



World Sustainable Development Summit 2019



Kolkata Regional Dialogue on 'Preparing for the Future of Urban Mobility'

The World Sustainable Development Summit (WSDS) is the annual flagship event of The Energy and Resources Institute (TERI). It has in its journey of seventeen years (2001- 2018) become a focal point for global leaders and practitioners to congregate at a single platform to discuss and deliberate over climatic issues of universal importance.

The Summit series have emerged as the premier international event on sustainability which focusses on the global future, but with an eye on the actions in the developing world which could bend our common future.

The Summit series have over the years brought together 47 heads of state and government, 13 Nobel laureates, ministers from 76 countries, 1600 business leaders, and 1800+ speakers and over 12,000 delegates from across the world.

Possibly the sole Summit on global issues taking place in the developing world, WSDS now strives to provide long-term solutions for the benefit of the global community by assembling the world's most enlightened leaders and thinkers on a single platform.

With the aim of widening the scope and outreach of the WSDS, a series of pre-events in the form of International and Regional Dialogues are held prior to the Summit. The discussions and deliberations held at these Dialogues are brought forward to the main Summit stage where they are further matured and discussed in-depth by experts and practitioners from relevant fields.

The Regional Dialogue for WSDS 2019 is being held in Kolkata on the theme of 'Preparing for the Future of Urban Mobility' on October 4, 2018. The Dialogue being held in association with the Bengal Chamber of Commerce and Industry (BCC&I) will focus on the transition that is being led by innovations in the arena of urban mobility which are bound to play a crucial role in paving its future.

Kolkata as compared to other metro cities in India is a relatively new and planned city. The evolution of Kolkata shows that transportation was the corner stone in shaping the city pertaining to which, it makes the city most suited to lead the discussions on the future of urban mobility. A major focus at the event will be on the challenges that hinder the future transition and the recommended way forward for urban mobility in the current Indian landscape.

Two sessions on, 'Pathways for Decarbonizing Urban Mobility' and, 'Future of Urban Mobility: Enabling Shared, Connected, Integrated and ZEV's', will be held as part the event which will aim to initiate dialogue between various urban mobility stakeholders. These discussions will help provide regional in-sights to the deliberations that will subsequently take place in New Delhi as part of the WSDS.

'Preparing for the Future of Urban Mobility'

An efficient transport system is crucial for India as it witnesses rising demand for transport services and related infrastructure. As mobility needs of the country are increasing, the subsequent impacts are also intensifying. In India, the transport sector is the key consumer of fossil fuels, as it is primarily dependent on petroleum products for meeting its energy requirements. About 98% of the energy needs of the sector are met by petroleum products. The country is heavily dependent on imports for purchase of oil which has been following an upward trend, since a long time. The high dependence on liquid fossils has serious implications for country's economic and environment health. On one hand this is leading to losses to the government exchequer and rising concerns of energy security, on the other hand, greenhouse gas (GHG) emissions produced from consumption of fossil fuels are leading to growing concerns related to climate change. The demand for oil from the road transport sector, in particular, is escalating at a rapid rate, and is highest among all key energy consuming sectors (except for agriculture). The growth in energy consumption in road transport has tripled since 1981 and accounts for about 90 per cent of energy consumption for all transport modes. The heavy dependence of transport sector on liquid fossil fuels calls for an urgent diversification of the fuel basket from both an energy security and a low-carbon perspective.

Against this background, it is imperative to plan for policies that can manage fuel and energy demand from the sector in the coming decades and can influence the future carbon emissions. There is a need to look into the potential role of available alternative cleaner fuels in powering the transport sector. Alternate fuels such as electricity, biofuels, hydrogen, etc. offer a potential solution that needs to be explored. In particular, the impact of these alternate fuels in terms of reducing oil dependence, carbon emissions and local air pollution needs to be analysed/ compared. To identify the appropriate fuels to achieve a low oil-dependent and low-carbon transport sector their potential costs, risks and challenges also need to be assessed. In this regard, it also becomes critical to identify transport modes that could be targeted to realize substantial results in a shorter time span. For e.g. targeting public transport vehicles to begin with, shifting to alternate/low-carbon fuel technology in public transport fleets could yield desired results, given the high share of these vehicles in total energy consumption and carbon emissions. Decarbonizing strategies in the transport sector can also contribute significantly to India achieving its Nationally Determined Contributions (NDCs) targets. To this end, India is focusing on several mitigation initiatives to develop energy efficient and low carbon transport systems which include improved fuel technology standards, electric mobility initiatives, introduction of a biofuel policy etc.

Apart from this, urban mobility is also undergoing a transition with the changing travel patterns and consumer preferences, demand for clean, efficient, convenient and speedy

services and mobility needs. Innovations surrounding, vehicular technology, data analytics for improved decision making, and maximizing asset utilization are fast emerging. As a result, the emergence of shared and connected mobility with the presence of Zero Emission Vehicles (ZEVs) is defining the future of urban mobility. In this regard, the recently concluded MOVE Global Mobility Summit brought together key stakeholders in the global mobility space to evolve a public interest framework for a shared, connected, zero emission and inclusive mobility agenda for the future.

With transport sector becoming one of the major contributors towards air pollution, congestion and several other negative externalities, various measures are in place to make the sector more efficient. However, only effective coordination and collaboration between government policies and actions of non-state actors can play a crucial role in paving low carbon mobility pathways. Against this background, two panel discussions have been designed, to deliberate on the challenges and opportunities for de-carbonizing urban mobility and the strategies for preparing it towards a low carbon future.

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Panel Discussion 1: Pathways for Decarbonizing Urban Mobility

The rapid urbanization in India has brought up enormous mobility challenges in the form of traffic congestion, air pollution, road accidents and the inadequacy of public transport has led to burgeoning growth of private vehicles. Privately owned two-wheelers and cars accounted for 86% of the total registered vehicles in India in 2016. Over a period of 10 years (2006-16) the total registered vehicles grew at a CAGR of 9.9%, while cars and two-wheelers grew at a CAGR of 10.1% in the same period (MoRTH, 2016), indicating increasing ownership of personalized motor vehicles. The increase in transport demand has also led to extensive energy consumption. Presently, the transport sector accounts for 24% of the total energy consumption in the country (TERI, 2018) and 98.5% of which is met by petroleum products (TERI, 2016). Within the transport sector, road transport with a share of 87% accounted for the highest share of the CO₂ emissions.

This clearly indicates the need to decarbonize the transport sector in urban India and adopt low carbon pathways as the way forward. In this context, mitigation and adaptation strategies in the transport sector will play a significant role in achieving the Nationally Determined Contributions (NDCs) targets, which represent a unique opportunity for India to scale down its emissions and energy consumption. Under the NDCs a set of strategies to reduce the emissions intensity of its GDP by 33%–35% below 2005 levels by 2030 has been developed. In this context, India is focusing on several mitigation initiatives to develop energy efficient and low carbon transport systems to reduce emissions from the transport sector. To this end, this panel will address mitigation and adaptation strategies for decarbonizing transport sector. The panel will focus on understanding the existing policies and strategies in places for reduction of carbon emissions from the transport sector and the role they will play in achieving the NDC targets. Focusing on the urban mobility landscape and the challenges towards achieving low-carbon development, the discussion will be centered on the following questions:

1. What are the measures adopted by the state/city level government to reduce emissions from the transport sector in line with the INDC goals?
2. What measures are in place in the metropolitan cities of India to meet the rising mobility demand?
3. What are the potential alternative fuel technologies for mobility in the Indian context?

Panel Discussion 2: Future of Urban Mobility: Enabling Shared, Connected, Integrated and ZEVs

The mobility scenario in urban India is undergoing a transition. With the advent of transformative mobility solutions in vehicle technology, travel patterns, fuel typologies the urban transport sector is undergoing a paradigm shift. The emergence of shared, connected and integrated mobility with electric vehicles promises to significantly shape the future of urban mobility.

Shared mobility promises to be an effective solution for reducing per passenger emissions, connected vehicles offers potential benefits on road safety, traffic management and sustainability, integrated transport systems enable for seamless mobility and the adoption of electric vehicles provides benefits with respect to reduction in emissions, air pollution and enhancing energy security, and if widely adopted, it will truly revolutionize mobility. In this context, the panel will discuss the future of urban mobility focusing on the aforementioned themes of transition-shared, connected, integrated and electric mobility and explore the key enablers for the future transition. The panel will discuss the emerging policies and technologies in place for, promoting shared, connected and integrated mobility with electric vehicles. The panelists will discuss the current Indian landscape defining the future of urban mobility, the challenges impeding the future transition and the recommended way forward through the following indicative questions:

1. What are the enablers to promote shared mobility in public/intermediate public transport to effectively reduce per passenger km?
2. What developments in information and technology services are required to equip for connected vehicles?
3. What are the challenges impeding the adoption of EVs and what actions need to be adopted for enabling an EV ecosystem?
4. How can integration of transport system be ascertained to ensure seamless mobility