

## Programme & Background Note

### Paving the Path:

### Decarbonising Transport in India and the Region

#### A Decarbonising Transport in Emerging Economies (DTEE) and NDC Transport Initiative for Asia (NDC-TIA) event

28 – 29 March 2024  
The Claridges, New Delhi  
Viceroy Hall



Supported by:



on the basis of a decision  
by the German Bundestag



**NITI Aayog**



## ■ ABOUT THE EVENT

The **International Transport Forum** is delighted to host **Paving the Path: Decarbonising Transport in India and the Region**. The two-day, invitation-only event brings together Indian and international stakeholders from the transport community to reinforce co-operation on decarbonising transport. It aims to facilitate the cross-border exchange of insights and experiences among regional counterparts grappling with analogous challenges in decarbonising their transportation systems. The event also facilitates networking between transport researchers, private and public sector professionals, as well as high-level figures in the transport space.

During the event, experts from the International Transport Forum and partner organisations (UC Davis India ZEV Research Centre, Wuppertal Institute) will share findings and policy outcomes of various initiatives related to decarbonising the Indian transport system. It will provide an opportunity to:

- Showcase the work completed in India under the [Decarbonising Transport in Emerging Economies \(DTEE\)](#) and [NDC Transport Initiative for Asia \(NDC-TIA\)](#) projects.
  - ITF Transport Life-cycle Assessment Tool
  - Life-cycle Assessment of Passenger Transport: An Indian Case Study
  - Transport needs assessment in Indian cities
  - Pathway to Zero Emission Trucking in India
- Exchange knowledge and experiences between countries in the region that face similar transport decarbonisation challenges;

The event is part of the projects “Decarbonising Transport in Emerging Economies” (DTEE), and “NDC Transport Initiative for Asia” (NDC-TIA) which form part of the International Transport Forum’s “Decarbonising Transport initiative” (DTi) and is funded by the German Federal Ministry for Economic Affairs and Climate Action and its International Climate Initiative (IKI). For more details on the organisations and projects mentioned, please see the background information at the end of this document.

Speakers and participants to be confirmed. Final programme will be shared prior to the event.

## ■ AGENDA

### Day 1: 28 March 10:00 – 17:00 IST

<p><b>10:00-10:30</b> 30 min</p>	<p><b>Welcome and Introductions</b></p>
<ul style="list-style-type: none"> <li>- Welcome (5 min)</li> <li>- Opening message from the ITF, <b>Vatsalya Sohu, Deputy Project Manager, ITF</b> (5 min)</li> <li>- Keynote address from NITI Aayog, <b>Sudhendu Jyoti Sinha, Advisor, NITI Aayog</b> (10 min)</li> <li>- Tour de Table, <b>All participants</b> (10 min)</li> </ul> <p>This opening session will set the scene for the two-day event.</p>	
<p><b>10:30-12:00</b> 90 min</p>	<p><b>Decarbonising Transport in India</b> Organised by: ITF</p>
<ul style="list-style-type: none"> <li>- Overview of the DTEE and NDCTIA project work and results, <b>Vatsalya Sohu, Deputy Project Manager, ITF</b> (20 min)</li> <li>- Overview of the ITF Transport Life-cycle Assessment Tool: the process, challenges and lessons learnt, <b>Subrajeet Sengupta, IIT Dhanbad</b> (20 min)</li> <li>- Impact of the Life-cycle Assessment of Passenger Transport: An Indian Case Study – building on the work and prospects for collaboration and market assessment for intercity electric buses in India, <b>Ravi Gadepalli, Independent Consultant</b> (20 min)</li> <li>- Questions and Discussion (30 min)</li> </ul> <p>This session will present the ITF’s work under the DTEE and NDCTIA projects, focusing on the ITF Transport Life-cycle Assessment Tool. Speakers will delve into the process of tool development and the lessons learnt from the process. The session will focus on the challenges faced during the process and the prospects for building upon this work. The session will also highlight the transport decarbonisation efforts undertaken by India's government. This will be followed by a short discussion with the speakers and a Q&amp;A with the audience.</p>	
<p><b>12:00-13:30</b> 90 min</p>	<p><b>Lunch Break &amp; Networking</b></p>
<p><b>13:30-15:00</b> 90 min</p>	<p><b>Transport needs assessment and city-focused work in India</b> Organised by: Wuppertal Institute</p>
<ul style="list-style-type: none"> <li>- Overview of DTEE project work at the city level, <b>Shritu Shrestha, Senior Researcher, Wuppertal Institute</b> (10 min)</li> <li>- Experience from the Transport Authorities in Indian cities             <ul style="list-style-type: none"> <li>o Decarbonising transport initiatives in Karnataka, DULT (30 mins)                 <ul style="list-style-type: none"> <li>▪ <b>Sylvia Prakash, DULT – Kalaburgi and Mysuru</b></li> <li>▪ <b>Ravindra S. Dhaded, DULT - Hubli-Dharwad</b></li> </ul> </li> <li>o Low carbon mobility actions in Kochi (15 min) (online)                 <ul style="list-style-type: none"> <li>▪ <b>Simmi Sashi, C-HED</b></li> </ul> </li> <li>o Sustainable mobility interventions required in Indian cities, IIT Delhi (15 mins)                 <ul style="list-style-type: none"> <li>▪ <b>Rahul Goel, Indian Institute of Technology Delhi</b></li> </ul> </li> </ul> </li> <li>- Questions and Discussion (20 min)</li> </ul> <p>This session will present the DTEE project activities in Indian cities - focusing on the Transport needs assessment in selected cities, co-ordinated by Wuppertal Institute under Urban Living Lab Center. Speakers from different cities will present their initiatives and challenges towards</p>	

decarbonising transport. The session will also include the discussion on the key sustainable mobility interventions required in Indian cities. This will be followed by a short discussion with the speakers and a Q&A with the audience.	
<b>30 min</b>	<b>Tea/Coffee Break</b>
<b>15:30-17:00</b> 90 min	<b>Experience on decarbonising transport in the region</b> Organised by: Wuppertal Institute
<ul style="list-style-type: none"> <li>- Sustainable urban mobility through implementation of innovative and integrated electric mobility solutions (40 mins) <ul style="list-style-type: none"> <li>o Vietnam - <b>Hien Nguyen Thi Thu, University of Transport Technology (UTT)</b></li> <li>o Nepal - <b>Hitendra Dev Shakya, Former Managing Director, Nepal Electricity Authority</b></li> <li>o Thailand - <b>Nuwong Chollacoop, National Energy Technology Center (ENTEC)</b></li> <li>o Philippines – <b>Jose Bienvenido Manuel M. Biona, De La Salle University (DLSU) / Electric Vehicle Association of the Philippines (EVAP)</b></li> </ul> </li> <li>- Questions and Discussion (20 min)</li> </ul> <p>This session will present the experiences of e-mobility living lab projects under the SOLUTIONSplus project as well as showcasing the experiences of mobility initiatives in other regions. This will also create an opportunity for peer learning between cities as well as regions. The importance of the inclusion of gender aspects in mobility planning, which will be part of the MobiliseHER gender project in India, will also be discussed in the session.</p>	

## Day 2: 29 March 10:00 – 17:00 IST

<b>10:00-11:30</b> 90 min	<b>India's Freight Transition and Lessons from the Region</b> Organised by: UC Davis India ZEV Research Centre
<ul style="list-style-type: none"> <li>- Introduction and setting of the discussion, <b>Anannya, Program Head (India), UC Davis</b> (5 mins)</li> <li>- Keynote address, <b>Jivisha Joshi DPIIT</b> (15mins)</li> <li>- Overview of potential pathways to Zero Emission Trucking in India <b>Rijhul Ladha, Researcher UC Davis</b> (15mins),</li> <li>- Lessons from greening road freight and its challenges in South Asia (30 min) <ul style="list-style-type: none"> <li>o <b>Walleastein Sigui, Transportation Development Officer, Department of Transport</b></li> <li>o <b>Jose Bienvenido Manuel M. Biona, De La Salle University (DLSU)</b></li> <li>o <b>Sharif Qamar, TERI - The Energy and Resources Institute</b></li> </ul> </li> <li>- Moderated discussion followed by Q&amp;A (30 mins)</li> </ul> <p>This session will explore potential pathways for decarbonizing India's road freight, with a special focus on the hard-to-abate medium and heavy-duty vehicle (MHDV) segment. The presentations will cover opportunities within India's current regulatory landscape and draw insights from greening the road freight sector in Indonesia/Philippines, and Cambodia. It will also attempt to explore opportunities for regional collaboration to enable faster road freight transition amongst developing economies.</p>	
<b>11:30-13:00</b> 90 min	<b>Power market Reforms to enable Renewable Energy (RE) based Electric Vehicle Charging in India</b> Organised by: GIZ India

- Introduction and scene setting **Amegh Gopinath, Coordinator, NDC-TIA India Component, GIZ India** (5 min)
- Keynote address and release of reports from the study "Power market Reforms to enable Renewable Energy (RE) based Electric Vehicle", **Sudhendu Jyoti Sinha, Advisor, NITI Aayog** (10 min)
- Presentation of key analyses and recommendations from the study
  - o Key findings on the transport transition at the National level, **Akshit Tripathi, Senior Consultant, Deloitte** (10 min)
  - o Technical feasibility of RE-based EV charging in 3 cities and bus depot analysis, **Chandra Sekhar Reddy Atla, Deputy General Manager, PRDC** (15 min)
  - o Commercial feasibility and Key recommendations for implementation of RE-based EV charging in India **Chandan Dikshit, Associate Director, Deloitte** (15 mins)
- Presentation on "Incentivizing electric vehicle uptake in India: Review of the FAME II scheme and policy opportunities for the FAME III scheme (Part 1: Demand Incentives)", **Sumati Kohli, Associate Researcher, ICCT** (15 mins)
- Q&A with the audience, moderated by **Suraj Kanojia, Junior Energy Advisor, GIZ India** (15 min)
- Summary and closing remarks, **Suraj Kanojia, Junior Energy Advisor, GIZ India**, (5 min)

This session focuses on analysing the different ways of enabling renewable energy-based EV charging in India. The applicability of the recommendations based on the current regulatory landscape in Bengaluru, Kolkata, and Panaji is highlighted along with the implementation timeframe. The panel discussion will further deliberate on the challenges and recommendations identified in this study.

**13:00-14:30**

90 min

**Lunch Break & Networking**

**14:30-16:00**

90 min

**ITF Transport Outlook: a broader look at the region**

Organised by: ITF

- Setting the scene and presentation of the ITF Transport Outlook findings with a focus on South and Southeast Asia region, **Orla McCarthy, Co-head of Research Centre, ITF** (20 min)
  - o Panellists:
    - **Ravi Gadepalli, Independent Consultant** (15 min)
    - **Bekhzod Rakhmatov, Associate Economic Affairs officer, Transport Connectivity and Logistics Section Transport Division, ESCAP** (15 min)
    - **Walleastein Sigui, Transportation Development Officer, Department of Transport, Philippines** (15 min)
  - o Moderator: **Orla McCarthy, Co-head of Research Centre, ITF**
  - o Discussion topics:
    - Financing transport decarbonisation in the region
    - Transport infrastructure burden for countries in the region
    - Data gaps for modelling and planning work in the region
- Moderated discussion and Q&A with the audience (25 min)

The session features presentations on ITF Transport Outlook findings for South and Southeast Asia, followed by presentations from speakers on ongoing work on decarbonising transport in the region. This will be followed by a panel discussion and moderated Q&A session that explores

financing of transport decarbonisation, infrastructure challenges faced by countries in the region, and addressing data gaps.	
<b>15 min</b>	<b>Tea/Coffee break</b>
<b>16:15:16:30</b>	<b>Closing</b> By ITF, Wuppertal Institute and UC Davis India

## Background Information

### ■ INTERNATIONAL TRANSPORT FORUM

The International Transport Forum (ITF) at the OECD is an intergovernmental organisation with 62 member countries. It acts as a think tank for transport policy that covers all modes of transport. The ITF's mission is to foster a deeper understanding of the role of transport in economic growth, environmental sustainability and social inclusion and to raise the public profile of transport policy. The ITF acts as a platform for discussion of transport policy issues. It analyses trends, shares knowledge and promotes exchange among transport decision-makers and civil society.

### ■ DECARBONISING TRANSPORT IN EMERGING ECONOMIES (DTEE)

As part of the Decarbonising Transport initiative, the Decarbonising Transport in Emerging Economies (DTEE) project aims to help national governments and other stakeholders to identify measures and establish pathways to reduce transport GHG emissions in transport and meet their climate goals and NDCs, while also fostering their economic and social development. The project is implemented by the ITF in collaboration with The Wuppertal Institute (WI). It focuses on four ITF member countries: Argentina, Morocco, India and Azerbaijan. It is centred on the development of modelling tools that allow the assessment of greenhouse gas emissions (GHGs) in transport and help elaborate policy strategies to mitigate them.

The activities of the DTEE project are developed in close co-ordination with each of the countries' national government agencies, also involving local policymakers and other stakeholders from industry, academia and non-governmental/civil society organisations. NITI Aayog is the nodal agency liaising with the ITF and WI in the case of India.

The DTEE India project focuses on the development of a modelling tool capable to assess GHG emissions in the transport sector, taking a life-cycle perspective. DTEE India activities will also include support for the build-up of local capacity, with the aim to improve future transport research and policy development beyond the project duration.

The DTEE project is part of the International Climate Initiative (IKI). IKI is working under the leadership of the Federal Ministry for Economic Affairs and Climate Action, in close co-operation with its founder, the Federal Ministry of Environment and the Federal Foreign Office.

### ■ NDC TRANSPORT INITIATIVE IN ASIA (NDC-TIA)

The NDC Transport Initiative for Asia (NDC-TIA) supports China, India and Vietnam in the definition of policies enabling to meet the objectives of their Nationally Determined Contributions (NDCs). The NDC-TIA is a joint project of seven organisations and is co-ordinated by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. In addition to the ITF and GIZ, NDC-TIA is implemented by International Council on Clean Transportation (ICCT), World Resources Institute (WRI), Agora Verkehrswende (AGORA), Partnership on Sustainable, Low Carbon Transport (SLoCaT) Foundation and Renewable Energy Policy Network for the 21st Century (REN21). The consortium connects with regional stakeholders and other Asian countries in order to encourage taking a comprehensive approach to decarbonise transport. NDC-TIA is under the umbrella of the International Climate Initiative (IKI). IKI is working under the leadership of the Federal Ministry for Economic Affairs and Climate Action, in close co-operation with its founder, the Federal Ministry of Environment and the Federal Foreign Office.

The ITF is primarily involved in the India component of the NDC-TIA. As in the case of DTEE, NITI Aayog is the nodal agency for the NDC-TIA project in India. The focus of the NDC-TIA activities carried out by the ITF in India is on the build-up of capacity to take action on GHG emission mitigation in the transport sector. In particular, the ITF involvement in the NDC-TIA India project leverages the life-cycle assessment tool developed in the DTEE India project to help local research and academic institutions supporting the government in the definition of GHG emission mitigation policies in transport.

## ■ THE DECARBONISING TRANSPORT INITIATIVE

The ITF Decarbonising Transport (DT) initiative promotes carbon-neutral mobility to help stop climate change. It provides decision-makers with tools to select CO<sub>2</sub> mitigation measures that deliver on their climate commitment. Specifically, it builds a catalogue of effective CO<sub>2</sub> mitigation measures, the Transport Climate Action Directory and provides targeted analytical assistance for countries and partners to identify climate actions that work. It also gathers and shares evidence for best practices that will accelerate the transition to carbon-neutral mobility. Finally, it shapes the climate change debate by building a global policy dialogue and bringing the transport perspective to the broader climate change discussions.

The Decarbonising Transport initiative is organised in five work streams:

- **Tracking progress:** The initiative evaluates how current mitigation measures contribute to reaching objectives for reducing transport CO<sub>2</sub>.
- **In-depth sectoral studies:** The initiative identifies effective policies for decarbonising urban passenger transport, road freight transport, maritime transport, aviation and inter-urban transport.
- **Focus studies:** The initiative analyses specific decarbonisation issues and feeds the results into other work streams.
- **National pathways:** The initiative assesses available policy levers for decarbonising transport from a country perspective. Projects may also examine regional or sub-national levels.
- **Policy Dialogue:** The initiative organises global dialogue on transport and climate change through high-level roundtables, policy briefings and technical workshops. It acts as a conduit for transport sector input to climate change negotiations.

## ■ WUPPERTAL INSTITUTE

The Wuppertal Institute sees itself as a think tank for sustainability research focused on impacts and practical application. The organisation's activities are centred on developing transformation processes aimed at shaping a climate-friendly and resource-efficient world. The overriding goal of the Institute's work is to help ensure that the planetary boundaries are respected. The Wuppertal Institute has put this goal into concrete terms with a guiding vision of a climate-neutral and resource-light society.

The UN-Habitat Collaborating Center, a Research Unit at the Wuppertal Institute, supports transformative living labs in Asia, Europe, Africa, and Latin America. The Urban Living Lab Center provides a space for collaboration among implementation-oriented initiatives in the field of urban climate action. Its objective is to build on a range of research, innovation, and development cooperation projects and to provide a platform for actors and projects to broaden and sustain urban transformation actions.

## ■ UC DAVIS INDIA ZEV RESEARCH CENTRE

The Institute of Transportation Studies at UC Davis (ITS-Davis) is the leading university centre in the world on sustainable transportation, hosting the National Center on Sustainable Transportation since 2013 (awarded by the U.S. Department of Transportation) and managing large research initiatives on transport, energy, environmental, and social issues. The UC Davis India ZEV Research Centre launched in 2022 works on advancing clean transportation transitions in India, both nationally and sub-nationally. Its work cuts across research and policy related to vehicle electrification, hard-to-abate segments like trucks, critical minerals and supply chains, and international cooperation. In addition, the UC Davis India Centre also aims to improve the US-India and California-India partnership on clean energy, transport, and climate action.

## ■ GIZ

GIZ, the Deutsche Gesellschaft für Internationale Zusammenarbeit, is a renowned German government-owned international development agency. GIZ has established itself as a global leader in providing sustainable development solutions and technical expertise. Operating in over 120 countries worldwide, GIZ collaborates with governments, businesses, and civil society organizations to address pressing global challenges such as poverty alleviation, climate change mitigation, and economic development. The organization's diverse range of projects encompasses areas such as education, healthcare, environmental conservation, and governance, all aimed at improving the livelihoods of people around the world and fostering sustainable development. In India, GIZ is working on the thematic areas of Energy; Environment, Climate Change, and Biodiversity; Sustainable Urban and Industrial Development; Sustainable Economic Development.

In recent years, GIZ has been actively involved in promoting the growth of Electric Vehicle (EV) infrastructure and Renewable Energy (RE) sources worldwide. Recognizing the importance of reducing greenhouse gas emissions and transitioning to cleaner transportation and energy systems, GIZ has been instrumental in developing strategies and plans for enhancing grid flexibility. This includes initiatives aimed at integrating a higher proportion of renewable energy sources into the grid, implementing advanced energy storage solutions, and fostering smart grid technologies.