

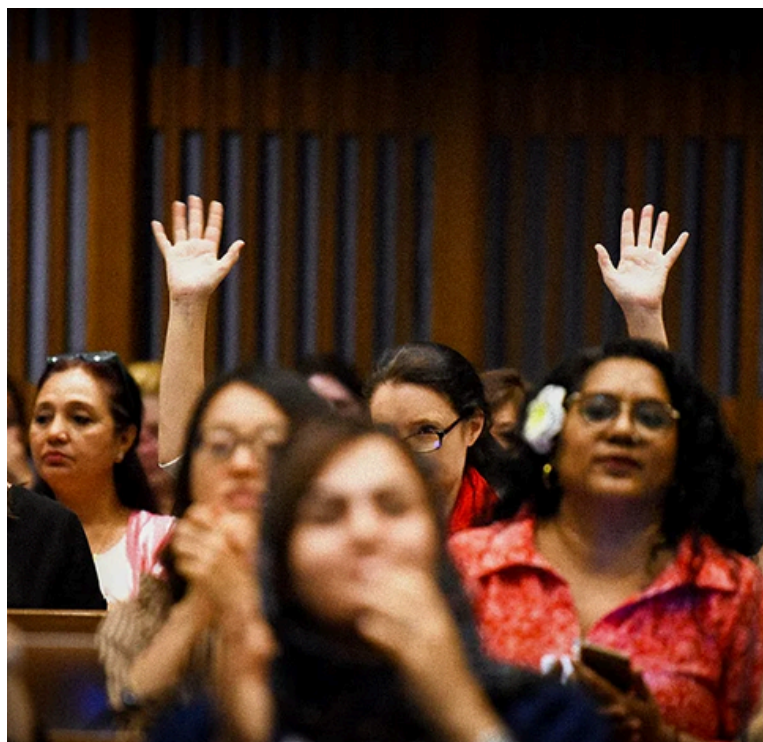
C.A.



SHORTS

GAGAN-THE DESERVING INDIA

14/07/24 - 20/07/24





WHY IS MILITANCY ON THE RISE IN JAMMU?

Recent Attacks and Pattern: On July 8, five Army soldiers were killed and five injured in an ambush in Kathua district. This was part of a series of terror attacks in Jammu since June 9, marking a resurgence of militant activity in the region that had been largely free of such incidents for the past two decades.

Security Concerns and Response: Since 2021, the Jammu region has seen 31 terror incidents with 47 security forces and 19 civilians killed. Officials attribute the increase in attacks to a reduced security presence due to troop redeployment to the China border and suggest that militants are exploiting this vulnerability.

Infiltration and Local Support: Infiltration is occurring through difficult terrain and forested areas along the LoC and IB. There is limited evidence of local support for terrorists, though the revival of Village Defence Guards/Committees is ongoing to improve local security cooperation.



NOBEL LAUREATE SUPPORTS INDIA'S PURSUIT FOR A NEUTRINO LAB

- **Significance of INO and Neutrino Research:** The India-based Neutrino Observatory (INO), if realized, would be one of the largest basic science projects in India. Neutrinos, abundant particles, are crucial for understanding the origin of matter in the universe. Nobel laureate Takaaki Kajita supports the project, emphasizing its importance for scientific progress.
- **Historical and Ongoing Efforts:** The discovery of atmospheric neutrinos in 1965 in Karnataka's Kolar goldmine by Indian, Japanese, and British scientists marked the beginning of significant neutrino research. Japan continued with neutrino experiments, leading to the establishment of the Super-Kamiokande observatory, which played a pivotal role in Nobel-winning discoveries. In contrast, the INO project, proposed in 2011 with a budget of Rs. 1,350 crores, has seen no progress, leaving its future uncertain.
- **Challenges and Advocacy for INO:** Opposition to INO arises from concerns about environmental impact and radioactivity, though INO scientists argue that the underground location would minimize these issues. Kajita points out that Japan faced less opposition due to situating their detector in an active mine. He stresses the importance of having a local neutrino laboratory for scientific advancement and urges continued efforts towards establishing the INO.

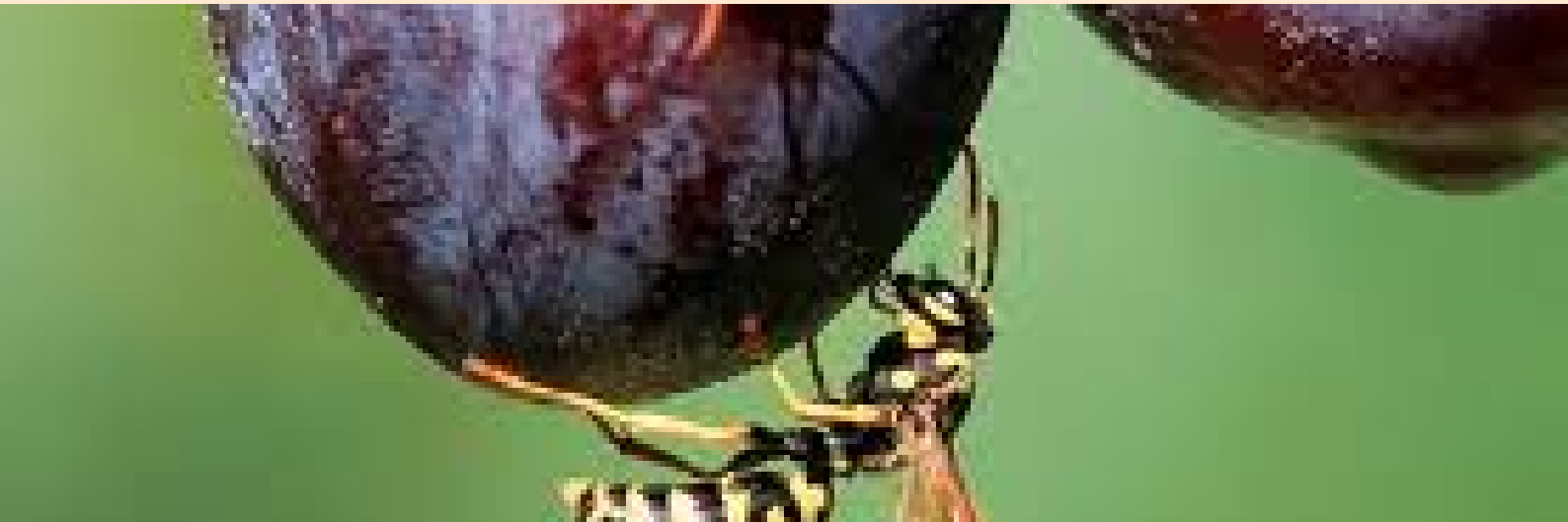


‘TECH ADVANCES LIKELY TO POSE CHALLENGES TO FIRMS’

Legal Implications of Technology Use: Advances in technology and AI are challenging corporate governance, with a notable example being a Canadian court ruling that a thumbs-up emoji constituted contract acceptance, raising concerns about similar cases in India.

Corporate Measures to Address Risks: Companies are forming separate IT/AI boards and investing in security measures, backup systems, and project management systems to address the complexities and challenges posed by technological advances.

Importance of Training and Policies: Regular training and awareness programs for boards and employees are essential. Policies should educate on the implications of technology use, such as how informal communications, including emojis, can convey legal affirmations



SCIENTISTS FIND THAT A BACTERIA TRICKED A WASP TO GET RID OF ITS MALES

THE GIST

A paper in the journal *Current Biology* showed that *Wolbachia* bacteria had manipulated the wasp *Encarsia formosa* to entirely get rid of its males

Wolbachia bacteria can induce unfertilized eggs to somehow double the chromosome number and enable the development of female wasps. It is not known how the bacteria do this, but this renders males superfluous

Wolbachia bacteria were shown to be smart enough to double the chromosome number in their host's unfertilized eggs and to supply them with tra



ON THE JURISDICTION OF THE CBI

THE GIST

The Supreme Court on July 10 upheld the maintainability of the West Bengal government's suit accusing the Union government of "constitutional overreach" by employing the Central Bureau of Investigation (CBI) to register and investigate cases in the State despite its withdrawal of general consent on November 16, 2018.

Under Section 6 of the DSPE Act, the CBI is required to obtain consent from the concerned State government before initiating an investigation within its jurisdiction.

Solicitor-General Tushar Mehta, appearing for the Union government, pressed the Court to dismiss West Bengal's suit by raising preliminary objections to its maintainability. He argued that the CBI was an "independent agency" since it did not function under the direct control of the Union government.



TRUMP SHOOTING MAY DERAIL BIDEN'S BID TO RALLY PARTY BASE

Trump's Image Transformation: Following an assassination attempt, Trump's image shifted from being seen as an instigator to a target of political violence, potentially impacting Biden's strategy.

Biden's Campaign Challenges: Biden's re-election bid, which relies on polarization, faces difficulties as his rhetoric on gun control and abortion aims to unify the Democrat base and attract swing voters.

Foreign Policy and Narrative: Biden's focus on the Russia-China axis and past foreign policy setbacks contrasts with Trump's narrative of being a victim of a deep state conspiracy, strengthening his campaign.

THE DESERVING INDIA



ON THE POLITICS OF THE NISHAD COMMUNITY

THE GIST

- Nishad is an umbrella term for dozens of riverine castes in north India. After the Mandal Commission report, they started introducing themselves as 'Nishad', a singular political and social entity.
- The Nishads of U.P. aspire for two things. One is rights over rivers and river produce, and the other is representation. The Nishads in Bihar have also been involved in similar struggles. The key demand of the community is their inclusion in the list of Scheduled Castes (SC) in the State.
- According to an estimate, the Nishad community influences the outcome of more than 20 parliamentary constituencies in U.P., especially in the Poorvanchal region and about 10 constituencies of Bihar, particularly in the north Bihar and Mithilanchal region.



ISRO HAS A PROBLEM: MANY ROCKETS, BUT TOO FEW SATELLITES TO LAUNCH

Current Launch Vehicle Capability vs. Demand: S. Somanath, Chairman of ISRO, mentioned that ISRO's launch vehicle capability was three times the demand, indicating a perceived oversupply in the market. However, the shift from a supply-driven to a demand-driven model, where satellites are only built and launched based on existing demand, may be contributing to this situation.

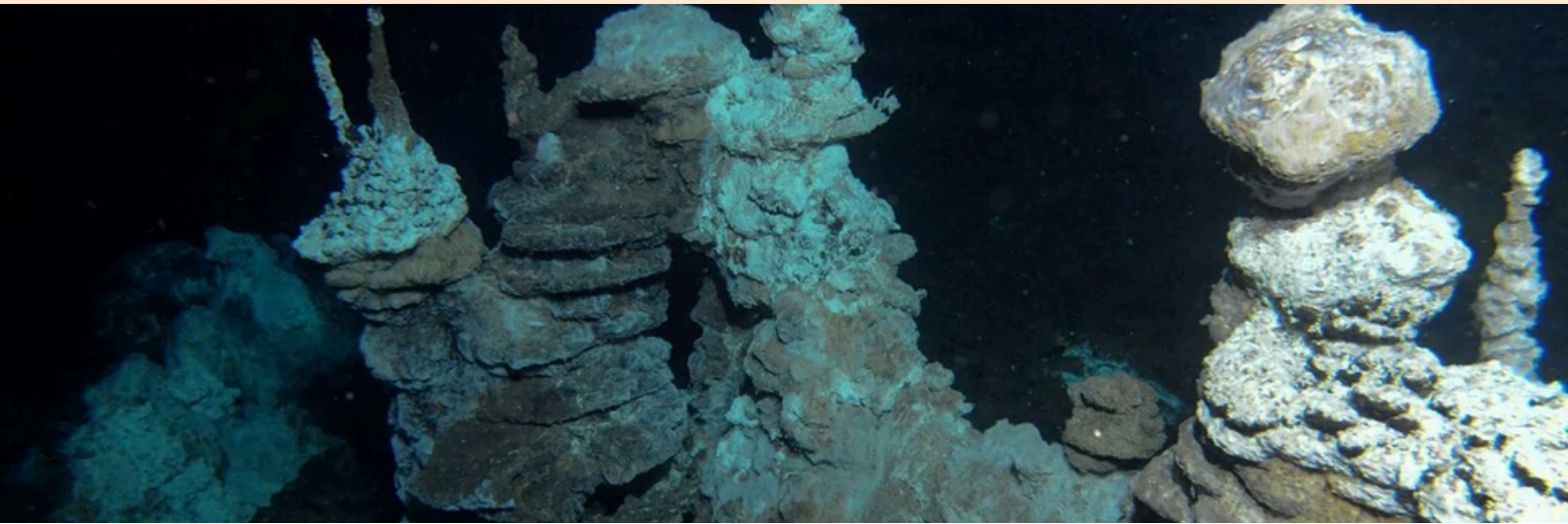
Launch Vehicle Upgrades and Limitations: India's current launch vehicles include the SSLV, PSLV, GSLV, and LVM-3. However, these are not powerful enough for certain missions, such as the upcoming Chandrayaan 4. ISRO plans to upgrade the LVM-3 and develop a new launch vehicle, the Next Generation Launch Vehicle (NGLV), to increase payload capacities.

Role of Private Sector and Government: The Indian government is encouraging the private sector to create demand, build, and launch satellites, while the government itself aims to provide launch services and upskill workers. However, private companies prefer the government to act as an anchor customer, providing reliable demand and regulations, akin to the model in the U.S. with companies like SpaceX and Blue Origin.



WPI INFLATION SOARS TO 16-MONTH HIGH

- **Increase in Wholesale Price Inflation:** Inflation in wholesale prices reached a 16-month high of 3.4% in June, driven by a significant spike in food inflation (22-month high of 8.7%) and a near-doubling in manufactured products' price gains (1.43%).
- **Surge in Food Prices:** Wholesale vegetable prices saw a 10-month high inflation of 38.8%, with notable year-on-year increases in onion (93.4%) and potato (66.4%) prices. Additionally, pulses (21.6%), paddy (12.1%), fruits (10.1%), and cereals (9.3%) also contributed to the rising food inflation, pushing primary food articles inflation to 10.9%.
- **Impact on Retail Prices and Input Costs:** The rise in the Wholesale Price Index (WPI) suggests potential upward pressures on retail prices. Furthermore, inflation in minerals (9.6%) and crude petroleum and natural gas (12.6%) indicates growing concerns over increased input costs for producers beyond food items.



GLIMPSES OF LUCA, THE LIFE-FORM FROM WHICH ALL OTHER LIFE DESCENDED

THE GIST

In 1952 researchers applied a strong electric current to a mixture of methane, ammonia, and water. This reaction formed amino acids, the building blocks of proteins

In 2019, scientists reported discovering extra-terrestrial organic material 3.3 billion years old. Japan's Hayabusa 2 mission to the asteroid Ryugu indicated the presence of more than 20 amino acids

Researchers recently constructed a phylogenetic tree of 350 bacterial and 350 archaeal genomes. Then, using a molecular clock, they estimated that LUCA possibly originated around 4.2 billion years ago, 300 million years after the earth formed

THE DESERVING INDIA



THE PROBLEM WITH BILLIONAIRE CONSUMPTION

THE GIST

A defence of billionaires' consumption would run as follows: in a liberal capitalist democracy, there are no restrictions on what one chooses to do with one's private property. Assuming that market processes are fair, billionaires' consumption expenditure — no matter how lavish — is a legitimate exercise of their private freedoms and cannot be faulted.

On the opposite end of the political spectrum, the Marxist view holds that since value is created solely by labour, profits represent an unfair extraction of value. Thus, all forms of billionaire consumption is illegitimate, since private riches are generated through a denial of the rightful claims of workers.

According to John Maynard Keynes, capitalist societies rest on a peculiar social contract. The capitalist classes are allowed greater wealth, control of production and a substantial share of net output produced each year, provided they ensure high levels of investment that generate sufficient employment and rising productivity.



NCLT PUTS BYJU'S ON IBC MAT ON BCCI PLEA

- The National Company Law Tribunal on Tuesday started insolvency proceedings for edtech firm Byju's after the Board of Control for Cricket in India complained about failure to recover \$19 million in dues, dealing another blow to a firm that was once India's biggest start-up.
- Byju's has suffered numerous setbacks in the past few years, leading to thousands of job cuts and a collapse in its valuation to less than \$3 billion from \$22 billion in 2022.
- In this latest blow, the NCLT said "it cannot be disputed" that the parent of Byju's, Think & Learn Private Ltd., had availed itself of the services of the BCCI and had defaulted on roughly ₹159 crore.
- "As we have always maintained, we wish to reach an amicable settlement with BCCI and we are confident that, despite this order, a settlement can be reached. In the meantime, our lawyers are reviewing the order and will take necessary steps to protect the company's interests," a spokesperson for Byju's said in a statement.



HOW THE SAME EAR SENSES MURMURS AND WITHSTANDS DEAFENING MUSIC

- **Mechanism of Hearing:** The human auditory system, capable of detecting faint and thunderous sounds, relies on hair cells in the cochlea. These cells have stereocilia connected by tip links that convert sound waves into electrical signals for the brain to interpret.
- **Protective Mechanism:** Tip links, composed of proteins cadherin-23 and protocadherin-15, can break to protect hair cells from loud noises. This breaking is temporary and prevents permanent damage, acting like a mechanical circuit breaker in the auditory system.
- **Research Findings:** Researchers discovered that tip links exhibit distinct responses to varying force levels, acting as force filters. They selectively transmit low forces while blocking intermediate forces and disconnecting at high forces to protect the hearing apparatus. Mutations in tip link proteins can result in inherited deafness due to the loss of mid-range force response.



ON POLITICAL REPRESENTATION OF WOMEN

THE GIST

India as a sovereign republic provided the right to vote for all its women right from the first general elections in 1952.

The important methods used across the world to ensure higher representation of women are (a) voluntary or legislated compulsory quotas for candidates within political parties and (b) quota in parliament through reservation of seats.

As on April 2024, India ranks 143 in the list of countries in the 'Monthly ranking of women in national parliaments' published by the Inter-Parliamentary Union, a global organisation for national parliaments.

THE DESERVING INDIA



POLLS HIT FRESH PUBLIC CAPEX IN Q1'

- **Decline in New Project Investments:** Due to the general elections and state Assembly polls, new government capital expenditure in Q1 of this fiscal year dropped by almost 70% to ₹1.42 lakh crore from ₹4.69 lakh crore a year earlier.
- **Sector-wise Impact:** There were significant declines in manufacturing (-41.6%), infrastructure (-35.4%), and mining (-25.5%), while irrigation projects saw a growth of 37.7% with investments worth ₹9,340 crore.
- **Private Sector Resilience:** Despite the overall decline, private sector investment commitments grew by 22.5%, with 1,696 new projects worth ₹4.95 lakh crore announced, mitigating the overall drop in fresh investment announcements.



VASCO DA GAMA'S TOXIC LEGACY IS NOW A 'PANDEMIC' THAT KILLS 8 MILLION GLOBALLY

THE GIST

- Originally cultivated by Native Americans, tobacco, was introduced to South Asia by European traders. They were instrumental in spreading tobacco use in the region though smoking was alien to Indian ethos and culture.
- The cultivation of tobacco yields over ₹22000 crore. However, this comes at a tremendous human and financial cost. The total economic cost of smoking in India, including health expenditures and productivity losses, amounts to ₹1.82 trillion annually.
- Tobacco consumption perfectly fits the definition of a pandemic. It causes over 8 million deaths worldwide annually and affects millions more through chronic diseases. The scale and severity of tobacco-related diseases, justify classification as a pandemic.



WHAT IS THE ROLE OF THE FINANCE COMMISSION?

THE GIST

The sixteenth Finance Commission headed by former Niti Aayog Vice-Chairman Arvind Panagariya has begun its work by inviting suggestions from the public on the mandate set for it by the Centre.

States argue that they should receive more funds than what is recommended by the Finance Commission as they have greater responsibilities to fulfil than the Centre. They also point out that the Centre does not even share the amount of funds recommended by the Finance Commissions, which they believe is already too low.

More developed States such as Karnataka and Tamil Nadu have also complained that they receive less money from the Centre than what they contribute as taxes.



FLARE-UP IN VEGETABLE PRICES STALLS OVERALL DISINFLATIONARY TREND

- **Consumer price inflation rose in June:** After three consecutive months of moderation, consumer price inflation increased due to a spike in vegetable prices, halting the disinflationary trend in the economy, as noted by RBI officials led by deputy governor Michael D. Patra.
- **Headline inflation and food prices:** Headline inflation, measured by year-on-year changes in the consumer price index (CPI), increased to 5.1% in June from 4.8% in May. The rise was driven by a positive momentum in food prices, which saw a significant increase in inflation from 7.9% in May to 8.4% in June.
- **Deflation and persistent food price shocks:** Despite deflation in LPG prices and unchanged deflation in the fuel and light category, vegetable prices continued to rise significantly. The officials highlighted that the persistent component of food price shocks, combined with sporadic spikes in vegetable prices, dominated headline inflation, undermining gains from lower core and fuel inflation.



SITUATION IN BANGLADESH AN 'INTERNAL MATTER', SAYS MEA

Monitoring Protests: External Affairs Minister S. Jaishankar is closely following the ongoing protests in Bangladesh, which have turned into violent clashes between students, political parties, and police.

Assisting Indian Nationals: The Indian High Commission in Bangladesh is working with local authorities to assist Indian students wishing to return home due to the uncertainty and violence. At least 15,000 Indian nationals are currently in Bangladesh.

Demands of Protesters: Protesters in Bangladesh are demanding an end to government job quotas that favor candidates from the families of 1971 freedom fighters, women, and tribes.



ISRAELI OCCUPATION OF PALESTINIAN TERRITORY 'ILLEGAL', SAYS UN TOP COURT

- **ICJ's Advisory Opinion:** The International Court of Justice (ICJ) declared that Israel's decades-long occupation of Palestinian territory is illegal and must end as soon as possible. The court also called for the cessation of new settlement activities and the evacuation of settlers from occupied land.
- **Reactions:** The opinion was strongly criticized by Israel, with Prime Minister Benjamin Netanyahu calling it a "decision of lies." In contrast, the Palestinian presidency welcomed the opinion as "historic," and Palestinian Foreign Minister Riyad Al-Maliki described it as a "watershed moment."
- **Diplomatic Implications:** Although the ICJ's advisory opinion is not binding, it is expected to increase diplomatic pressure on Israel. This comes amidst concerns over the ongoing conflict between Israel and Hamas, and the recent vote by Israeli lawmakers opposing the establishment of a Palestinian state.



INDIA PLANS TO ENTER INTO CARBON CREDITING MECHANISM WITH JAPAN

- **Joint Crediting Mechanism (JCM):** India and Japan plan to sign a Memorandum of Cooperation to establish a Joint Crediting Mechanism (JCM) for carbon trading and carbon credit adjustment. Emission-reduction credits will be shared, tracked through a registry, and allocated to the respective countries' registries to meet their Nationally Determined Contributions.
- **Project Approval and Implementation:** Projects under the JCM will be cleared by a Joint Committee, with both governments notifying and allocating the credits. The mechanism aims to boost job creation and attract investments in low-carbon and clean technologies, facilitating the diffusion of decarbonizing technologies and mitigation actions.
- **Bilateral Cooperation and Technology Transfer:** The JCM, formed under Article 6.2 of the Paris Agreement, will operate under the domestic laws of both countries. Japan will assist in transferring technology, finance, and capacity building for the joint crediting mechanism, ensuring that part of the JCM credits contribute to both countries' emission reduction goals while avoiding double counting.