Green Shipping: Governing Environmental Improvements in Maritime Shipping

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Shipping in the Sustainability Spotlight

Lower emissions on the high seas
Global regulations to limit carbon dioxide from the shipping industry are overdue.
31 October 2017

Uncharted Territory
The planet is sunk without cleaner cargo ships.
grist.org

True scale of CO2 emissions from shipping revealed
Scale of climate change emissions from shipping is nearly three times higher than previously believed, says leaked UN report
amp.theguardian.com
Emerging Sustainability Rules

- CO₂
- NOₓ
- Noise
- SOₓ
- Invasive species
- Hazardous materials
Shipping Policy-Making Challenges

- Transboundary & mobile industry
- Low issue visibility
- Diverse air, land, water impacts
- Technology trade-offs
- Sector variation (container, bulk, tanker)
- Multiple governance layers
## Rise of 'Green Ship’ Private Governance

<table>
<thead>
<tr>
<th></th>
<th>Ship-types</th>
<th>(# ships)</th>
<th>Issues covered</th>
<th>Scoring framework</th>
<th>Membership fee</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clean Cargo Working Group</strong></td>
<td>Container, Dry bulk, ro/ro, cruise</td>
<td>(2300)</td>
<td>CO2, SOx, PM, NOx, Water and Waste; Chemical use; Hull-fouling</td>
<td>Yes (Based on Nox, Sox, CO2 and access to shore power in port)</td>
<td>Fee for all members</td>
<td>Partly performance data received from ship-owners; Partly vessel design specification</td>
</tr>
<tr>
<td><strong>Clean Shipping Index</strong></td>
<td>Container, Dry bulk, ro/ro, cruise</td>
<td>(2,000)</td>
<td>CO2, SOx, NOx, Water and Waste; Chemical use; Hull-fouling</td>
<td>Yes (Based on CO2, Nox, Sox, Chemical and water-use/waste)</td>
<td>Free for cargo owners; Costs for ship-owners for data verification</td>
<td>Partly performance data received from ship-owners; Partly vessel design specification</td>
</tr>
<tr>
<td><strong>Environmental Ship Index</strong></td>
<td>Container, dry bulk, general cargo, ro/ro, cruise (&gt;2.000)</td>
<td></td>
<td>CO2, SOx, PM, NOx, Water and Waste; Chemical use; Hull-fouling</td>
<td>Step rating (with four levels); For CO2 the scheme only asks if emissions are calculated or not (Yes/no)</td>
<td>Information not available</td>
<td>Partly performance data received from ship-owners; Partly vessel design specification</td>
</tr>
<tr>
<td><strong>Green Award</strong></td>
<td>Dry bulk, tankers, inland barges and LNG (&gt;1.500)</td>
<td></td>
<td>CO2, SOx, PM, NOx, Water and waste, anti-fouling pant</td>
<td>Information not available</td>
<td>Shipowner fee</td>
<td>Information not available</td>
</tr>
<tr>
<td><strong>RightShip</strong></td>
<td>Container, dry bulk, tankers, general cargo, ro/ro, cruise (60,000)</td>
<td></td>
<td>CO2</td>
<td>Step rating (with seven steps)</td>
<td>Subscription fee for detailed data sets</td>
<td>Based on vessel design specifications</td>
</tr>
<tr>
<td><strong>Triple-E</strong></td>
<td>Container, dry bulk, tankers, general cargo, ro/ro, cruise (33)</td>
<td></td>
<td>CO2, SOx, PM, NOx, Water and Wastewater; Chemical use</td>
<td>Step rating (with four levels)</td>
<td>One time fee for ship owners when rating is issued</td>
<td>Partly based on vessel design specifications; partly based on performance data</td>
</tr>
</tbody>
</table>

Source: Sustainable Shipping Initiative (www.ssi2040.org)
Collaborative Governance

Public Regulation (IMO, State governments)  Private Standards

Agenda-setting  Rule-making  Implementation  Enforcement
IMO Orchestration

- Set goals
- Keep watch on private governance to ensure policy alignment
- Monitor private decisions to advance policy
- Facilitate information sharing
- Leverage private inspections & reporting transparency
Conclusion

The pathway to global shipping environmental performance improvement will require governance innovation. This includes:

- Clear goals
- Collaboration between sectors
- A mix of policy instruments
- IMO orchestration.
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