

# 2 Min -series

(Foundational topics prerequisite for Civil Services For

# 21sf October 2021

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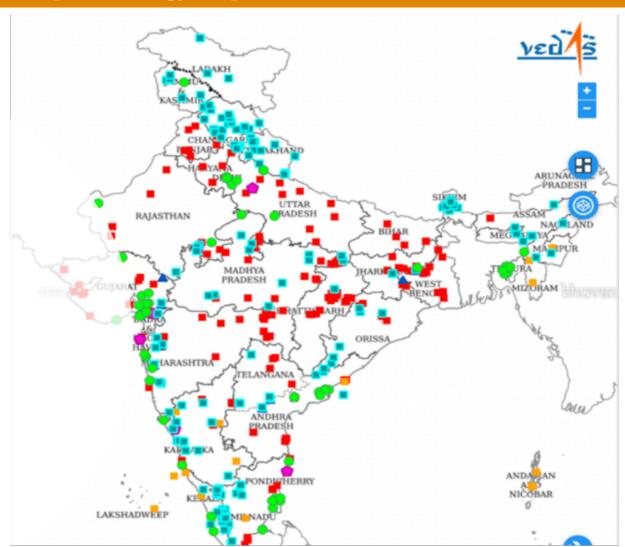
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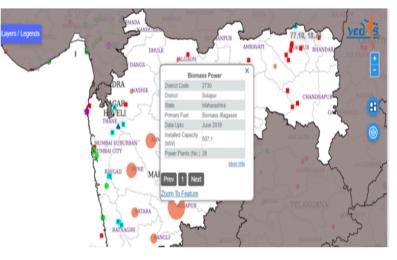
# **Economy**

# **Geospatial Energy Map of India**



### What is Geospatial Energy Map of India

• Geospatial energy map attempts to identify and locate all primary and secondary sources of energy and their transportation/transmission networks to provide a comprehensive view of energy production and distribution in India.



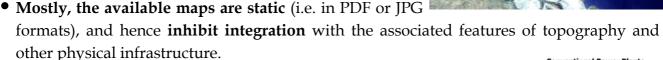
• Geographic Information System (GIS) of energy assets will be useful for ensuring integrated planning of energy sector of India, given its large geographical distribution and interdependence.



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#### Why Geospatial Energy Map of India

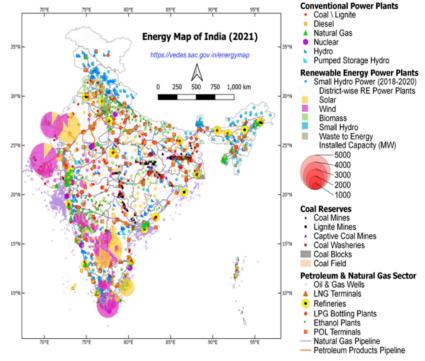
- The energy data in India is **fragmented and scattered** across multiple organisations.
- While different ministries may have detailed information and maps, about their respective domain of expertise as per mandate, there is no consolidated energy map available in India that may provide a holistic picture of the entire energy sector.





#### Information Available on

- The web-based geospatial energy map of India enables visualisation of spatial and nonspatial data on:
  - ✓ Renewable power plants
  - ✓ Non-renewable power plants
  - ✓Oil and gas downstream sector
  - ✓ Renewable energy potential
  - √ Fossil fuel resources
  - ✓ Other energy assets in India.



## **Broader Thematic Layers**

- The energy map currently provides visualisation of static data of over 25 thematic layers.
- The static data of all types of:
- Conventional power plants, including thermal (coal, diesel and natural gas)
- Hydro and nuclear power plants
- Refineries, LNG terminals, LPG bottling plants, POL terminals, oil and gas wells, coal fields, coal blocks
- District-wise data on renewable energy (including solar, wind, small hydro, biomass & waste to energy plants)







• Renewable energy resource potential (wind & solar energy) have been organized and published on the energy map.

#### It is deployed on

- The web-based geospatial energy map of India has been currently **deployed on VEDAS** Server at SAC, Ahmedabad.
- Visualisation of Earth Observation Data and Archival System (VEDAS).
- **SAC** is Space Applications Centre of ISRO.

#### **Other Possible Uses**

- The GIS-based energy map of India may be useful for **geospatial planning of resource**.
- It may be used for:
  - ✓Infrastructure planning of upcoming solar parks, coal blocks, crude oil and natural gas pipelines.
  - ✓ **Investment guidance** for financial institutions
  - **✓**Disaster management of possible energy
  - **✓**Disruption and emergency response
  - ✓Safety of energy assets due to harsh climatic conditions
  - √This may also help in resource and environmental conservation measures
  - ✓ Inter-state coordination on infrastructure planning including different corridors of energy and transport.