Yard

Financial Results & Market Standing

Bangladesh has an immense history of shipbuilding and dismantles approximately 200 vessels annually. It offers cheap and skilled labour simultaneously, but being a developing state, like Gadani, it has poor management, a dearth of technical expertise, weak infrastructure, and a dearth of safety protocols. Over and above, the financial cost is maximum with the high interest rates and import charges. producing a notable environmental effect. This resulted in a lack of interest among the foreign investors as they considered the financial risks to be too high Shemon (2017). In both Chittagong and Gadani, significant economic inequalities are revealed.

This poor management works like a ripple effect, which can be explained through ecological imperialism. The unregulated shipbreaking activity polluted the Bay of Bengal, which surpassed the safe limits, and while Gadani's lesser pollution continues to impact groundwater for 15 surrounding communities. Both Pakistan's and Bangladesh's brokers are composed of shipyard magnates, steel industrialists, and political figures. These have control over economic policies and favor the capitalist and bourgeois class. On the contrary, Pakistan has fragmented elites who struggle to achieve a similar degree of exploitative development. However, Bangladesh's commitment to the Hong Kong Convention in 2023 shows its resilience to foster international safety and protection of labour standards, whereas Pakistan lacks both commitment and enforcement Khan et al. (2024). This is another ripple effect, making Gadani more deplorable than Chittagong because of a foreign exchange crisis.

Therefore, in both Chittagong and Gadani, the issue of resilience, commitment to the Hong Kong Convention, and historical expertise with international recognition make it more advantageous and trustworthy in shipbreaking.

Workforce Dynamics & Working Conditions

The effective policies to foster healthy workforce dynamics are missing in both Chittagong and Gadani. The reason behind this similar pattern is the weak political and economic system, which in turn affects the government's economic policies. Economic survival is the main objective that almost undermines the significance of workers' rights and well-being in both cases. But there is a sharp contrast in terms of acceptance and negligence. In the case of Bangladesh, this is the product of intentional policies, but in Pakistan, the negligence is the main reason.

The governments lack recognition of workplace safety regulations or offer adequate compensation for injuries or fatalities. Sometimes, the discontented workers are suppressed through harsh or temporary measures. The Labour Unions are weak in Bangladesh, as yard owners are rich and have politicians' support at the backend. For this reason, in Chittagong, demonstrations regarding unpaid salaries or life losses resulted in temporary solutions. However, the case is different in Gadani because it has more informal networks that support small protests regarding overdue payments, but these actions fail to address the sensitive issues of mistreatment.

The fragile economy also affects the health system, and in both cases. In Chittagong, workers experience extensive asbestos-related illnesses, heavy metal poisoning, and respiratory problems. Local hospitals lack adequate resources for care. Similarly, Gadani's reduced workforce encounters comparable health issues, including untreated chemical burns and extended exposure to toxic fumes, and less medical support because of Pakistan's insufficient public health infrastructure Qasim (2023).

The inadequate salaries are another common issue in both cases. Chittagong's dependence on casual workers, landless farmers, and Rohingya refugees receives extremely low pay. In contrast, Gadani recruits workers from the poorest areas of Pakistan. This heterogeneity forms a group of expendable laborers that impedes joint bargaining. The core idea of the dependency theory unfolds that central capitalist nations frequently transfer dangerous production activities to peripheral areas, thereby transforming at-risk communities into disposable assets in global accumulation efforts. In Chittagong and Gadani, it thrives in tough working environments that prioritize cost-cutting over worker welfare, underscoring the economic challenges encountered by developing

countries within global industrial frameworks. Nonetheless, workers continue to face ongoing dangers in the absence of sufficient safety measures Trout (2018).

Thus, the lack of adequate technology transfer in both sectors and the continued operation of igniting vessels without safety gear underscore Cardoso's critique of ongoing dependent development Cardoso (2019). On the contrary, European shipyards utilize robotic cutters and containment systems; shipbreaking in South Asia is still entrenched in outdated 19th-century practices, which preserves its ongoing marginal status.

Role of the Intermediaries & Industrial Subjugation

The role of intermediaries in the ship-breaking industry is very crucial, specifically in a neo-colonial economic structure. Instead of playing a role of mediator or facilitator, intermediaries are paving the way for the Global North, in terms of their clout, and shifting their environmental and industrial costs to the Global South. They often ensure the gain of profit for the capitalists and provide a shield to multinational corporations from liabilities. Intermediaries help multinational corporations evade international regulations such as the Basel Convention or the Hong Kong Convention, which restrict the export of dangerous waste, by temporarily handling decommissioned ships Nowinska (2018).

The function of intermediaries depicts the essence of the dominance of South Asia in ship-breaking based on dependency on local actors. The transfer of old, truncated vessels to countries of the Global South with less stringent regulations and more lenient safety standards puts them at the receiving end, with the least profitable segments of the global chain. The absence of a local regulatory framework on these intermediaries is a crucial strand. Since these intermediaries function from international financial hubs, and have global financial, legal, and logistical connections and therefore are beyond the binding of local regulatory frameworks in South Asia. Their function is particularly significant since they relieve shipping companies of legal and environmental obligations. This disparity results in an unequal share of responsibilities. Resultantly, the policies facilitate the penetration and dominance of global capitalism at the cost of the burden of inadequate policies on South Asian markets. Capital operations in South Asian markets rely on these intermediaries for financing, supplying, and market access.

Therefore, the role of intermediaries is indispensable, but it is controversial and without local legally binding. Their existence and function become partial to provide a covering shield to the influential shipowners, keeping them at bay from responsibilities, and perpetuating their control over South Asia. This heavy reliance on brokers in purchasing ships and auctions makes the process more

entangled and less transparent, and often results in informal credit agreements, thereby reinforcing a debt-related association Salgueiro (2015). Therefore, it shows that despite of dominance of South Asian maritime countries on the global shipbreaking sector in terms of volume, they do not have equal benefits in this asymmetrical relationship.

National Policies & Reforms Efforts

The fragile economy of Bangladesh and Pakistan reduces the viability of the shipbreaking sector and hinders the smooth progress. The absence of regulations in Gadani is also because to weak leadership. The struggle between the demand of the industries and the dearth of supply in terms of land, infrastructure, rules and regulations, and economic resources are the challenges need to be mitigated. The case is not much different in case of Chittagong where insufficient measures are the result of resistance from the parochial commercial interests at the cost of the vested interests of the nation. Although due to global and local pressure, Bangladesh has worked to enact multiple regulatory changes in Chittagong, such as the Bangla Ship Recycling Act (2018) signifies advancement in complying with the Hong Kong Convention. But corruption, a crippled economy, and resistance from corporate power are major obstacles in the practical manifestations of these reforms. The key players in the steel industry have own doubts about increasing checks and balances in terms of increasing cost, and strict regulations. The sense of insecurity can be sorted out through transnational governance, because the national policies alone will be insufficient to ensure the safety measures for workers and a suitable ecosystem in the yards. The absence of adequate resources, like effective weather tracking, affects the working culture as many shipbreaking companies function without appropriate safety measures. Such as least efforts were taken to enforce measures after 2020 explosion, and despite numerous deaths, no long-lasting measures were taken. The major reason behind this was economic pressures for affordable steel during Bangladesh's construction boom Bashir (2025).

In contrast, Pakistan does not have an effective shipbreaking policy, leading to the Gadani yard operating under outdated and weakly enforced regulations, as the industry mostly depends on intermediaries and informal contractors who exploit lax laws to increase profits, endangering worker safety and environmental health Mahmood and Tahir (2022). Although Gadani was one of the largest shipbreaking sites worldwide in the 1980s, it has faced a downturn because of inconsistent government backing, poor regulations, and a lack of investment in modern, safer dismantling methods. However, the Pakistan Shipbreaking Association establishes temporary pacts with officials; yet, due to the absence of enforceable regulations, incidents persist, and workers' rights are

mainly ignored. Environmental regulations, such as those set by the Pakistan Environmental Protection Act (EPA), are infrequently upheld in Gadani, leading to unchecked pollution of marine ecosystems Shazad and Javaid (2016).

The difference between regulation and profit is evident; while policies are theoretically enacted, their effectiveness is undermined by widespread corruption and a focus on industrial growth that jeopardizes public health and environmental safety.

Geopolitical Environments & Prospective Pathways

In contrast, political instability in the area, administrative corruption, and lack of regulatory structures have rendered Gadani uncompetitive and unable to compete with Bangladesh's intense cost-reduction efforts or adapt to evolving global environmental standards. Bangladesh appears steady as it prepares to define its position as a minimal sacrifice zone, with business heads and politicians firmly resisting changes to maintain profit margins, despite external influences from the EU's Ship Recycling Regulation and environmental organizations. Simultaneously, Gadani faces existential threats unless Pakistan manages to stabilize its economy, implement necessary labor and environmental protections, and upgrade its docking facilities Ahmad (2024). Bangladesh has fostered development by easing regulations, offering tax incentives, and opposing global environmental pacts. As a result, the strategic use of exploitative economics has turned Chittagong into an attractive site for European and Asian shipowners wanting to dispose of hazardous ships at minimal cost. Geopolitical factors related to both sectors underscore how global power shifts and internal unrest influence their varied futures. Chittagong bolsters its position via a strategic partnership between Bangladesh and international capital, while Gadani's deterioration mirrors the persistent political and economic instability in Pakistan. Currently, Bangladesh is the leading shipbreaking center worldwide, fulfilling approximately 50% of its national steel needs N. Ahmed (2023).

Therefore, Bangladesh's strong ties with Chinese and Middle Eastern brokers shield Chittagong from Western demands for regulation to a much greater extent than Gadani, which is remote and has no other markets to fall back on; this, along with internal divisions, Baloch insurgency, and financial woes within Pakistan, has hindered the latter's pursuit of cohesive economic policies. Future trends are likely to exacerbate these patterns of dependence: Chittagong is now replacing Bangladeshi laborers with the even more desperate Rohingya refugees who work for less than \$3 a day, and any possible resurgence at Gadani awaits foreign investment, which the major nations will only provide if Pakistan

further liberalizes its labor and environmental laws. The recent blacklisting of the Chittagong yards under the EU's Ship Recycling Regulation serves as an example of how major nations use ecological concerns to rearrange, though not remove, unequal exchange; somewhat cleaner vessels are indeed being diverted to other peripheries like India and Turkey, but the very filthiest continue to end up in Bangladesh Hossain and Hoque (2024).

While geopolitical factors bolster world-systems theory, Bangladesh's political stability and focused export strategy allow it to optimize its position as a peripheral player. No industry can escape dependence without confronting the global maritime system head-on. Chittagong's growth and Gadani's stagnation exemplify how capitalism's core-periphery model perpetuates itself through spatial tactics that shift risks to the global South. Even research validates the main assertion of dependency theory that peripheral industrialization does not foster development but rather translates underdevelopment into different forms, illustrated by shipbreaking, which acts as a contemporary version of colonial extractivism, with the postcolonial state actively supporting its reliance on global capital.

CONCLUSION

Yards are deeply involved in the most hazardous kind of shipbreaking because of their positions in the global economy. If conditions remain unchanged, South Asia's shipbreaking yards will continue to be an essential source of revenue for the needy and a vivid example of exploitation within an unjust global economy. The challenges faced by Gadani and Chittagong highlight the wider issues confronting post-colonial economies trapped between harmful, exploitative sectors and economic decline. Yards illustrate different facets of a common issue: the way global capitalism establishes and preserves areas of exception where standard regulations for environmental safeguards and workers' rights are ignored. Their rivalry shows that dependence is dynamic; rather, it involves ongoing pressure to become increasingly exploitative to maintain market standing. Comparatively indicates that although particular national circumstances are important, the essential dynamics of core-periphery relationships influence both regions in largely similar ways. Even not indicate any progress towards the eco-friendly recycling practices implemented in Turkey or China. Tackling this addiction demands a comprehensive overhaul of international maritime regulations, encouraging major nations to adopt responsible waste management practices and support sustainable recycling developments. Results suggest that shipbreaking establishes enclave economies, areas that are geographically detached from broader economic advancement, as the yards generate revenue without enhancing general

industrial growth. As a result, the research effectively highlights the problem but faces difficulties with its deliberate political remedies and coalition-building in South Asia, diminishing the chances of a Bangladesh-Pakistan partnership to confront global capital and its representatives.

RECOMMENDATIONS

- Yards ought to adopt blockchain-enabled salary payments to avoid exploitation and align practices with the Hong Kong convention. While not directly addressing salaries, the Convention's recommendations regarding worker safety, workplace conditions, and suitable equipment could have an indirect impact on wages.
- PMSA supervision for rescue missions and construction migrant worker accommodations with necessary sanitation, particularly for Gadani Yard.
- Eliminate child labor through education grant initiatives and implement toxic gas detection systems in tanker zones to enhance working conditions in Chittagong.
- Bangla-Pak shipbreaking industries need to work together, create minimum price limits per ton according to real costs, and form a shared blacklist for dishonest shipowners to remove the intermediary function.
- Gradual updates relate to protecting market share, as well as employee retraining initiatives focused on maritime technology. Restoration of the environment funded by past polluters will create the basis for the South Asian Ship Recycling Research Institute.
- The Hong Kong Convention needs to be implemented with independent global certification for all facilities to guarantee verifiable adherence to safety and environmental standards before ship recycling.
- Turkey can offer sustainable ship recycling technology and secure advantageous agreements with Europe. In the meantime, China might fund sophisticated docks and create new opportunities for recycled steel.
- The Bangla-Pak should focus on empowerment instead of dependencies, fostering technology transfers and fair financing to position Gadani and Chittagong as top green recycling centers globally.

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