Inevitability of coal industry - India

What is the issue?

India's coal-dependence seems inevitable in the short to medium term and hence clean coal needs a finance and technology push.

What is the status of coal industry across the globe?

- There are growing international consensus around the withdrawal of financial capital from the coal industry.
- Large sovereign wealth funds and pension funds, as well as multinational aid agencies like the World Bank have undertaken this exercise by announcing their exit from coal financing.
- Coal-based generators in the developed countries were already on the back-foot because of rising regulatory costs.
- These countries are aiming at the decline of coal-based power generation and encouraging cleaner alternatives in its place.
- Hence, most of the coal expansion in the 2010s has come from Asia, particularly India and China.

What is the reason behind their expansion?

- Many Asian countries are continuing to expand their thermal coal-based power generation fleet, despite the falling costs of renewables.
- Some countries that have reduced coal-based generation continue to rely heavily on exports of coal (Australia) or coal-generation power equipment (China).
- This is because, coal-based power generation is not a singular industry.
- It is a network of upstream miners, machinery manufacturers, transporters, engineering consultants, plant operators, and consuming utilities.
- These industries not only collectively employ many people, but are also part of an ecosystem which has been running smoothly for decades.

What are the concerns with their operations in India?

- **Regulatory issues** - Coal plants have much higher intermittent operations

and maintenance (O&M) costs.

- As regulations, particularly around fly-ash disposal, stack emissions, and effluent waste-water treatment, have become stricter over the last few decades, O&M costs have increased.
- But India's power regulators are <u>not regularly updating prices</u> to accommodate increases in operational costs due to regulation.
- - State Pollution Control Boards (PCBs) have not been particularly effective at monitoring or enforcing compliance **Liquidity issues**to their regulations.
- This is because, Indian generators are being suffered from short-term liquidity problems and hence they have few incentives to comply with regulations.

- **Debt financing** - Above all, expansion in power generation in India has been largely on the <u>back of state financing</u>.
- Almost all coal power plants in India are constructed through massive debt financing from state-owned banks, regardless of whether the promoter is a state-owned enterprise or private company.
- This shows that international investment in coal generation assets in India has been minuscule.

What should be done?

- A large number of power generators have been classified as non-performing or gone into bankruptcy, who are in desperate need for capital.
- Thus, creative, targeted financing proposals should be brought in to India to address the power sector's burgeoning problems.
- For this, manufacturers of plant machinery should approach large power generators and show them the massive efficiency gains that can be made from applying <u>integrated control systems</u> to old plants.
- Multinational infrastructure investment banks should be involved to finance technologies like CO2 scrubbers, flue-gas desulphurisation technology systems, and other kinds of stack emissions management in power plants.
- This should be made on the condition that there would be <u>continual public reporting</u> of all stack emissions from the benefiting plants.
- Also, steps like more careful material management, managing coal dust and stack emissions, and ensuring that plant effluents do not mix with local water supplies are needed.
- Clean coal as an idea has huge potential in India because of the age and inefficiency of some of our plants.
- Given the short to medium term inevitability of coal-dependence, the potential gains to implementing clean coal are massive.