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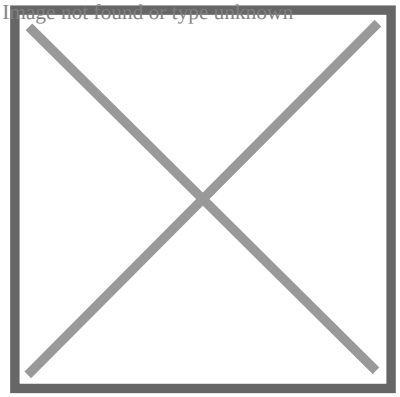

Is India ready for Electric cars?

Description

Background :-

- Electric cars are the new-generation cars which are a replacement of the old petrol/diesel cars and automobiles. These types of automobiles are propelled by one or more electric motors, using electrical energy stored in rechargeable batteries.
- The reasons for adopting these cars are the increased oil prices, to cut down exploitation of resources like coal, petroleum etc, reduce emission of pollutants and greenhouse emissions.
- Along with countries like Germany, China, etc., India has also taken a step ahead to imply Electric Vehicles(EV) by 2030. But this decision has some pros and cons with it. Piyush Goyal, Union Minister of State with Independent Charge for Power, Coal, New & Renewable Energy and Mines, recently announced that only electric vehicles (EVs) will be sold in India from 2030.

Yes :-

- India has been importing 82% of its oil requirements and spends up to 85 billion dollars in a financial year for oil imports, according to the Indian oil ministry. The automobile industry of India occupies the maximum percentage of these imports. These figures hence, clearly shows the desperate need of a replacement for oil based vehicles and opting electric automobiles will be a boon.
- Big companies have stepped forward towards adopting EVs in big proportions. Suzuki, the parent firm of India's largest car-maker, Maruti Suzuki, announced its plan to set up a $600 million lithium-ion battery factory. Mahindra, mumbai-based JSW Energy are also planning to invest in this field.
- The first step towards the EV industry has already been taken in the city of Nagpur. 200 electric cars, buses and e-rickshaws, and four charging stations were launched for the project which involved automobile manufacturer Mahindra Electric and cab service provider Ola and the Government of India as partners.

- Brands like Tesla and Nissan are prepared to launch Tesla Model 3 and all electric Nissan Leaf, which are their respective models, in India as soon as conditions favor. Thus, it is clear that there would be no lack of electric cars as supplies.
- Cost of batteries also has been going down by many notches and will continue to do so. This will no more keep an issue of buying expensive car batteries. The $600 battery cost of 2012 has fallen to $250 in 2017 and is expected to come down to $100 by 2024.
- Lithium batteries and lead-acid batteries are the essentials for the electric vehicles. To have an efficient supply of batteries by 2030, India has joined hands with the major lithium production countries– India has long term trade relations with Latin America via Preferential Trade Agreements(PTAs), an extended PTA with Chile provides India with some tariff concessions for lithium carbonate imports. The government also plans to set up a lithium-ion battery-making facility under Bharat Heavy Electricals.
- Along with fuel security or increasing the production of lithium for batteries, the R&D is also being pushed to find alternatives for lithium to the electric automobiles.

No:

- Electric automobiles are backed up by 30 to 40% subsidy globally whereas India does not have enough money to fund a subsidy.
- The infrastructure suitable for electric automobiles is yet to be implemented in India. A proper car charging infrastructure with robust smart electricity grid is required, provided there is a supply of electricity 24/7. Only about 100 charging stations have been planted throughout the country which is not at all sufficient for vehicle owners for long journeys.
- Another backlog for the Indian customers while purchasing an electric car would be the extended time required to charge the batteries to the brim. Securing long term battery supplies and developing battery management system technology is difficult and no Indian company is doing this presently.
- With time, another factor comes to play, the speed. Electric automobiles serve a top speed of 85 km/hr approximately which is far less than that of fuel-driven cars. This can also be a major reason for choosing petrol/diesel cars over EVs.
- Lithium along with other components like cobalt, sulphurare, lead, graphite, etc constitute the elements required for rechargeable lithium-ion car batteries. It is estimated by the Council on Energy, Environment and Water (CEEW) that India would require about 40,000 tonnes of lithium to manufacture EV batteries in 2030, considerably higher than the current annual global lithium production of 32,000 tonnes. To achieve these demands, India yet needs to expand its mineral supplies. The annual EV battery market is expected to be around $30-55 billion and India cannot afford to fulfill the demand solely through imports.
- The rate of country's GDP from the current automotive sector alone is of 7%. A sudden switch from the fueled cars to the electric aided ones can affect the annual growth rate in economic terms.

Conclusion :-

Electric cars will positively be able to cut down polluted emissions to a great extent. As a signatory to the 'Paris climate agreement', India is obligated to bring down its share of global emissions by 2030. A few cities of our country are marked as the most polluted ones in the world

for which vehicular pollution is one of the major causes.

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Afterwords :- Feel free to comment your opinions in the comments section below.