



WORLD SUSTAINABLE DEVELOPMENT SUMMIT 2022

**TOWARDS A RESILIENT PLANET:
ENSURING A SUSTAINABLE AND EQUITABLE FUTURE**

February 16-18, 2022 (Virtual)



THE ENERGY AND RESOURCES INSTITUTE
Creating Innovative Solutions for a Sustainable Future

Strategies to Decarbonize Transport Sector – Multi-Sectoral Approach

THEMATIC TRACK SUMMARY

Venue: Sundarbans

Date: February 16, 2022

Time: 03:30 PM - 05:00 PM (IST)

Suggested Citation

World Sustainable Development Summit (2022), Strategies to Decarbonize Transport Sector – Multi-Sectoral Approach, Thematic Track Summary (Rapporteurs: Piyush Saxena and Shiren Pandita), New Delhi: The Energy and Resources Institute.

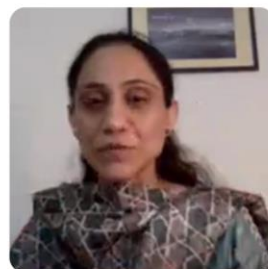
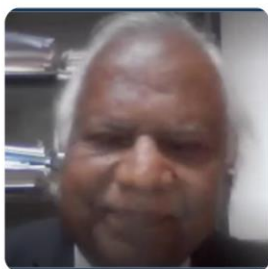
Actionable Messages

Message 1: There is a need for enhanced financial allocation towards deployment of city buses to cater the growing demand and achieve desirable modal shift in favour of public transport.

Message 2: It is critical to have long-term zero emission vehicle deployment targets as well as the need for continuous public investments in EV infrastructure.

Message 3: Indian Railways should focus towards achieving net zero emission targets and improving modal share in both passenger and freight transportation.

Message 4: It is important to include industries stakeholders, NGO's, scientific institutes and citizens to give mutual commitments and support to carbon neutrality agenda.



Narrative

The session on Strategies to Decarbonize Transport Sector – Multi Sectoral Approach was chaired by **Mr Shri Prakash, Distinguished Fellow, TERI** and moderated by **Mr Sudhendhu J Sinha, Adviser, Transport, NITI Aayog**. The session was conducted with the main agenda to discuss the action pathways to decarbonize the transport sector through a multipronged approach. This was followed by an official launch of the two policy briefs on strengthening private partnerships for developing rail freight terminals & freight forwarder scheme by **Ms Jaya Varma Sinha, Addl. Member, Traffic, Railway Board**. The session also witnessed the launch of the National Transport Decarbonization Council (NTDC) which is one of the recent activities being carried out by TERI. **Mr Sharif Qamar, Associate Fellow, Transport, TERI** set the context of the session while also highlighting the overall work done in the two policy briefs through a presentation. He highlighted the key points, such as the current status of freight terminals in Indian Railways while emphasizing on the policy results that showed higher share of Good sheds in number of freight terminals, while its contribution being the lowest to the freight movement. He also mentioned the key challenges faced by the private operators who are operating the freight terminals and good sheds in the country and how they are being mitigated through various policy interventions such as the 'Gati Shakti Cargo Terminal Policy'. He also talked about the 'Freight Forwarder Scheme' and how its expected outcomes have not been achieved. He said "The policy brief captures these short comings and tries to give an outlook as to what could be done in the future."

Ms Jaya Varma mentioned that the Government of India while determined to lead the trajectory of India's economic growth is also committed to achieve the target of net zero by 2070. She said that the key component to strategies this future target would be to decarbonize the transport sector. She emphasized that the transport sector plays a pivotal role in the country's economy but it is also the principal consumer of energy and a leading source of Green House Gas emissions. Hence, railways in this sense plays a crucial role as it is a far greener mode of transport for the economy. Bringing the Railways perspective to the session, **Ms Jaya Varma** further reiterated that the Indian Railway carries 28-29% of the total freight ecosystem and the ratio is gradually declining. She also mentioned that the challenge of a skewed traffic pattern in railways has upscaled the overall threats in the sector. She gave the example of the 7 major routes of the Indian Railways which only comprises of 16% of the total rail network but carries 60% of the traffic, indicating oversaturation of the traffic route. Apart from that, she also emphasized the consistent issue of railways being a non-competitive entity, especially in the non-bulk sector due to its poor fleet to freight ratio and its categorization as public good, and how it becomes hard to make amends to the freight tariff structure. To overcome this issue, she highlighted the aspirations of the Government of India which targets for a modal shift towards railways and to achieve 45% modal share in freight transport while aiming for net zero by the year 2030. She said that this alone would decrease the total emissions by 60 million tons. To achieve this, she said "for the last 3 Years, Indian Railways has been focusing on policy initiatives that revolve around the idea of 'Demand pulls and Supply Push' which includes freight concessions, ease of doing business, inviting private investments and proposal to integrate postal services with Indian Railways to increase the outreach". She also mentioned that Railways has taken a big step in mobilizing its resources through the help of Information Technology and has shifted from the traditional ways to online version, hence reducing the passenger trips considerably. She highlighted the role of pandemic in making Indian Railways more sensitive towards the demands of non-bulk customers and piecemeal demands while giving an example of its ongoing project called the 'Vyapar Mala express'. Furthermore, she discussed the Indian Railways vision for super critical and critical projects, which are proposed to be completed by December 2022 and March 2024, respectively.

Prof Ashish Verma, Professor, Indian Institute of Science, Bangalore further highlighted the importance of carbon neutrality in the session and suggested that "the strategies for carbon abatement play a crucial role in the process of achieving net zero emission. Although carbon neutrality is important, we must take actual mitigation measures into account". He also gave the case example of Germany where the authorities had not been able to increase rail share, therefore, they re-worked their policy framework for decarbonizing transport sector. He suggested that "various studies have shown emissions will be doubled by the year 2030 and our focus has largely been in decreasing passenger emissions even though the share of freight emissions is greater than the passenger emissions". While adding to the need of containing carbon emissions, **Ms Akshima Ghate, Senior Principal, RMI India** recommended better augmentation of public transport so that the emissions could be sustained at year 2020 levels. She highlighted the need to explore regulatory framework in the policies in the next 1-2 years. She suggested that "setting up long term zero emission vehicle deployment targets is the need of the hour". She said that even though the demand for personal mobility will continue to expand, alternatives promoting green transition would be required. In this regard, she also mentioned electrification of heavy commercial vehicles which needs to adopt a faster pace. On the other hand, while laying emphasis on the need for inclusion of heavy commercial vehicles under FAME Scheme as well as the public investment in charging infrastructure, **Dr Anup Bandivadekar, Program Officer, Hewlett Foundation Environment Program** recommended extension of FAME scheme for at least 3-4 years after the year 2020.

Mr Clarence Woo, Executive Director, Asian Clean Fuels Association brought the topic of clean fuels such as bio-fuels (E-20 biofuels) to the session and discussed how they should be adopted based on their cost effectiveness, environmental impacts as well as sustainability. He also emphasized on the 'end of life management' of vehicles and how it plays a crucial role in decarbonizing the transport sector. While referring to the lack of co-ordination in many government ministries and parastatals, **Mr Woo** highlighted the importance of inclusion of various stakeholders (Industries, NGO's, scientific institutes & citizens) to give mutual commitments to carbon neutrality agenda. In terms of best practices, he mentioned the use case of Singapore's Electronic pricing system and how it has helped citizens to shift towards public transport. The session ended with a brief summarization of all the topics that were covered over the 1.5-hour discussion by **Mr Sudhendhu J. Sinha**. While summarizing he quoted "they say that great cities are not where poor use cars, they are the ones where rich use public transport".

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“Electrification is an important aspect not only for passenger transportation but also for freight transportation”. “One of the major challenges in decarbonization process is to provide alternative fuel for trucks for freight transportation”

Mr Shri Prakash
Distinguished Fellow, TERI

“Pandemic has played a very important role in making Indian Railways adjust according to the traffic and industry demand”. “Role played by TERI's NTDC will be very important in bringing together stakeholders from diverse sectors and provide unbiased recommendations”. “Indian Railways is targeting to achieve 100% electrification by Dec 2023”.

Ms Jaya Varma Sinha
Addl. Member, Traffic, Railway Board

“Mitigation measures, including promotion of public transportation and non-motorized transport, should remain the main focus”. “Various studies have shown that emissions will be doubled by the year 2030 and our focus has majorly been in decreasing passenger emissions even though freight emissions are greater than the passenger emissions”.

Prof Ashish Verma
Professor, Indian Institute of Science, Bengaluru

“We need to improve public transport and focus on freight transport to make our cities cleaner”. “We need to explore regulatory framework in the next 1–2-year window”.

Ms Akshima Ghate
Senior Principal, RMI India

“We should set long term zero-emission vehicle deployment targets”. “What we previously believed to be a hard-to-abate sector, battery electric technology in the heavy trucking industry is fast becoming reality.”

Dr Anup Bandivadekar
Program Officer, Hewlett Foundation Environment Program

“It is important to include industries stakeholders, NGO's, scientific institutes and citizens to give mutual commitments and support to carbon neutrality agenda.” “In order to reduce the use of crude oil and decrease the overall carbon footprint we will have to switch to alternative fuels like bio-fuels”.

Dr Clarence Woo
Executive Director, Asian Clean Fuels Association