



Decarbonising E-Commerce: Paving the way to a low carbon economy

Date: 23 February 2023 (Thursday) | **Time:** 2:00 PM – 6:00 PM (IST)

Venue: Marigold Hall, India Habitat Centre (Hybrid)

Over the last decade, the significance of digital economy has grown substantially, both domestic and globally. It is reported that by 2030, the size of digital economy in India will be approximately, 50 percent of the entire economy. This will be a historic transition in India's digital economy, with e-commerce playing a key role in contributing to country's tech ambitions. The COVID-19 has further accelerated the use of e-commerce services, with online retail and grocery delivery emerging as critical services for Indians facing pandemic lockdowns. With the increase in growth of e-commerce, so will the need to address the environmental impacts both locally and globally.

In 2021, e-commerce accounted for nearly 20% of retail sales worldwide. It is indicated that by 2025, online sales will make up close to a quarter of total global retail sales. The surge in online sales has led to increase in the amount of packages, delivery vehicles and drivers. This will escalate environmental pollution, traffic congestion, carbon emissions and unsustainable fossil fuel-powered fleets and further contribute significantly to greenhouse gas (GHG) emissions. The need of the hour is to decarbonize the Ecommerce sector in India, with a focus on reducing emissions by implementing green energies in operations, green transportation mode and sustainable packaging. These three main areas address the major CO2 sources. Much efforts and investment are taken by e-commerce companies on green initiatives however not much has been considered in, transportation, and packaging. In this event we are discussing the possible impact of sustainability angle in these sectors.

TOWARDS SUSTAINABLE TRANSFORMATION OF FREIGHT TRANSPORTATION

India is the world's sixth-largest economy, with a GDP close to US\$3 trillion and growing. Currently, India transports approx., 4.6 billion tonnes of freight annually, generating transport demand of 2.2 trillion tonne-km. As this demand continues to grow, associated road freight movement is expected to increase to 9.6 trillion tonne-km by 2050. Trucking is and last - mile (or hyperlocal) deliveries are accounted to be the main sources of GHG emissions in the Ecommerce transports sector. It will be critical to ensure that in future these delivery vehicles contribute to a cleaner and more sustainable transport modes. In light of these market trends, electric vehicles offer a compelling alternative to the conventional vehicles that dominate India's road freight today.

In India, FAME scheme (Faster Adoption and Manufacturing of Electric Vehicles in India) has been instrumental in promoting the adoption of EVs in the country. At present, FAME II is in progress and aims to encourage faster adoption of electric and hybrid vehicles by establishing the necessary charging infrastructure for EVs. However, there is a need for more encouragement in the adoption of EVs in the



Ecommerce sector. This comes along with developing a comprehensive plan for charging infrastructure which will involve the development of a network of charging stations across the country.

The FAME scheme will continue 30th March 2024, this becomes a critical moment for the government to support the adoption of EVs in order to sustain the momentum in the market. In our panel discussions we will discuss the continuation of the scheme and this scheme will can help the decarbonization of transportation in the E Commerce market. The question of whether the momentum of adoption of electric vehicles will continue without subsidy and incentives will be imperative at this juncture and how the future low carbon pathways can be achieved.

Guiding questions

1. What are the current challenges faced in last-mile and middle-mile transportation, and how can these be overcome to achieve decarbonization?
2. How can the private sector collaborate to accelerate the EV rollout from manufacturing to deployment and enable large scale rollout of appropriate middle and heavy-duty vehicles?
3. What actions / support can the Government provide in enabling private sector investment in the manufacturing of EVs and development of the EV ecosystem? What role can the Government play in optimal deployment of charging Infrastructure? If charging infrastructure and EV-production remain constrained we may only achieve a 20% penetration in EVs before 2030?
4. How can the private sector collaborate with governments and financial institutions to de-risk investments in Zero Emission Vehicles, especially for the medium and heavy duty vehicle categories? What kind of policies or financial mechanisms would be required to develop MHDV zero emission vehicles in the Indian market?
5. How Fame scheme continuation is important for the penetration of the EVs and what would be the impact of discontinuation?

CREATING A SUSTAINABLE PACKAGING ECOSYSTEM

Packaging solutions are responsible for a significant chunk of emissions in the Ecommerce sector. Further it is the main consumer of natural materials including water, gas, due to the quality of the material required to produce a single package product a single package product. In the case of e-commerce industry, the main functionality of the packaging is to guarantee the protection of the product, that the goods reach the consumer intact. Sustainability is currently one of the biggest topics discussed when it comes to packaging in general. Within this theme, developments are mainly focused on sustainable packaging and the shift to packaging made from paper and corrugated cardboard.

One approach to reducing emissions from packaging is to encourage the use of sustainable materials. Ecommerce companies should be encouraged to use recycled and biodegradable materials in their packaging. This comes with need of material innovation and more investment towards R&D to focus more on sustainable packaging. More focus should be towards intended use rather than creating a blanket solution for creating sustainability. Creating and exploring the local manufacturing communities towards producing sustainable packing solutions can further create more employment and investment opportunities as well.

Guiding questions

1. What are the current challenges faced in creating sustainable packaging alternatives and promoting local packaging manufacturing, and how can these be overcome?



2. In the E-commerce sector, companies have taken steps to replace plastic in their packaging. What is the driver, and how does it tie into your decarbonization ambitions?
3. What are the challenges in terms of availability of alternate packaging, and where do you see the need for more investments / innovation? What stops these from occurring now? What role do E-commerce companies play in developing this ecosystem?
4. What are the best practices for developing sustainable packaging alternatives and promoting local manufacturing, and how can businesses and governments work together to achieve these goals?
5. We have several leading research organizations working in alternate packaging materials to reduce the use of plastics. What actions by the Government as well as the private sector will help nudge further innovation and investments in these solutions? How can India become a leader in the manufacture and use of alternate packaging materials? Do we even have the solutions for all types of packaging uses?
6. What enablers are required for large scale investments by private sector and local manufacturing companies such as in developing solutions and locally manufacturing the required packaging solutions? Do you see the right policy environment / demand signals to derisk these investments? What support from Government and the private sector will help develop this ecosystem?

DECARBONISATION PATHWAYS FOR E-COMMERCE SECTOR

With this view, E-Commerce sector can contribute towards decarbonisation through various techniques and operations such as

- Improving logistics efficiency - optimizing routes, reducing distance; Investing in low-carbon transportation options, such as electric vehicles or cargo bikes, to reduce emissions from the transportation of packages
- Implementing sustainable packaging initiatives, such as using recycled materials for packaging and reducing the amount of packaging used for each order
- Encouraging customers to choose eco-friendly options when shopping online, such as choosing digital downloads instead of physical products, or opting for low-carbon delivery options