

## **Sustainable Urban Transportation for Smart Cities in the Developing Countries**

Transportation is a lifeline for cities and is instrumental in determining the socioeconomic development and well-being of the dwellers. Historically, city expansion has been attributed to variation in modes of transportation. Cities have evolved from being walled to almost becoming borderless as a result of ease of mobility and establishment of related infrastructure. Over years, fossil fuel-based transportation has had a negative impact on the environment of urban areas. According to Climate Watch and World Resource Centre, out of the 50 billion tonnes of emissions, in 2016 three quarters (73.2%) of the global GHG emissions, were attributed to the energy sector, i.e., energy utilised by industries (24.2%), buildings (17.5%), and transport (16.2%). Global use of land by road transportation infrastructure, including parking spaces, is estimated to be 1.5 to 2.0% (Rodrigue 2020), which also means that 30 to 60% of urban areas are occupied by the same set-up. This results in poor air quality, land degradation, green cover loss, and depletion of water quality resulting into poor health of citizens (Ritchie, Roser and Rosado 2020).

It is important to de-link carbon emissions from the transportation sector for a better environment, climate mitigation, and social inclusion and well-being. Globally, several multimodal options, social and technological innovations are being adopted and facilitated to offset the GHG emissions from the transport sector. These include mass transit systems, cycling, e-vehicles, curtailing unnecessary movement by options such as work from home and smart urban designs. This, however, is not a reality for developing countries due to their lack of technological advancement, soaring temperatures, poor infrastructure, large population, car-centric mindset among policymakers and scant resources to support innovations in the sector, among others.

This panel will address the following questions, especially in the context of developing countries:

- How can developing countries move towards innovative and sustainable transportation systems given their limited capacities and resources?
- Apart from financial resources, what are some of the impediments in the transition towards sustainable transportation in developing countries?
- What are some of the implications of new technologies in curtailing carbon emissions? How can actors, especially youth and the private sector, help in this regard?

### **References**

Ritchie, H., Roser, M. and Rosado, P. 2020, 'CO<sub>2</sub> and Greenhouse Gas Emissions', [Online], OurWorldInData.org, <<https://ourworldindata.org/emissions-by-sector>>.

Rodrigue, J.-P. 2020, *The Geography of Transport Systems*, Fifth Edition, New York: Routledge.

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