

1. It is argued that more than a manufacturing-centric EV policy, India needs a set of ecosystem-level EV policies. What do you understand by this? In the light of present EV policy that's being mooted by the government, discuss the statement. (250 Words)

Answer:

Background:-

- Electric vehicles (EVs) are growing in popularity and certainly in mind space. They are cleaner and more efficient, easy to maintain and there is an advantage of regenerative braking. On the whole it is a package to fight against climate change and global warming as green house gas emissions are reduced.

Problems with current model/why India needs to focus on ecosystem EV :-

- Most worries hinge on battery costs and manufacturer readiness. Also at current the electric vehicles take longer time to charge than conventional vehicles.
- A more India-specific concern will be that of the electricity grid as there are doubts when it can successfully handle the demand.
- India needs to focus on ecosystem EV because the present system does not help environment as most power comes from coal-fired power
- Will use solar photovoltaics (PV) to charge EVs. This means that Renewable energy may at best contribute some fraction of energy at different times but with personal vehicles and public transport mostly charged at night solar energy advantage as an alternative is constrained.

What more needs to be done ?

- EVs and the grid can have enormous synergy.
 - Not only can EVs charge whenever there is "surplus" power, they have a battery useful for absorbing variable renewable energy. They can even offer backup power for the grid.
- Time-of-day pricing (cheap charging when power is surplus) is missing today. Without this, India cannot have signalling to purposely make demand vary to match supply conditions. Such responsiveness is a hallmark of the "future grid"
- EVs can and should use Renewable energy as much as possible as it helps in cleaning the environment.
- India could compensate cleaner vehicles through reduced registration charges, or even aim for mandating EVs for taxis and selected (urban) public transport vehicles.
- There are other ways to spur EVs, including dedicated charging spots, and discounted or free parking.
- The long-run goal isn't just to make vehicles electric but to reduce personal driving. This means urban redesign for walking/biking, more shared services, and more and better public transport
- The government mainly needs to create the right frameworks and help overcome "network effect" problems, covering both the grid and charging infrastructure.
- To meet India's demands for batteries amid a global surge in electric vehicle demand, the entire mineral supply chain needs to be overhauled and expanded
 - In order to avoid a scenario like the one that played during the oil crises of the 1970s it is imperative that India secure mineral supplies for its domestic industry by acquisition of overseas assets such as mineral reserves and the associated production.

- India has long-term trade relations with lithium-producing countries in Latin America through preferential trade agreements (PTAs).
- India needs to formulate policies incentivising domestic public and private mining companies to invest in overseas lithium mining assets.
- Reducing the battery size and adopting “swappable” battery technology are other alternatives
- India does need to have a low-emission vehicle policy, one that surrounds alternative energy sources such as bio-gas and bio-diesel.
- Because hybrids are a mesh of existing and future technologies and do not require the establishment of charging infrastructure, although popularising plug-in hybrids that can be charged both from their own engines and the grid, will actually help in the gradual seeding of such infrastructure before a shift to electric vehicles.
- Focus on wireless ranging as it allows for significantly smaller batteries or the ability to travel longer distances with a larger battery.

Conclusion:-

When India is focusing on reaching the targets on the Paris agreement and striving for cleaner environment the focus on electrical vehicles is the right direction.

PRACTICE QUESTIONS**Answer the following Questions**

1. Discuss the merits, challenges and future prospects of direct benefit transfer (DBT) in fertilizers. Should fertilisers subsidy be directly transferred to the farmer’s bank account? Examine why. (250 Words)
2. Through its oversight function, Parliament holds the government accountable and ensures that policies are efficient and in keeping with the needs of citizens. What mechanisms are available to the Parliament to conduct oversight of the executive? Also in the light of criticisms made against parliament’s this role, discuss major recommendations to strengthen this function of Parliament. (250 Words)