Proceedings of the International Conference on Industrial Engineering and Operations Management

Publisher: IEOM Society International, USA DOI: 10.46254/BA08.20250017
Published: December 20, 2025

Assessment of Global Ship Recycling Status and Future Prediction

Rear Admiral Dr Khandakar Akhter Hossain
Vice Chancellor, Bangladesh Maritime University, Dhaka, Bangladesh
admiraldrakhter@bmu.edu.bd

Abstract

Ship recycling refers to the dismantling and recycling of End-of-Life (EOL) ships, which is widely recognized as a sustainable global practice. Thousands of obsolete ships are recycled annually, mainly by a few Asian countries. In Bangladesh, ship recycling has evolved from informal, beaching-based operations into a globally significant sector. Currently, the country accounts for over 45% of global ship recycling tonnage, making it among the top ship recycling hubs in the world, alongside India and Pakistan. Local industry provides huge employment to semi-skilled laborers, particularly in poverty-prone coastal areas. It also supplies essential raw materials—such as scrap steel—to local industries. However, the sector faces challenges in terms of coastal zone management, including environmental degradation, weak law enforcement, and occupational health and safety concerns. While fully green ship recycling—aligned with stringent European standards—remains expensive, a more viable and environmentally responsible model is possible by upgrading existing beaching methods commonly used in South Asia. Findings highlight significant shortcomings in adherence to the Hong Kong Convention (HKC), with only approximately 40% of operational ship recycling yards currently certified. A comparative analysis reveals that India has successfully modernized around 120 HKC-compliant yards, supported by substantial governmental and donor investments, while Pakistan is actively upgrading its Gadani facilities through a large-scale financial initiative. This study examines the local and global ship recycling industry to conduct a comprehensive assessment and to predict the sector's future.

Keywords

Compliance, HKC-2009, SRFP, EU SRR, ship recycling policy.