

General Studies-1; Topic- factors responsible for the location of primary, secondary, and tertiary sector industries in various parts of the world (including India)

Why India Needs a National Aluminium Policy

1) Introduction

- Aluminium is the second most used metal in the world after steel.
- It is also the fastest-growing metal, growing by nearly 20 times in the last 60 years.
- The role of Aluminum sector will be critical as India advances to meet its economic growth targets.

2) Aluminium Consumption in India

- In India, aluminium consumption is pegged at 2.5 kg per capita.
- To reach the global average of 11 kg per capita, India must up annual consumption by 16 million tonnes.
- Even at its low consumption, aluminium contributes 2% of manufacturing GDP (steel 12%, cement 9%) and provides nearly 800,000 jobs.
- This growth is critical for India's vision of achieving 25% of GDP from manufacturing by 2022.
- It will be a key contributor to 'Make in India', National Capital Goods Policy, setting up of smart cities and the goal of 100 GW solar capacity by 2022.

3) Aluminium Benefits

- Its light weight, recyclability, conductivity, non-corrosiveness and durability have helped establish it as a metal of choice for defence, infrastructure and other strategic sectors.
- Its use in critical infrastructure sectors includes power transmissions, transportation systems, manufacturing industries, construction, and others.
- The sector has strong forward and backward linkages, substantial market potential, a high degree of technological intensity and high scope of value addition.
- Aluminium has a greater role to play in promoting a sustainable future and lowering carbon footprint.
- Aluminum is also called 'the Metal of Future' due to the above properties.

4) Present Status

- The domestic aluminium industry is struggling to remain globally competitive, because of rising production costs.
- Amongst the largest producers of aluminium—Canada, Russia, the Middle East, Norway and China—India has the highest cost of production, because of high energy costs.
- The impact of coal cess, electricity duty, renewable purchase obligations, and import duty on CP coke raises aluminium's cost of production to nearly \$238/MT.
- Delays in obtaining environmental, forest and other statutory clearances for mining coal and bauxite increases production costs.
- Aluminium imports from the ASEAN region have surged from \$122 million in 2010 to \$302 million in 2016.
- Logistical and infrastructural issues in terms of rake availability and railway connectivity push costs upwards.
- Therefore, the need of the hour is to formulate a National Aluminium Policy (NAP) which focuses on holistic short-, medium- and long-term visions, with capacity addition.

- This will require a strategy for achieving the targets on raw material, infrastructure, value-addition, power, energy requirements and scrap recycling.

5) Aluminium Industry as a Strategic Sector

- A country's over-reliance on foreign imports for essential strategic metals may be detrimental towards the objective of economic and national security.
- Many industrialised nations have included non-ferrous metals/aluminium industry as a strategic sector in their industrial strategy.
- The U.S. Department of Defense considers aluminum a strategic metal for maintaining effective military capabilities.

6) Recommendations that can form the pillars of the NAP

- Classify aluminium as a core industry.
- Currently, India identifies coal, crude oil, natural gas, refinery products, fertilisers, steel, cement and electricity as its eight core industries.
- Given aluminium's growing consumption and its increasing requirement in nation building, it will be feasible to accord it core industry status.
- India's unique advantage of abundant, good quality bauxite along with coal needs to be leveraged to develop a globally competitive aluminum industry which will also help achieve our economic development goals.
- The industry should not face administrative and legal hassles during the operation of coal and bauxite mines.
- NITI is drafting a National Material Recycling Policy which aims to enable India to establish an appropriate legislative, administrative and institutional framework for the recycling of metals and materials.
- Domestic scrap generation has to be our priority and this policy will be an important step in this regard.
- A separate energy policy needs to be developed for the energy-intensive sectors.
- Renewable Purchase Obligation, coal cess and electricity duty charges must be looked at, and rationalised, to make the sector globally competitive.
- Before opening up our domestic market to FTA members, a level playing field should be ensured for domestic manufacturers to compete with foreign players.
- Downstream producers of aluminium need to be encouraged towards high-end production and value-added exports.
- As aluminium is a continuous process industry, it will require priority access to infrastructure in terms of transport wagons and rake availability.

7) Conclusion

- India's growing economic might enables it to produce enough high-quality aluminium to ensure self-reliance in defence and critical infrastructure, and avoid global volatility in supply and prices.
- An NAP will be an important step.

8) Facts for Prelims

- In nature, aluminum does not exist in a pure state.
- The production of primary aluminum metal commences with bauxite ore, which is composed of hydrated aluminum oxide (40%-60%) mixed with silica and iron oxide.

- Orissa, Gujarat, Jharkhand, Maharashtra, Chhattisgarh, Tamil Nadu and Madhya Pradesh are the main bauxite producing states in India.
- Some of its unique properties are lightweight, recyclability, conductivity, non- corrosiveness and durability.
- Its ability to conduct heat and electricity also makes aluminum a popular choice in the electrical and electronics industries.
- India is the 3rd largest Aluminum Producer and 5th largest consumer of Aluminum.

