

- **Lack of skilled workers:** EVs have higher servicing costs and higher levels of skills is needed for servicing. India lacks dedicated training courses for such skill development.

Way Forward

- **Increasing R&D in EVs:** The Indian market needs encouragement for indigenous technologies that are suited for India from both strategic and economic standpoint.
 - Since investment in local research and development is necessary to bring prices down, it makes sense to leverage local universities and existing industrial hubs.
 - India should work with countries like the UK and synergise EV development.
- **Sensitising Public:** Breaking away the old norms and establishing a new consumer behaviour is always a challenge. Thus, a lot of sensitisation and education is needed, in order to bust several myths and promote EVs within the Indian market.
- **Viable Electricity Pricing:** Given current electricity prices, home charging may also be an issue if the generation is from thermal power plants run on coal.
 - Thus, a shift in the electricity generation landscape as a whole is what is required to facilitate the growth of electric cars.
 - In this context, India is on track to become one of the largest solar and energy storage markets by 2025.
 - A combination of solar-powered grid solutions that are organised with a general improvement in grid resilience will ensure adequate charging infrastructure for EV's being a green option.
- **Creating the Closed-Loop Mobility Ecosystem:** Subsidizing manufacturing for an electric supplychain will certainly improve EV development in India.
 - Along with charging infrastructure, the establishment of a robust supply chain will also be needed.
 - Further, recycling stations for batteries will need to recover the metals from batteries used in electrification to create the closed-loop required for the shift to electric cars to be an environmentally-sound decision.

- The largest suppliers of lithium-based EV batteries are reported to be the Chinese and the South Korean companies. If this is so, then a new global order is emerging to replace the **Organisation of the Petroleum Exporting Countries (OPEC)**.
 - India must plan for its place in this order — with better-charging infrastructure, battery-making factories and smart incentives for car companies and consumers to go electric.

The Need for a New National Security Policy

Cyber is often touted as the fifth dimension of warfare — in addition to land, sea, air and space. It increasingly appears that the cyber warfare is going to become a regular part of the arsenal of nations

As far as India is concerned, it ranks 3rd in terms of the highest number of internet users in the world after the USA and China, but still, its **cybersecurity architecture** is in a nascent approach.

The changing military doctrines, all across the world, favour the need to raise cyber commands reflecting a shift in strategies along with building deterrence in cyberspace.

Cyber Warfares and India

- **About:** It is the use of computer technology to disrupt the activities of a state or organization; deliberately attacking information systems for strategic or military purposes.
 - Cyber warfare typically involves the use of **illegal exploitation methods on the internet**, corruption or **disruption of computer networks** and software, hacking, computer forensics and **espionage**.
- **Arguments in Favour of Cyber Warfares:** Tempered by responsible use and appropriate controls, cyberwarfare is a **safer and more flexible strategic alternative**, one critical step between sanctions and bombs.
 - **Minimises Human-life Loss:** Reducing loss of human lives **forms one of the core principles of ethics of war**.
 - Cyberwars can be seen as an opportunity to decrease global violence and can **shift wars' focus away from human casualties**.

Note: