

While China has an advantage in lithium battery production, India could become competitive by having better strategy in its production regime. Elaborate.

Indian import \$ 1.23 billion worth of Lithium-ion battery from China, Taiwan & South Korea. GoI concern to propose on setting up the giga factory - aiming capacity of $\begin{cases} 100\text{GWh} - 2022 \\ 500\text{GWh} - 2025 \end{cases}$ compare to China - it ~~was~~ aiming to have 600GWh by 2025. To meet the Domestic need based on domestic demand. Lithium giga-factory will be setup. To reduce the dependence over China on Lithium-ion battery import & also to meet the sustainable energy goal & reducing of CO₂ emission by 2030. Electric vehicle is being encouraged by GoI.

Lithium ion battery:

Use of battery has moved from communication sector - to transport industry. Cost of Electric vehicle was $\frac{1}{2}$ few years back, but now it has reduce to $\frac{1}{3}$ of cost. Aim to Reduce the cost of Electric vehicle by 2022. Reducing of price is due to $\begin{cases} \text{supply of material} \\ \text{mining innovation} \\ \text{Management s/m} \end{cases}$ China dominates the Lithium-ion battery production by 76%. Globally - From extraction to export.

Australia & Chile $\rightarrow$ large reserve of lithium found.
3 Major component:

- Cell $\Rightarrow$ If several collection of cell into a pack controlled by Management system
- Packing - restriction to change in cell technology
- Management s/m - it is leverage to India's software

Extraction of Lithium from Waste

India is planning to get recycled lithium & other mineral from - Urban waste - Extraction of Lithium ion from Urban waste cat billion. India demand will increase to 125GWh by 2050 & Maintaining strong relation with Australia & Chile for lithium extraction