



## Climate Goals and Vehicular Emissions

This article is based on "[The Fatigue of Hearing About Climate Goals Minus Roadmaps](#)" which was published in Livemint on 10/11/2021. It talks about the major role of vehicular emissions in global GHG emissions and how the negligence of these emissions at national and international levels is worsening the climate change scenario.

As the [summit in Glasgow](#) continues, the **inability of the most important players** to look beyond their individual goals shows why the world has made so little progress on one of the **biggest crises of the time, climate change**.

Melting ice caps, floods and loss of lives have become a norm and despite billions of dollars of commitments and technological innovations, **no significant progress has been made**.

With reference to the transport sector, one of the major sector-wise global carbon emitters, **little has been pledged to muzzle the exhaust of large car markets**.

Decarbonisation of the transport sector by mid-century will require **a holistic and integrated approach**. Leveraging technology to create a cleaner road sector is essential, but it needs to be combined with other interventions too.

### Global Emissions and Transport Sector

- **The Plight of Increasing Temperatures:** Even the **most basic objectives are out of reach right now** including the [Paris Agreement's](#) goal of limiting global temperature rise to below 1.5°C and hitting carbon neutrality by 2050.
  - The UN Secretary-General warned that the planet was on a "catastrophic pathway" to 2.7°C of heating, breaking the promise made six years ago.
- **Global Emissions From Transport Sector:** The transport sector **accounts for a quarter of total emissions**, out of which **road transport accounts for three-quarters of transport emissions** (and 15% of total global CO<sub>2</sub> emissions).
  - Passenger vehicles are the largest chunk of this, releasing about 45% of CO<sub>2</sub>.
  - If the conditions prevail, **annual GHG emissions in 2050 will be 90% higher** than those of 2020.
- **India-Specific Emissions:** India's **transport sector contributes to 12% of the country's GHG emissions** with the railways accounting for about 4% of these emissions. These emissions have more than tripled since 1990.
  - According to the latest estimates, transport is also among the **fastest-growing emitters**.
  - The Global Carbon Project (a private organisation) reports that India's carbon emissions are rising more than two times as fast as the global rise in 2018.
- **India's Recent Initiatives In-Line:**
  - In August, 2021 the [Forum for Decarbonizing Transport](#) was launched as a part of the [NDC-TIA Project](#) for developing a coherent strategy for decarbonising transport in the region.
  - The [Indian Railways](#) also announced that it is **likely to become world's first 'net-**

- [zero' carbon emitter](#) by 2030.
- The [FAME Scheme](#) was launched as a part of the [National Electric Mobility Mission Plan](#) whose main thrust is to encourage electric vehicles by providing subsidies.
- Under the [PLI Scheme](#), around Rs.18,000 crore was approved for **development of advanced cell chemistry** battery storage manufacturing.
  - These incentives aim to encourage indigenous development of [Electric Vehicles \(EVs\)](#) so as to bring down their upfront cost.

## Challenges Associated

- **No Commitments From Largest Emitters in Automobile Industry: The world's biggest car markets and automakers; Volkswagen, BMW and Toyota Motor are unlikely to get on board with an emissions pledge of COP26** climate summit because their respective governments are reluctant.
  - Seven out of ten of the biggest automobile groups don't even have plans to do this before 2035.
  - As per [Greenpeace](#) (an NGO), a detailed evaluation of the commitments and actions showed that the automakers (representing 80% of the market) weren't doing nearly enough.
- **Lack of Accountability by Governments:** Governments of three of the world's biggest automobile markets, the **US, China, and Japan, abstained from taking the pledge.**
  - However, India (4th largest auto market in the world) joined the coalition along with the UK, Canada, the Netherlands, Norway, Poland, and Sweden.
  - The three countries avoiding these commitments **account for around 50% of the world's CO<sub>2</sub>** from burning fossil fuels.
- **Under-Reporting of Emissions:** Several countries under-report their greenhouse gas emissions to the UN.
  - The **gap ranges from at least 8.5 billion to as high as 13.3 billion tonnes** a year; enough to have a meaningful impact on the planet's temperature.
  - It implies that the problem is not even being measured correctly, and the world is in **constant danger of chasing a moving (or even misguided) goal that may do little to mitigate the damage** already done.

## Way Forward

- **Decarbonising Road Transportation:** According to Greenpeace, to reach targets, road transportation needs to be entirely decarbonized by 2050.
  - Companies need to **phase out internal combustion engine vehicles** over the next decade to get there.
- **Financial Assistance to Policymakers:** A Smaller number of policymakers are looking for focused solutions to immediate problems. Those in progress are not getting enough attention or money.
  - The days of overarching goals are over and there is a **need for clearer outcomes and targets that address specific problems**, with a defined way to finance them.
  - **Public capital must guide private money to priority areas.**
- **EVs as Alternatives:** It is equally important to take into account the issues faced in the manufacturing and adoption of Electric Vehicles (EVs).
  - Getting a better handle on what automakers' issues are whether it's **cost, technology, manufacturing at scale or margins** would be a good starting point.
  - India has a great opportunity to decarbonize its urban transport sector. **Promotion of walking, cycling and public transport coupled with electrification of motor vehicles** should be the right strategy for the country.
    - To leverage and streamline EVs across India, there is a need to create a **favourable ecosystem for different stakeholders.**
- **Changing Approach Towards Transport Policies:** A scenario-based modelling approach for formulating transport policies would be ideal. Through such modelling, the government can **assess how GHG emissions reductions could be achieved** through a feasible set of scenarios rather than by applying a one-size-fits-all policy decision.
  - Using such tools and scenario building exercises, such a framework can be developed

which not only **gives policymakers a wealth of data**, but also **allows for different policy options to be tested** and their future impact predicted and quantified, thus allowing for the optimal one to be chosen.

***Drishti Mains Question***

“In the context of the transport sector, one of the major sector-wise global carbon emitters, quite little has been pledged to muzzle the exhaust of large car markets. However, decarbonisation of the transport sector by mid-century will require a holistic and integrated approach”. Discuss.

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