

April - 09

TNPSC BITS

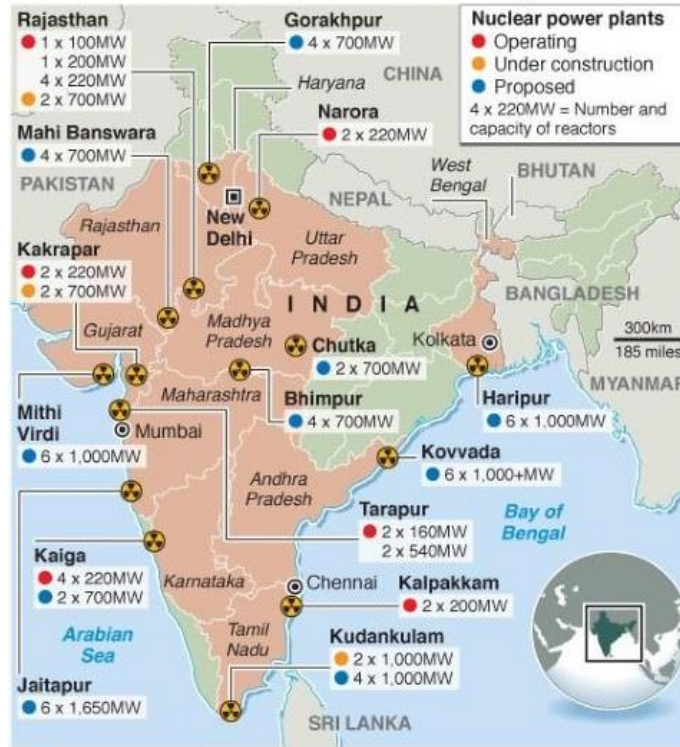
- ❖ Professor Meena Charanda, Principal of Kalindi College, Delhi University, was given the 'International Culture Award' for the year 2024.
- ❖ Adani Green Energy becomes India's first to surpass 10000 MW renewable energy.
- ❖ Bilquis Mir from Jammu and Kashmir is set to become the first woman from India to represent the country as a jury member at this year's Paris Summer Olympics.
- ❖ Abu Dhabi Future Energy Company PJSC - Masdar, the UAE's clean energy powerhouse, is gearing up to host the World Future Energy Summit (WFES).
- ❖ Tokyo Olympics silver-medallist Mirabai Chanu all but qualified for the 2024 Paris Olympics after she finished third in the women's 49kg Group B event of the IWF World Cup.
- ❖ The Microsoft and OpenAI are working together on building an artificial intelligence supercomputer called "Stargate".
- ❖ IRAH, an Indian Hindi-language science fiction thriller film based on the first AI, was released recently.
- ❖ India's first small-scale liquefied natural gas (SSLNG) unit was recently inaugurated at GAIL (India) Ltd's Vijaipur complex in Madhya Pradesh.
- ❖ The Indian Air Force is conducting a 10-day 'Gagan Shakti-2024' exercise at Uttar Pradesh to test its capabilities and preparedness for high-intensity operations.
- ❖ Chhattisgarh-based Bharat Aluminium Company Limited (BALCO), has emerged as the first Indian company to achieve the Aluminium Stewardship Initiative (ASI) Performance Standard V3 Certification.

NATIONAL

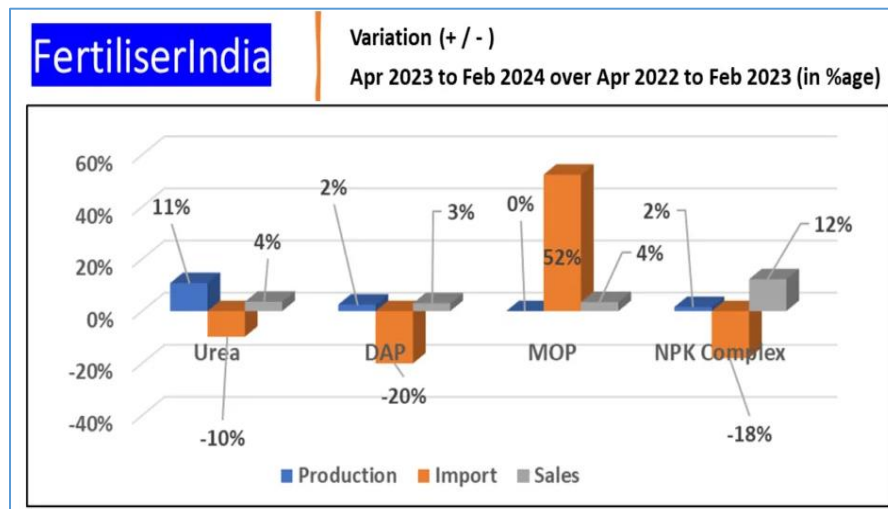
India's Nuclear Energy Roadmap

- ❖ India has set an ambitious target in the nuclear power sector, aiming to scale up its production to 1 lakh MW by 2047.
- ❖ This goal marks a substantial increase from the current production level of over 8,000 MW.

- ❖ Breeder reactors are expected to contribute 3 GW of nuclear power, while 17.6 GW will come from light water reactors with international cooperation.
- ❖ An additional 40-45 GW may be coming from pressurised heavy water reactors.



End Urea Imports by 2025

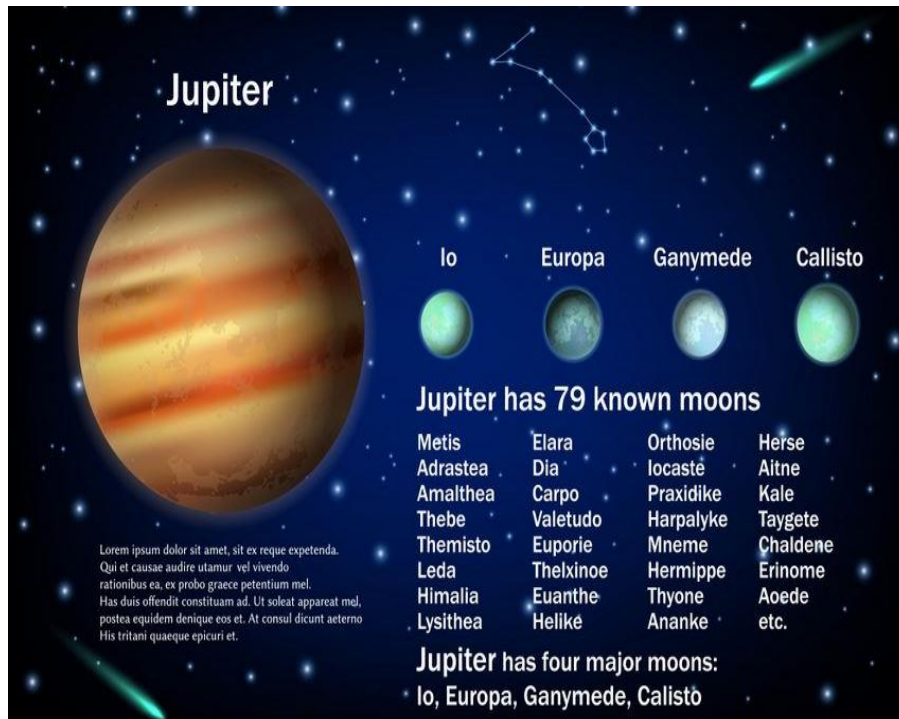


- ❖ India will by the end of 2025 stop importing urea as a massive push for domestic manufacturing has helped bridge the gap between supply and demand.

- ❖ The country has been using the chemical fertilisers for the last 60-65 years to enhance crop production.
- ❖ The government is making efforts to promote alternate fertilisers like nano liquid urea and nano liquid di-ammonium phosphate (DAP).
- ❖ India needs around 350 lakh tonnes of urea annually to meet domestic demand.
- ❖ The installed domestic production capacities have been increased to around 310 lakh tonnes from 225 lakh tonne in 2014-15.
- ❖ At present, the gap between annual domestic production and demand is around 40 lakh tonnes.
- ❖ Imports of urea fell to 75.8 lakh tonne in 2022-23 from 91.36 lakh tonne in the previous year.
- ❖ A total of 7 crore nano urea bottles (of 500 ml each) have been sold during the August 2021 and February 2024 period.
- ❖ One bottle of nano urea is equivalent to one bag (45 kg) of conventional urea.

SCIENCE AND TECHNOLOGY

Ozone on Jupiter's Moon



- ❖ The Scientists have discovered strong evidence indicating the presence of ozone on Jupiter's moon Callisto.













- ❖ The discovery of ozone on Callisto suggests the presence of oxygen.
- ❖ After Saturn, Jupiter has the most moons in the Solar System.
- ❖ Callisto is one of Jupiter's largest moons and the third-largest moon in the Solar System after Ganymede and Titan.
- ❖ More than its impressive size, Callisto is distinguished by its composition.
- ❖ Despite being as big as the planet Mercury, it has less than half as much mass.
- ❖ Callisto is primarily composed of water ice, rocky materials, sulphur dioxide, and some organic compounds.
- ❖ These substances make the moon a potential candidate for supporting life in the Solar System beyond the earth.

REPORTS AND INDICES

EIU Business Environment Rankings 2024

Top ten geographies by business environment score
(10 represents the best possible score)

Geography	Total score	Rank
 Singapore	8.56	1
 Denmark	8.41	2
 US	8.40	3
 Germany	8.35	4
 Switzerland	8.33	5
 Canada	8.31	6
 Sweden	8.29	7
 New Zealand	8.26	8
 Hong Kong	8.24	9
 Finland	8.22	10

- ❖ Globally, Singapore, Denmark and the US were the top three places to do business.
- ❖ Germany and Switzerland came fourth and fifth in the list.
- ❖ Canada, Sweden, New Zealand, Hong Kong and Finland completed the top 10 in the world.
- ❖ Greece, Qatar and India have improved the most globally in providing the best environment to businesses in the past one year.

- ❖ India is the only single-country market that offers a potential scale comparable to that of China.

Small Island Digital States - UNDP

- ❖ The United Nations Development Programme (UNDP) released a report – Small Island Digital States: How Digital Can Catalyse SIDS Development.
- ❖ It highlights the transformative potential of digital for the Small Island Developing States (SIDS).
- ❖ The report highlights five key insights for digital transformation
 - Recognizing the value and extent of digital
 - Prioritising people over technology.
 - Identify the roles, responsibilities, and comparative advantages of each sector.
 - Recognising that digital transformation is often based on ‘analogue’ and non-digital foundations.
 - Plan for the longer term.



STATES

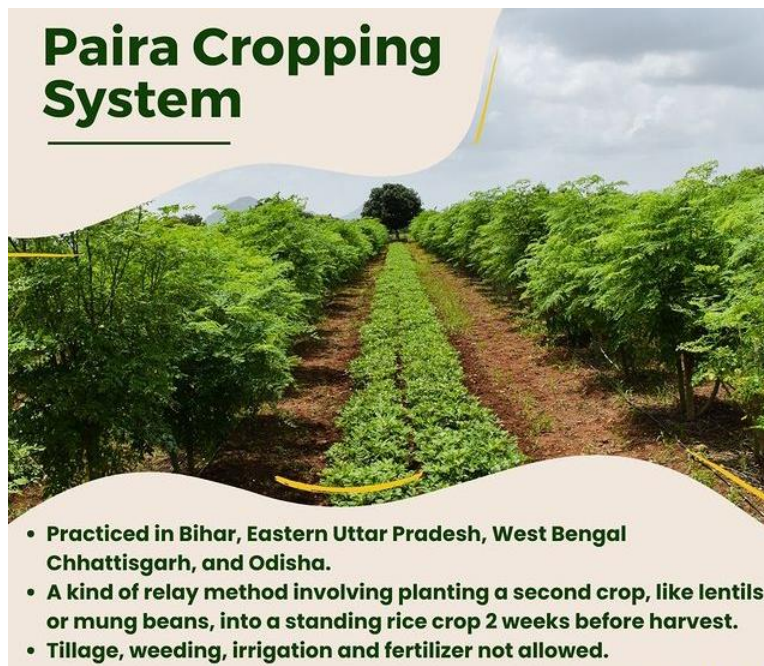
5,200-year-old Harappan settlement

- ❖ Archaeologists from Kerala University discovered an Early Harappan necropolis Juna Khatiya in Gujarat in 2019.

- ❖ It has stumbled upon more crucial findings from a 5,200-year-old Harappan settlement at Padta Bet, near Khatiya village, in Kachchh district.
- ❖ The presence of plenty of pottery, artefacts, and a few animal bone fragments from these areas are indicative of the occupation of Harappan people in the region from the Early Harappan to Late Harappan periods, i.e. circa 3200 BCE to 1700 BCE.
- ❖ The excavations also revealed remains of animal bones representing cattle, sheep or goat and edible shell fragments.



Paira cropping system



Paira Cropping System

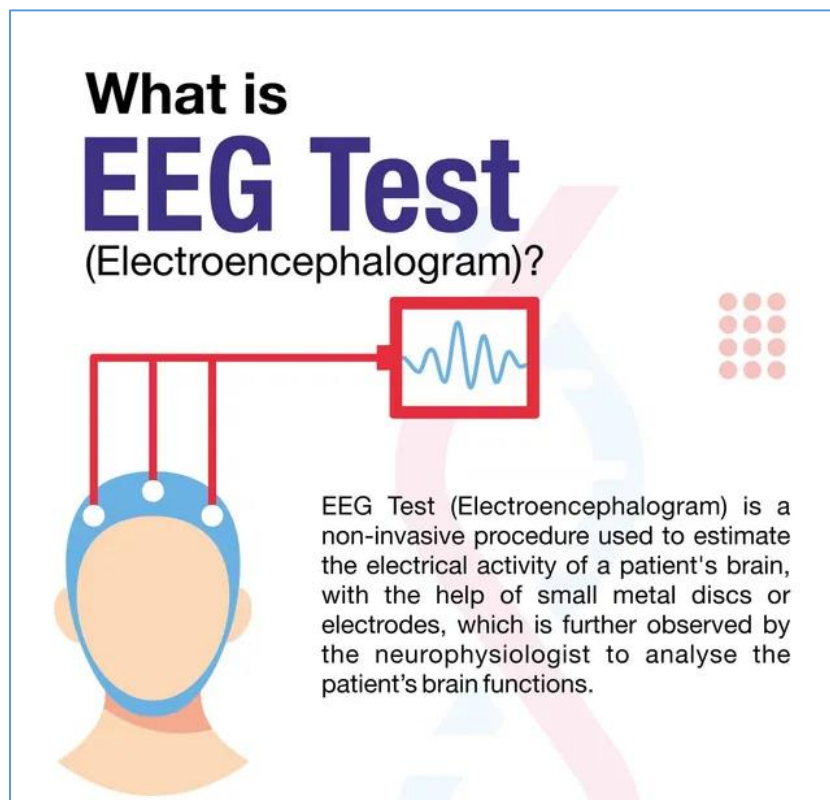
- Practiced in Bihar, Eastern Uttar Pradesh, West Bengal Chhattisgarh, and Odisha.
- A kind of relay method involving planting a second crop, like lentils or mung beans, into a standing rice crop 2 weeks before harvest.
- Tillage, weeding, irrigation and fertilizer not allowed.

- ❖ Rice fallow, or uncropped land left after rice harvest, is a major agricultural issue in eastern India.

- ❖ However, introducing technologies and crops with tailored agronomy based on landscape suitability helps turn it into an opportunity.
- ❖ It also helps farm income and ensure food and nutritional security.
- ❖ Coastal areas of the state have practiced Paira cropping system.
- ❖ Pulse crops were sown in standing paddy fields prior to harvest, utilising available moisture and requiring minimal intervention and cost.
- ❖ Eight crops are being cultivated under the scheme, including green gram, black gram, Bengal gram, and mustard.
- ❖ Odisha has a cultivable area of over 6.18 million hectares and is endowed with 10 Agro-climatic zones.

MISCELLANEOUS

100th Anniversary of Discovery of EEG



- ❖ Germany's psychiatrist Hans Berger observes rhythmic electrical activity from the scalp of human subjects in 1924.
- ❖ He was convinced that the activity arose from within the brain, he coined the term "electroencephalogram."



- ❖ The first clinical EEG laboratory was set up at Massachusetts General Hospital in 1937.
- ❖ EEG is widely used as a medical test to measure brain electrical activity in patients with or suspected to have neurological disorders.

