



Surge in India's Coal Demand

For Prelims: Coal, Renewable Energy.

For Mains: Reasons for surging Coal Demand in India and related concerns.

Why in News?

The demand for coal in the country is expected to be in the **range of 1.3-1.5 billion tonnes by 2030**, according to [Economic Survey 2021-2022](#), despite the push for [renewable energy](#).

- This is **an increase of 63%** from the current (2019-2020) demand of 955.26 million tonnes.

What is the reason for increasing coal demand?

- Iron and steel production uses coal and there are not **many technologies to replace the fuel immediately**.
- **Continued expansion of India's economy is expected during 2022-2024**, with annual average GDP growth of 7.4%, fuelled at least partially by coal.
- India's push to domestic coal mining through both Coal India and auction of coal blocks to private companies, coal usage in India will increase **as it plateaus in other parts of the world, including China**.
- The central government has opened **up coal mining for the private sector, claiming it as one of its most ambitious coal sector reforms**.
 - The government anticipates that it will bring efficiency and competition in coal production, attract investments and best-in-class technology, and help create more jobs in the coal sector.

What are the Concerns?

- The freeway to coal will **raise the local pollution in the country**. The government has notified [new emission norms for coal-based thermal power plants](#). But the implementation on the ground has been inadequate.
- Coal- and lignite-based thermal power plants on an annual basis emit 1.3 billion tonnes of carbon dioxide equivalent/year, which is **a third of the total greenhouse gas emissions in the country**.
- By afforesting about one-third the area of Delhi (about 1,50,000 hectares), the government claims reduction of 0.04% CO₂ emissions per annum.
 - In a densely populated country, including **afforestation to be a route to Net Zero might not prove very promising**.
 - **Switching to renewable energy by coal companies** was another effort towards turning into a low-carbon economy. As on 31st March, 2021, the PSUs installed renewable capacity of 1,496 megawatts and during the next five years, it planned to install an additional 5,560 megawatts of renewable capacity with substantial carbon offset potential.
 - However, this is just 1% of what the Prime Minister had committed at the **recent Glasgow**

conference — 500 gigawatts of installed capacity through non-fossil fuels and 50% of its energy requirement from renewables by 2030.

Coal

- It is one of the most abundantly found fossil fuels. It is used as a domestic fuel, in industries such as iron and steel, steam engines and to generate electricity. Electricity from coal is called thermal power.
- The coal which we are using today was formed millions of years ago when giant ferns and swamps got buried under the layers of earth. Coal is therefore referred to as Buried Sunshine.
- The leading coal producers of the world include China, US, Australia, Indonesia, India.
- The coal producing areas of India include Raniganj, Jharia, Dhanbad and Bokaro in Jharkhand.
- Coal is also **classified into four ranks**: anthracite, bituminous, subbituminous, and lignite. The ranking depends on the types and amounts of carbon the coal contains and on the amount of heat energy the coal can produce.

Way Forward

- They should also be very cautious of adding new coal capacity beyond 2030 as it risks locking in resources.
- India must enhance investments in the deployment of clean coal technologies throughout the coal value chain. Government power utilities must show the way by investing in the deployment of advanced clean coal technologies.

Source: DTE

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