Background

With remarkable economic growth in the last decade, India has become one of the fastest growing major economies in the world. Further, with continued growth in economic activities and urbanisation, transport demand of both passenger and freight is poised to rise. India handles 4.6 billion tonnes of goods each year, amounting to a total annual cost of INR 9.5 lakh crore, and provides livelihood to more than 22 million people.\(^1\) The freight movement in India majorly relies on road (70%), and rail (26%), followed by aviation (2%) and waterways (2%). Even though India’s transport sector contributes to approximately 5% of GDP, it accounts for more than 13% of CO\(_2\) emissions and more than 15% of the final energy consumption. At the current rate, freight related emissions are expected to quadruple by 2050, from the year 2021.\(^2\)

To decarbonise its freight sector, India has taken several steps, including fuel efficiency improvement norms for heavy-duty vehicles (HDVs), promotion of electric vehicles through policies (FAME-I, FAME-II, PLI schemes), alternative fuel technologies (CNG/CBG/LNG/Biofuels/Hydrogen), development of Dedicated Freight Corridors (DFCs), and Roll On-Roll Off scheme. Policies such as Gati Shakti Multimodal Cargo Terminal (GCT), Green Port Guidelines, and National Logistics Policy focus on creating a robust and efficient logistics ecosystem across the country. In 2023, India created a high-level ambition group for framing a policy roadmap towards zero freight emission in the country. In-line with India’s national commitment of achieving net zero by 2070, there is a need to tap opportunities for reducing carbon emissions from freight sector (road and rail particularly).

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\(^1\) RMI 2021, Fast Tracking Freight in India (https://www.niti.gov.in/sites/default/files/2021-06/FreightReportNationalLevel.pdf)

\(^2\) T E R I. 2020. Road map for Electrification of Urban Freight in India. New Delhi: The Energy and Resources Institute
Objectives

To strategize low carbon pathways for freight sector in India, TERI is organising a thematic session on “Decarbonising Freight in India: Turning Ambition to Action”. The focus of this session will be on initiatives to curtail GHG emissions from freight sector in India. This session will delve into India specific technology advancements, as well as sector-specific barriers related to freight decarbonisation. Panellists for the thematic track will include sectoral experts (road, rail, and waterways) from ministries and departments, nongovernmental organisations (NGOs), original equipment manufacturers (OEMs), research institutes, and other private sectors (including freight carriers).

Guiding Questions

- What are the diverse policy and technology advancements/clean energy solutions available for decarbonising freight in India?
- What are the sector-specific barriers and concerns related to clean freight operations?
- How can we leverage market-based mechanisms such as carbon credits to encourage adoption of low carbon measures in freight sector?
- How are original equipment manufacturers (OEMs) supporting in decarbonising freight (primarily MHDVs and shipping)?
- How can multi-modal integration serve as a vital component for freight decarbonisation in India? What are the key levers to facilitate such integration?

About the World Sustainable Development Summit (WSDS)

The World Sustainable Development Summit (WSDS) is the annual flagship Track II initiative organized by The Energy and Resources Institute (TERI). Instituted in 2001, the Summit series has a legacy of over two decades for making ‘sustainable development’ a globally shared goal. The only independently convened international Summit on sustainable development and environment, based in the Global South, WSDS strives to provide long-term solutions for the benefit of global communities by assembling the world’s most enlightened leaders and thinkers on a single platform. The 23rd edition of the annual flagship event of The Energy and Resources Institute (TERI)—the World Sustainable Development Summit (WSDS)—will be held from 7-9 February 2024 in New Delhi. The Summit deliberations will focus on the umbrella theme: Leadership for Sustainable Development and Climate Justice.