

ENVIRONMENTAL UPGRADING IN GLOBAL VALUE CHAINS: THE POTENTIAL AND LIMITATIONS OF PORTS IN THE GREENING OF MARITIME TRANSPORT



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This study examines the motivating factors and likelihood of sustainable tool implementation amongst ports seeking to implement voluntary initiatives in environmental management.

APPROACH:

Data for this research was collected by studying five ports with clear ambitions of becoming sustainability leaders through two phases. In the first phase, the researchers identified a comprehensive list of port tools for reducing air emissions and examined which tools the selected ports have adopted. This information was then triangulated with recent discourses in air emissions in the maritime business community as reflected in articles published in the leading global shipping newspaper, *Lloyd's List* since 1990. In the second phase, interviews were conducted with the key players involved in the implementation of these tools in the selected ports

MAIN FINDINGS:

- Increasing tool complexity is negatively correlated with environmental tool adoption.
- Increasing emission visibility is positively associated with environmental tool adoption.
 - Local air pollution in particular is generally highly visible for port residents, and remains the main concern for port authorities.
 - By contrast, GHG emissions and air pollutants from ships at sea have low visibility and receive less attention.
- Port authorities do have the capacity of handling organizationally complex tools, but will only implement them when emission visibility is high.
- This research ultimately argues that while there is evidence for ports worldwide to have the potential to increase their sustainability tool implementation, stricter regulation by the IMO or regional bodies may be necessary to better facilitate emission visibility and thus help ports to be more effective as promoters of environmental upgrading.