

Science for Environment Policy

The future for Bangladeshi ship recycling: a critical scenario analysis

A large proportion of ships are recycled on the beaches of developing countries in Asia. This study considered shipbreaking in Bangladesh, using critical scenario analysis to explore different futures for the industry and its workers. The paper suggests that a radical shift in socioeconomic and political structures is needed to enable environmentally sound practices while retaining employment opportunities for local people.

Shipbreaking has become a cornerstone industry in south Asia, partly as a result of increasing environmental awareness and regulations on hazardous waste disposal in more developed nations. It is economically beneficial and often simpler (in regulatory terms) to send ships to Asia rather than to dismantle them in Europe. However, ship-recycling practices are rudimentary and often unsafe.

In the shipbreaking yards of Bangladesh, for example, ships are driven ashore at high tide (a practice known as 'beaching') before being broken up by workers who often lack basic safety equipment and are at risk not only from industrial accidents, but from long-term inhalation of carcinogenic toxins, such as asbestos. The beaching process is also highly toxic to the marine environment, leaving traces of oil, asbestos and persistent organic pollutants on beaches. These factors, alongside the wide use of child labour, has led western governments and NGOs to condemn the practice of beaching and to implement international controls, such as the [Basel Convention](#), to prevent it.

This paper explored the current and possible future status of shipbreaking in Bangladesh, with a particular focus on the outlook for workers. The shipbreaking industry involves many different stakeholder groups and perspectives and complex economic connections.

In order to approach the complex issues and uncertainty surrounding the future of shipbreaking, the author applied scenario analysis — a framework for investigating complex and ambiguous business issues. Scenario analysis involves challenging conventional thinking in order to generate possible futures and begins by identifying the driving forces (e.g. political, economic or social factors) that will affect the issue. In this case, the driving forces were the effectiveness of global regulation and commitment to 'green practices' in Bangladesh.

Following a broad comprehensive review of published literature on the subject¹, four scenarios were developed:

- *Global Cooperation*: Global regulation combined with national commitment (best case)
- *World Divided*: Global regulation without national commitment
- *Bangladesh Goes Alone*: National commitment without global regulation
- *Business-as-usual*: Failure of both global and national control and commitment (worst case)

The impact on and response to each scenario was estimated for major stakeholder groups, including yard workers and owners in Bangladesh, yard workers in other developing nations, consumers and ship owners in the developed world and NGOs.

The researcher says the 'best case' scenario of effective global regulation and a new 'green' industry in Bangladesh may not be viewed positively by all stakeholders, as it is not likely to provide employment for the thousands of current workers.

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(continued)

If there is global regulation but no commitment in Bangladesh, investment will likely go elsewhere, also causing job losses. As many of the current workers have had few education opportunities and come from rural areas of Bangladesh where there are few alternative job opportunities, many have protested against such changes. Although there is the potential for safer and higher paid jobs in a new 'green' industry, the researcher says this could only involve a minority of the current workers.

Similarly, ship owners may oppose the change, as they would be responsible for the cost of safe and environmentally friendly disposal. The cost would translate into higher shipping costs and thus higher commodity costs for producers and consumers, which may not be desirable in the competitive global market.

The paper concludes that — regardless of the future status of the industry — the situation for the majority of workers in Bangladeshi shipbreaking yards is unlikely to change. The author suggests that, with no commitment to or investment in alternative employment, there is no best case situation for the workers who face the risk of accident, illness or death in the present industry, or unemployment outside of it. In all four scenarios modelled, the workers fare the worst, and have little power to change their situation.

Although none of the scenarios presented here are a predicted, likely future, the findings do identify important issues and perspectives to consider when discussing how developed world shipping companies dispose of their redundant vessels and how developing countries engage in ship recycling.



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