

EDITORIAL ANALYSIS → 03 JANUARY 2023 → THE INDIAN EXPRESS:

THE PATH TO DECARBONIZATION:

- **Context:**
- The energy security of those nations that rely on carbon-based energy is in peril as a result of recent global events like the CoVid-19 outbreak, which disrupted the supply chain, the conflict between Russia and Ukraine, and the increase in coal prices.
- **How will the conflict between Russia and Ukraine impact global carbon-based gasoline prices:**
- The world energy market has been impacted by the Ukrainian crisis.
- There are four things in particular that set this convulsion apart.
- One is that the policy-making process is driven by energy nationalism and the fragmented nature of the energy market.
- Two, another iron curtain has been lowered. Russia won't be able to access western markets as long as President Putin is in power, regardless of how or when the conflict in Ukraine is resolved.
- Three, the OPEC plus one group, which essentially consists of Saudi Arabia and Russia, has departed from the Western world's sphere of influence. Saudi Arabia has made it clear that it intends to establish relations with all nations, including the US, that are non-aligned and "Saudi first."
- Four, regions that are rich in the metals, minerals, and other components required for clean energy are coalescing into new energy power hubs. China now holds the top position.

- **How these events are affecting India's energy strategy:**

- In light of the global environment, India must orient its energy compass toward long-term decarbonization and near-term energy security.
- To tackle such challenges, the government should take the following actions:
- To assure such a cover, government must increase the output of our existing producing fields. Additional monies should be set aside to get access to relevant improved oil recovery technology.
- In order to develop an equity partnership and a long-term supply deal with Saudi Arabia, it should also make use of Iran's market potential.
- In order to allow their traders to work freely, the public sector petroleum organisations' strategic petroleum stocks should be boosted to at least cover 30 days' worth of consumption, and the CBI, CVC, and CAG should be relieved of their sword of Damocles-like hold over their heads.
- It is crucial to move fast with the construction of India's national gas pipeline network.
- **However, phase down coal-based energy gradually:**
- Coal will continue to be an important component of India's energy system for many years to come.
- It is unquestionably the dirtiest fuel, yet it is also one of the most affordable sources of energy. Additionally, hundreds of people rely on the coal environment for their way of life.
- Although phasing out coal is good for the environment, it is not yet a macroeconomic or social possibility. The government must develop an energy transition plan that protects jobs in the meantime while pursuing the green objective.
- An incremental but politically sound step in that direction would be to increase R&D funding on technology for coal gasification and carbon capture and sequestration.
- charging for carbon.
- the development of observational and regulatory methods to measure industrial carbon emissions and the decision to not approve any new plants while shutting down old and inefficient ones.

- It would also be advantageous if Niti Aayog put together a group of economists and energy experts to compare the cost-effectiveness of coal and solar on a full-cost basis.
- **Increasing the effectiveness of the demand side to better utilise resources (energy security):**
 - Energy security cannot be reached by focusing solely on the supply and distribution side of the equation. Demand efficiency and conservation are equally important.
 - It is the simplest, shortest, and most affordable method of reducing dependency on external sources.
 - Europe will annually save 10 billion cubic metres of gas by just lowering their thermostats by 1 degree Celsius.
 - The government has created a number of demand management techniques, however they have not all been properly implemented. The main objective for 2023 should be to close this deficit.
- **The following three steps should be incorporated into this year's decarbonization policy agenda:**
 - The transmission grid network should first receive funding for an upgrade so that it can sporadically absorb "clean" electrons.
 - Both the wind and the sun do not always blow, especially at night. In addition, it is necessary to address the structural issues that are limiting the expansion of renewable energy sources. Among its most important elements are the repair of the balance sheets of state distribution enterprises (discoms), the simplification of the land purchase procedure, and the elimination of contractual and regulatory uncertainties. People will lose faith in the reliability of the Power Purchasing Agreements (PAAs) the discoms have with renewable energy sources if their financial affairs are not in order.
 - The development and promotion of third-generation clean energy is the second issue.
 - The arrows of mineral and chip diplomacy are also in the quiver of the Indian ambassadors. It will take decades to develop a local chip industry and use our natural resources for the metals and minerals

required for renewable energy. Diplomats should set up various sources of supply to decrease the country's vulnerability in the interim.

- diversifying the sources of renewable energy the creation of an environment that makes it easier for third-generation clean energy technologies, such as modular nuclear reactors, hydrogen, and biofuels, to be developed and commercialised. Promote nuclear energy in particular.
- **Conclusion:**
- India would suffer the most while not being a contributor to global warming.
- Millions of people live along the coastline. Their way of life will be threatened by rising sea levels. Numerous millions of people will also be affected by the melting of glaciers and temperature extremes.
- India must continue down the path of decarbonization regardless of the offender. It is unable to afford to develop first, then clean up.



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