

Charting an India-Singapore Green Maritime Corridor

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Summary

The Singapore-India Green and Digital Shipping Corridor can accelerate cleaner fuels, port electrification, digitalisation, workforce development and investment, strengthening bilateral cooperation while supporting global maritime decarbonisation.

The International Maritime Organization's 2023 strategy places international shipping on a net-zero trajectory by around 2050, with alternative fuels expected to supply at least five per cent of shipping energy by 2030. For maritime trading states, decarbonisation is, therefore, not only an environmental obligation but also a test of industrial readiness, regulatory credibility, trade competitiveness and energy security.

This creates a natural area for India-Singapore cooperation. India is integrating maritime development with its green industrial ambitions and goal of becoming a global maritime power by 2047 while Singapore views decarbonisation as essential to preserving its position as a leading maritime hub. India offers renewable-energy scale, industrial capacity and future fuel production; Singapore brings port expertise, market access, international connectivity and innovation. How can these complementarities advance India-Singapore maritime decarbonisation?

India

India's maritime decarbonisation agenda has expanded. In 2015, the government launched its flagship 20-year port development initiative – [the Sagarmala programme](#) to harness India's 11,099 km coastline and 14,500 kilometres of navigable waterways to restructure India's maritime logistics ecosystem, reduce shipping costs, increase maritime and digital connectivity, and improve coastal infrastructure. This programme was followed first by [Maritime India Vision 2030](#) and the [Maritime Amrit Kaal Vision 2047](#), both of which placed green energy, green ports, capacity building at the centre of maritime transformation. India has also moved towards a proposed [National Green Shipping Policy](#) which sets a target to transition the country's maritime sector towards net-zero emissions by 2070. New Delhi also introduced a national Green Ship Certification framework that requires all new vessels to be fuel-flexible and energy-efficient.

Despite progress, major gaps remain in India's green shipping strategy. India lacks a consolidated and transparent national green shipping framework that integrates domestic shipping, international trade logistics, port operations, finance, and workforce transition into a single policy architecture. The funding base is narrow, coordinated fuel supply chains remain underdeveloped, there is need for workforce upskilling and a clearer mechanism to connect domestic manufacturing with maritime demand.

Singapore

Singapore's maritime decarbonisation strategy is pragmatic and internationally embedded. Its policy is shaped by industry demand, economic competitiveness, and domestic climate imperative. In 2022, the Maritime and Port Authority of Singapore (MPA) launched the [Maritime Singapore Decarbonisation Blueprint](#), targeting a 15 per cent reduction in emissions by 2030 and a 50 per cent reduction by 2050, compared to 2021 levels. As a maritime hub with limited land and energy resources, Singapore cannot afford to bet on a single fuel pathway.

Singapore has backed its decarbonisation strategy with concrete initiatives. In 2011, the MPA launched an S\$ 100 million [Maritime Singapore Green Initiative](#) to supplement the green energy transition efforts and decarbonise port operations. Singapore's bilateral corridor strategy has established nine Green and Digital Shipping Corridors, including with India, to mobilise private-sector demand, improve digital technologies, and accelerate green fuel adoption. These corridors allow Singapore to shape global standards and infrastructure jointly with like-minded partner countries. A critical yet often overlooked constraint is the shortage of workers trained in clean-energy and port technologies. Singapore is addressing this gap through the Maritime Energy Training Facility (METF), which aims to train around [10,000 maritime personnel by 2030](#).

India-Singapore Cooperation in Green Shipping and Maritime Decarbonisation

In September 2025, India and Singapore signed a memorandum of understanding formalising the [Singapore-India Green and Digital Shipping Corridor](#) to develop infrastructure and technologies for zero or near-zero emission fuels, as well as digital information exchange and joint research. For India, the corridor offers a pathway to connect its renewable energy potential, industrial capabilities, and information technology strengths with an established global maritime hub. For Singapore, the initiative creates access to a stable supply base for alternative fuels, a large maritime market, and an innovation partner for its hub-port ecosystem. Both governments are aiming to build a corridor which not only promotes green transition and accelerates low-emission technologies but is also digitally integrated and operationally efficient. Bilateral cooperation can be expanded further:

1. **Power and port electrification:** India has solar potential at ports, energy banking options through the grid and growing port electrification needs, while Singapore has operational experience in efficient terminal management and digitalised port processes.
2. **Green fuel value chain:** Link India's green fuel production capabilities with Singapore's bunkering and certification expertise that could include green ammonia, methanol and green hydrogen, supported by an integrated system of common certification, offtake guarantees, and port-readiness planning.
3. **Digitalisation:** Both countries can deepen digital port clearance, bunkering documentation, and just-in-time vessel arrival systems. The corridor can be used to

connect ship reporting, port call optimisation, emissions data sharing and customs coordination to reduce emissions while improving efficiency.

4. **Workforce training:** A joint workforce programme could train seafarers and port operators for handling alternative fuels, retrofitting, and port operations. India's experience producing hydrogen fuel-cell vessels, and Singapore's MEFT training programmes can support cross-border training in fuel handling, port safety and certifications.
5. **Financing:** India's decarbonisation requires more capital. Singapore has established a financial and maritime service ecosystem. A blended-finance vehicle, green credit mechanism or corridor-linked investment platform could lower the cost of pilot projects and de-risk early movers.

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