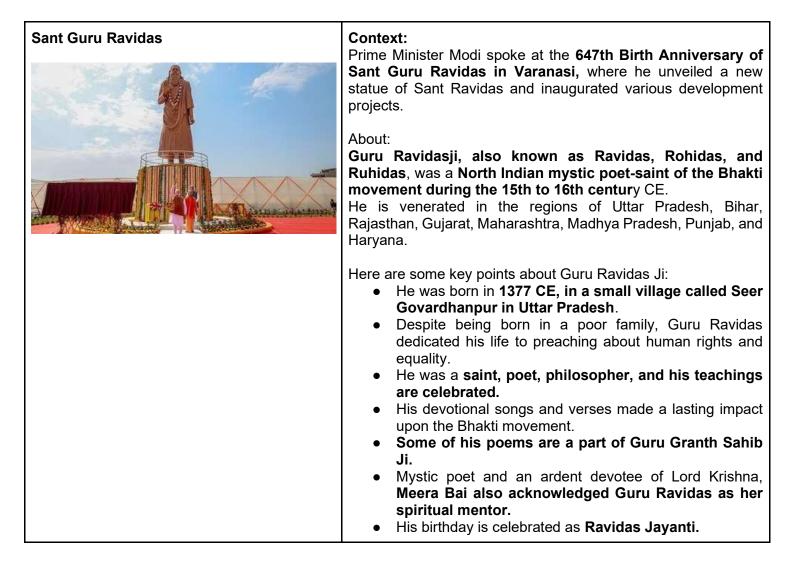




24 February 2024 National and International News







India's First Gati Shakti Research Chair	Context: • The Union Minister of Ports, Shipping & Waterways (MoPSW) and Ayush, Shri Sarbananda Sonowal, participated in the Memorandum of Understanding (MoU) signing ceremony between MoPSW and the Indian Institute of Management (IIM) Shillong to establish India's first 'Gati Shakti Research Chair' on February 23, 2024.
	 Key points: The Chair will lead high-quality academic research on multimodal logistics with a focus on the North-East. Aim: to strengthen links between multimodal logistics research and capacity-building activities with key stakeholders such as the logistics industry, government bodies, and local authorities, supporting the PM Gati Shakti Masterplan for East and North-East Region's logistical capacity.
	 Other Initiatives: Arth Ganga and Mahabahu Brahmaputra are ambitious projects initiated by the Indian government to foster holistic socio-economic development along the River Ganga and River Brahmaputra. The Arth Ganga project aims to revamp the inland waterways, contributing to the all-round development of Northeast India. Mahabahu Brahmaputra is another significant initiative with similar objectives, focusing on the Brahmaputra river. These projects are part of a broader strategy to optimize regional logistical capabilities, aligning with the National Logistic Mission. They are instrumental in fostering socio-economic development along these key river networks.









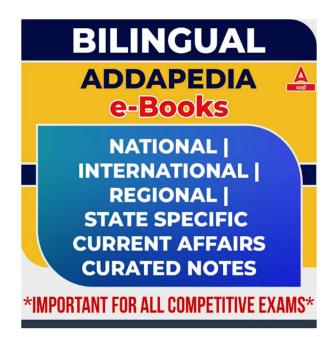
First Solar Project of NTPC



- NTPC Renewable Energy Limited's inaugural solar project in Chhattargarh, Rajasthan, has commenced commercial operations, boasting a capacity of 70 MW as of February 21, 2024.
- This development brings the total installed capacity of the **NTPC Group to 73,958 MW.**

Key points:

- Currently, NTPC-REL is actively pursuing 17 projects, collectively exceeding 6,000 MW in capacity.
- Consequently, the NTPC Group's total operational renewable energy capacity has reached 3,448 MW.
- The Chhattargarh Solar project is slated to reach its full capacity of 150 MW by March 2024, a project secured under SECI-Tranche:III, benefiting the state of Rajasthan.
- The solar plant is projected to produce **370 million units** of energy annually, catering to 60,000 households.
- It is expected to reduce CO2 emissions by 3 lakhs tons per year and conserve 1,000 MMTPA of water, equivalent to the needs of over 5,000 households annually.



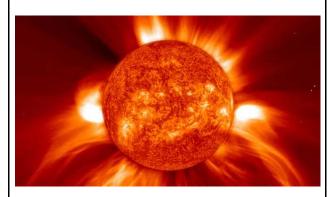








Coronal mass ejections



ISRO announced that the **Plasma Analyser Package for Aditya (PAPA)** payload aboard Aditya-L1 has successfully identified the impact of **coronal mass ejections (CMEs)**.

PAPA:

Context:

- PAPA, equipped with advanced sensors, is specifically designed for in-situ measurements of solar wind electrons and ions in the low energy range.
- It comprises two sensors: the Solar Wind Electron Energy Probe (SWEEP) and the Solar Wind Ion Composition Analyser (SWICAR), capable of measuring electrons and ions in specified energy ranges and mass spectrums.
- These sensors are also adept at determining the direction of solar wind particle arrival.
- Operational since **December 12, 2023, PAPA** continues to make continuous observations, demonstrating its effectiveness in monitoring space weather conditions and analyzing solar phenomena.

Coronal mass ejections

- Coronal mass ejections (CMEs) are large expulsions of plasma and magnetic fields from the sun's atmosphere the corona.
- Solar flares are bursts of electromagnetic radiation that travel at the speed of light, reaching Earth in just over 8 minutes .
- CMEs travel at a more leisurely pace, relatively speaking.
- CMEs can reach Earth and collide with Earth's magnetosphere, where they can cause geomagnetic storms, aurorae, and in rare cases damage to electrical power grids.
- The largest recorded geomagnetic perturbation, presumably from a CME, was the solar storm of 1859, also known as the Carrington Event.









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