Electric Mobility

Why in news?

A shift to electric vehicles will help in the growth of lithium and cobalt industry.

Why there is a need to shift to electric vehicles?

- India is the 3rd largest oil importer in the world in terms of value importing 228.6 MT of crude oil worth $120 billion in 2018–19.
- Shifting to electric vehicles will reduce our dependence on crude oil, reduce carbon emissions, save forex resources & build domestic energy independence.
- In long term this shift is important because these vehicles are sustainable & profitable.
- Also this transition will fine-tune our infrastructure since they are economically and environmentally viable option.

What are the steps taken to introduce electric mobility?

- Government has drafted policies that act as catalysts in propelling the acceptance of electric vehicles.
- Under the Faster Adoption and Manufacturing of Hybrid and Electric Vehicles (FAME), government has allocated $1.3 billion as incentives for buying electric buses, 3-wheelers and 4-wheelers.
- They will be used for commercial purposes till 2022 & another $135 million is earmarked for charging stations.
- NITI Aayog has given a proposal that a $4.6 billion subsidy will be given for battery makers.
- In September 2019, a consortium was formed by Japanese automobile Suzuki Motor to set a manufacturing unit in Gujarat for producing lithium-ion batteries & electrodes.
- These policies are embedded with the vision to have 30% electric vehicles plying the roads by 2030.

Where are Lithium reserves available?

- Latin America has the famous lithium triangle region.
- These regions comprise of lithium deposits under the salt flats of northwest

Argentina, northern Chile, and southwest Bolivia.
- They hold about 80% of the explored lithium of the world & most of the production comes from these countries.

How does India meets its Lithium demands?

- At present, India's lithium-ion battery demand is fulfilled by imports from China, Vietnam, and Hong Kong.
- But India has a growing thirst for lithium-ion batteries in the last 2 years & its lithium imports have tripled from $384 mn to $1.2 bn.
- In 2019, India's National Aluminium Company (NALCO), Hindustan Copper Limited (HCL) and Mineral Exploration Corporation Ltd (MECL) signed a joint venture agreement.
- They formed Khanij Bidesh India Limited (KABIL) to search strategic mineral -lithium and cobalt- abroad for commercial use & to meet domestic requirement.
- India plans to buy lithium from the resource-rich Latin American countries.

How will lithium imports change India's trading relations with Latin America?

- Today Lithium is used as a drug to treat bipolar disorder & soon it will become the metal to treat a world polluted by excessive carbon emissions.
- India's biggest trading partners in Latin America are Brazil, Mexico, and Venezuela & we import 14%-20% of total crude oil from these countries.
- With the progression to electric vehicles, India will start importing lithium and cobalt rather than crude oil.
- This will support battery manufacturers & India's goal in switching to electric mobility.
- This will also influence India's foreign policy as our energy security dependence will shift from West Asia to Latin America.
- India also sent a high-level delegation to have a clear understanding about the availability of lithium and the possibilities of joint ventures.
- This will supply lithium to domestic markets and drive international markets.
- Moreover it provides long-term solution to clean our cities, build new markets, and skill people for new jobs towards an 'Atmanirbhar Bharat'.

Source: The Hindu

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