

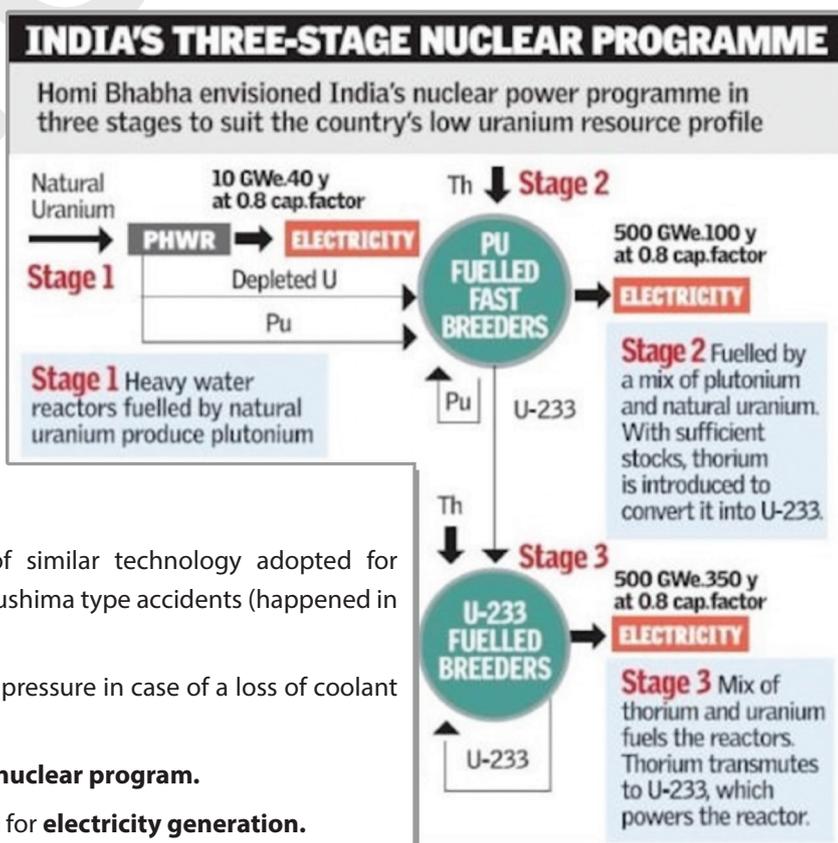
NEWS TODAY

SUPREME COURT (SC) SEEKS VIEWS OF CENTRE, STATES ON PRISON REFORMS REPORT

- Report was presented by a **SC constituted committee** (2018) to look at **issues involving jail reforms** including overcrowding of jails, condition of women and children in jails, transgender prisoners, death row convicts etc.
- **Key highlights of the report**
 - **Occupancy rate of jails in India stood at 122%** (November 2018).
 - **Existing legal provisions of sentencing**, alternative to imprisonment, such as fines, probation and admonition, **are not being used** to their full potential.
 - **Factors contributing to overcrowding:** Lack of initiative and drive of expansion or improvement in prison infrastructure, avoidable arrests and incarceration for petty offences, delay in investigation and trial etc.
- **Recommendations**
 - **Strengthen Under Trial Review Committee mechanism** to address issue of overcrowding in prisons.
 - **Revising Model Prison Manual of 2016** to include specific provisions in line with Transgender Persons (Protection of Rights) Act, 2019.
 - **Special fast-track courts to extensively deal with petty offences** and for cases **pending for five years or more.**
 - A **robust grievance redressal mechanism** and telemedicine facilities **for women inmates.**
 - **Expanding Open Prison System across entire country**, potentially fostering rehabilitation.
 - **Segregating undertrials and convicts** in prisons to curb violence.

FIRST LARGEST INDIGENOUS 700 MWE KAKRAPAR NUCLEAR POWER PLANT (KAPP 3) STARTS WORKING IN GUJARAT

- KAPP-3 is also the biggest indigenously developed variant of the **Pressurised Heavy Water Reactor (PHWR)**.
 - In 2020, it had achieved its first **criticality** (when **each fission event** releases a sufficient number of neutrons to **sustain an ongoing series of reactions**).
 - PHWRs use **natural uranium as fuel and heavy water as moderator.**
- **Enhanced safety features incorporated**
 - **Thin-walled pressure tubes:** It can **lower the severity** of an **accidental rupture** of the pressure boundary
 - **Passive Decay Heat Removal System:** On lines of similar technology adopted for **Generation III+ plants** to negate the possibility of Fukushima type accidents (happened in Japan in 2011).
 - **Steel-lined containment:** To reduce the containment pressure in case of a loss of coolant accident.
- India is currently on the **second stage** of its **three-stage nuclear program.**
 - **Enrichment** of U-235 isotope **upto 3 to 5 %** is required for **electricity generation.**





A FIFTH OF SPECIES FOUND IN UNESCO WORLD HERITAGE SITES (WHS)

- Finding is part of a **joint assessment by International Union for Conservation Nature (IUCN) and UNESCO** that highlighted **importance of WHC for conservation of ecosystem integrity and biodiversity.**
- **Other key Findings**
 - Despite **covering less than 1% of Earth's surface**, WHS harbours **over 1/5 of mapped global species richness.**
 - WHS **protects many iconic species**, such as **one-third of all elephants, tigers and pandas**, and at least **one-tenth of great apes, giraffes, lions and rhinos.**
 - **India's Western Ghats** supports **largest population of Asian elephants and tigers.**
 - For **Javan Rhinos, Pink Iguanas, Sumatran Orangutans and Mountain Gorillas**, they are **last line of defence against extinction.**
 - **Every 1°C increase in temperature could double the number of species exposed** to dangerous climate conditions.
 - Protecting WHS can **help meet targets set by Kunming-Montreal Global Biodiversity Framework (GBF)** to halt and **reverse biodiversity loss by 2030.**
 - **Threats to WHS:** global climate change and human pressures, including agricultural expansion, infrastructure development, poaching, overexploitation of resources and proliferation of invasive species.

ABOUT WHS

- It is the designation for places on Earth that are of **outstanding universal value to humanity including Cultural, natural and mixed sites**, which needs to be protected for future generations.
- There are **1157 WHS in the world, of which 40 are in India.**
- **The UNESCO: World Heritage Convention (1972) aims to protect these sites** and currently has **195 states (including India)** as party to it.

INTERNATIONAL SOLAR ALLIANCE (ISA) HOSTED ITS 5TH REGIONAL MEETING IN KIGALI, RWANDA

- Various **solar initiatives** like solarization of a rural healthcare centre, and school buildings were **launched for African Countries.**
- **Importance of African Continent for ISA**
 - **Abundant sunlight** makes it well-suited for solar power generation.
 - **Home to over 40%** of the global reserve of critical minerals (essential to low-carbon technologies).
 - **Energy access challenge is more acute** in Sub-Saharan Africa providing remarkable opportunity to **tackle energy deficits and combat climate change**
 - **Solar mini-grids and Decentralized Renewable Energy solutions** can be deployed.
- **About ISA**
 - **Headquarter:** Gurugram, India
 - **Genesis:** Launched jointly by **India and France** on the side-lines of the UNFCCC COP-21.
 - **Aim:** Mobilizing **more than USD 1000 billion** of investment needed **by 2030** for deployment of solar energy.
 - **Members-** 116 Member and Signatory countries (India flag)
 - **All member states of the United Nations are eligible** to join.
 - **Current President:** India
 - **Key Initiatives**
 - **One Sun One World One Grid** (jointly launched by India and UK) to provide power to about 140 countries through a common grid.
 - **'STAR-C', 'SolarX Startup Challenge', and 'Global Finance Facility'** for capacity building and investment in solar sector.

PRODUCTION LINKED INCENTIVE (PLI) 2.0 SCHEME FOR IT HARDWARE ATTRACTS MORE INVESTORS

- PLI 2.0 Scheme for IT hardware **doubled the outlay** while also **enhancing the incentive and tenure** as compared to PLI 1.0 (launched in 2021).
 - It was launched to provide more **flexibility to applicants** and allow a **longer duration to develop the supply chain** within the country.
- **Highlights of PLI 2.0 for IT hardware**
 - **Objective:** Provide financial incentive to **boost domestic manufacturing and attract large investments** in the value chain.
 - **Target segment:** Laptops, Tablets, All in-One PCs, Servers and Ultra Small Form Factor (USFF) Laptops **manufactured in India** and complete **for sale to consumers.**
 - **Incentives:** Around **5% on net incremental sales** over base year.
 - **Semiconductor design, IC manufacturing, and packaging** are also included as incentivised components.
 - **Tenure of incentive:** 6 years during Scheme Tenure.
 - **Applicant:** Global Company, Hybrid (Global/Domestic) Company and Domestic Company fulfilling the eligibility criteria.
 - **Ministry:** Ministry of Electronics and Information Technology
- **Challenges:** Limited Market size in India, decline in global PC market, limited scope for Startups (as the turnaround time is very long).

THE 2023 INDIA CLUSTER PANORAMA RESEARCH PAPER RELEASED BY ECONOMIC ADVISORY COUNCIL TO THE PRIME MINISTER (EAC-PM)

● Clusters, the **geographic concentrations of related economic activities** connected through local linkages and spillovers, are a **critical driver of locational competitiveness**.

- They **exist in many parts** of the economy, and **engage most sophisticated industries and firms**, including activities of multinationals.
- **Traded** (presence in national and international trade), **local** (serving local market) and **agriculture** are the **broad categories of clusters** in India.

● Significance of Clusters

- Strong clusters **can enhance the competitiveness and productivity of different regions** and sectors.
- Knowledge about appropriate clusters for each location **enables policy makers to devise location-specific growth strategies**.
- Helps **promoting policies that support women participation** in labour market.

● Key highlights of research paper

- **Maharashtra, Tamil Nadu, Gujarat, Karnataka, UP, West Bengal, Haryana** have **strong cluster strength**.
- **Composition of workforce:** 57% workers are low and semi-skilled and 15% are high-skilled workers, half of the employed workforce in India is self-employed.
- **Local clusters controlled by government** have comparatively high wages, and wages that seem least responsive to local circumstances.
- **Although urban areas offer higher wages** on average, approximately twice that of rural areas, **majority of employment (70%) is concentrated in rural areas**.

GOVERNMENT SCHEMES TO PROMOTE CLUSTER DEVELOPMENT

- Central Sector Scheme of Micro and Small Enterprises - Cluster Development Programme (MSE-CDP).
- Agro Processing Cluster Scheme.

ALSO IN NEWS



Press and Registration of Books (PRB) Act (amendment), 1867

- Centre has issued a notification for implementation of amendments to **provisions of PRB Act 1867**.
 - Amendments were brought under **Jan Vishwas (Amendment of Provisions) Act, 2023**
- **Key Highlights**
 - Removed provision of **imprisonment and rationales quantum of fines**.
 - **Press Registrar** can suspend or cancel certificate of registration on grounds of irregularity, not furnishing annual statement, etc.
 - **Jurisdiction of Press and Registration Appellate Board** extended.



Fungi

- UN Biodiversity has urged people to **use word 'funga' along with 'flora and fauna'**, to highlight importance of fungi.
- Fungi, along with **Animalia, Plantae, Protista, and Monera**, form the **Five Kingdom Classification of biology**.
- **Characteristics of Fungi:**
 - **Cell Type:** Eukaryotic
 - **Cell wall:** Present with chitin
 - **Nuclear membrane:** Present
 - **Body organisation:** Multicellular/ loose tissue
 - **Mode of nutrition:** Heterotrophic (Saprophytic/ Parasitic)



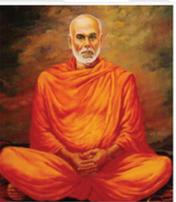
Kakapo or owl parrot

- **Genetic mapping** of Kakapo will help in their conservation.
- It is found in **Aotearoa New Zealand**.
- **IUCN Status:** Critically Endangered
- **Threats-** Habitat loss, introduction of new predators increases in hunting.
- **Features:**
 - Large, **flightless, nocturnal** parrot.
 - Breeds **once every two to five years**.
 - **Feeds** on leaves, stems, roots, fruit, nectar, seeds, etc.



Fiberization

- **Pace of laying out optical fibre** in the country **has increased** since the launch of 5G services.
- Fiberisation is the **process of connecting radio towers with each other via optical fibre** cables.
 - It facilitates full utilisation of network capacity and carries large amounts of data used in 5G services.
 - It will also aid in **providing additional bandwidth** and **stronger backhaul support**.
- In India, **currently around 38% of the towers are fiberised**, compared to 80%-90% in U.S., Japan and China.

 <p>CE-20 Cryogenic Engine</p>	<ul style="list-style-type: none"> ISRO has successfully tested the CE-20 Cryogenic engine to be used in "Mission Gaganyaan" <ul style="list-style-type: none"> Cryogenic engines use fuels at cryogenic temperatures (-150 to -273 degree C) and are comparatively more powerful than solid and liquid propellant engines. It is the first cryogenic engine to use a Gas-generator cycle using Liquid Oxygen and Liquid Hydrogen propellants combination. It has a capacity of 28 tonnes of fuel and will be used as the upper stage of Geosynchronous Satellite Launch Vehicle Mk III (LVM3).
 <p>Sparse plasma on moon</p>	<ul style="list-style-type: none"> Chandrayaan probe finds sparse plasma (having 5 to 30 million electrons per cubic meter) near the lunar surface. <ul style="list-style-type: none"> This evaluation specifically pertains to the early stages of the lunar daytime. The probe was made by RAMBHA-Langmuir Probe (RAMBHA-LP) payload. Significance of Finding <ul style="list-style-type: none"> Assist in mitigating the noise that lunar plasma introduces into radio wave communication. Enhanced designs for upcoming lunar visitors. Plasma, fourth state of matter, is gas that is so hot that some or all its constituent atoms are split up into electrons and ions, which can move independently of each other.
 <p>Space-Based Spectrum</p>	<ul style="list-style-type: none"> India's space industry has made a strong pitch for administrative allocation of satellite-based spectrum, saying the auction route could hit growth of the sector. Unlike terrestrial spectrum which is used for mobile communications, by its very nature, satellite spectrum has no national territorial limits and is international in character. <ul style="list-style-type: none"> It is coordinated and managed by UN agency, International Telecommunications Union (ITU). Satellite based communication can help in providing data connectivity in remote locations which continued to be unserved by broadband connectivity.
 <p>Kokborok language</p>	<ul style="list-style-type: none"> Kokborok is the language spoken by the Borok people belonging to Tripura. <ul style="list-style-type: none"> Borok are branch of Boro people of Assam belonging to Sino-Tibetan linguistic group and racially Mongoloids. Kokborok belong to Tibeto-Burman family and has close affinity with other language family like Bodo, Garo, Dimasa etc. <ul style="list-style-type: none"> Doulot Ahammad wrote the first Kokborok Grammar (1897). It is one of the state languages of Tripura. <ul style="list-style-type: none"> It is declared as official language of Tripura Tribal Areas Autonomous District Council.
 <p>Ramon Magsaysay award</p>	<ul style="list-style-type: none"> Assam-based oncologist Ravi Kannan is among winners of 2023 Ramon Magsaysay Award. Established in 1957, the Ramon Magsaysay Award is regarded as the Asian version of the Nobel Prize It is named after Ramon Magsaysay, the third president (1953-57) of Philippines. Ramon Magsaysay Award Foundation (RMAF) honours individuals or organizations in Asia every year for social contribution activities.
 <p>Personality in News</p>	<p>Sree Narayana Guru (1856-1928)</p> <ul style="list-style-type: none"> PM paid tribute to Sree Narayana Guru on his Jayanti. He was a Hindu saint & social reformer from Kerala. He propagated the idea of 'One Caste, One Religion, One God' Contribution <ul style="list-style-type: none"> He, along with Padmanabhan Palpu, founded the 'Sree Narayana Dharma ParipalanaYogam' (SNDP) for upliftment and education of Ezhava community. He launched the "Aruvipuram movement, one of the first moments for equal rights to temple entry. He lent support to Vaikkom Satyagraha for temple entry (1924-25) in Travancore. His works include DaivaDasakam, Anukampadasakam etc. Values – Equality, Non-violence, Compassion, Integrity, Courage etc.

