

## ● POLITY

## ● ECONOMICS

## ● TECHNOLOGY

## ● ECOLOGY

## POLITY AND GOVERNANCE

**SC QUASHES RELEASE OF 11 CONVICTS IN BILKIS CASE**

**CONTEXT:** The Supreme Court quashed the order of en masse remission granted by the State of Gujarat in August 2022 to 11 men sentenced to life imprisonment for the gang rape of Bilkis Bano and murder of her family, including a two-month-old infant, during the 2002 riots.



The Supreme Court of India has strongly condemned the early release of 11 men convicted of the brutal gang rape and murder of Bilkis Bano during the 2002 Gujarat riots. The court termed the crime a "grotesque and diabolical act driven by communal hatred" and ordered the men to return to jail within two weeks.

The judgment is a significant blow to the ruling Bharatiya Janata Party (BJP) government in Gujarat, which had approved the men's premature release. The court found that the Gujarat government did not have the authority to grant remission in this case, and that the May 2022 order allowing them to consider the applications was obtained through "fraud, suppression and misrepresentation of material facts."

The court's decision upholds the rule of law and sends a strong message that heinous crimes against women will not be tolerated. It also ensures that justice is served for Bilkis Bano and her family, who have suffered for over two decades.

## INTERNATIONAL RELATIONS

**INDIA, MALDIVES DISCUSSES SPAT AS ISRAEL EMBASSY ALSO JOINS THE CONTROVERSY**

**CONTEXT:** The Ministry of External Affairs (MEA) on Monday summoned the Maldivian envoy against the backdrop of the ongoing war of words that erupted after three Deputy Ministers of the new government of President Mohamed Muizzu posted remarks that were found to be disrespectful towards India and Prime Minister Narendra Modi.

**Background**

Maldivian ministers made disparaging remarks about India's Prime Minister during his visit to Lakshadweep. This caused outrage in India, leading to online calls for boycotting Maldives tourism.

**Diplomatic Responses:**

Both countries summoned each other's envoys for explanation. Maldives suspended the three ministers involved. Indian High Commissioner in Maldives held a meeting with Maldivian officials, though details remain unclear. Boycott campaigns and damaged diplomatic relations could impact the economies of both nations.

**Escalation**

Israeli embassy in India unexpectedly posted praise about Lakshadweep's tourism potential, possibly seen as a subtle dig at Maldives. Foreign policy experts warn of further escalation, potentially harming both countries' tourism industries.



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## AWARDS

## NOLAN'S OPPENHEIMER SWEEPS GOLDEN GLOBES ON A BITTERSWEET NIGHT FOR GERWIG'S BARBIE



Oppenheimer, Christopher Nolan's drama about the inventor of the atomic bomb, topped the 81st Annual Golden Globe Awards. Oppenheimer took five prizes including best drama, best director for Nolan, best score, as well as acting trophies for Cillian Murphy and Robert Downey Jr.

## SCIENCE AND TECHNOLOGY

## DRDO COUNTER-DRONE SYSTEM READY, HANDED OVER TO PRIVATE FIRMS

**CONTEXT:** The Defence Research and Development Organisation (DRDO) developed the counter-drone system, ready for production and was already demonstrated to armed services and other internal security agencies with some orders already placed. The DRDO is now focusing on high endurance unmanned aerial vehicles (UAV) while the capability for smaller drones exists with the industry.



The DRDO is making drone-based systems and anti-drone systems based on the requirements of user agencies. The DRDO has developed a comprehensive integrated anti-drone system which comprises detection, identification and neutralisation of a drone. Three Services have already placed 23 orders on BEL for DRDO-developed technology. The above technology is suitable for detection, identification, and neutralisation of an intruding drone on our land borders also. The solutions can be customised for different challenges.

The Transfer of Technology (ToT) for above technologies has been handed over to private industries, including BEL, Adani, Larsen & Toubro (L&T), and Icom. The technology is capable of countering attacks, soft kill, and hard kill of all types of drones, including micro drones, which is being developed in the DRDO.

### In advanced stage

The Tapas Medium Altitude Long Endurance (MALE) UAV developed for the Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) application is in advance stage of developmental trials. The short-range armed UAV Archer is being developed for reconnaissance, surveillance and low-intensity conflict, and developmental flight trials are under progress.

## INTERNATIONAL RELATIONS

## LOW TURNOUT, OPPOSITION BOYCOTT RAISE CONCERNS OVER BANGLADESH POLL RESULTS

**CONTEXT:** Prime Minister Sheikh Hasina's Awami League won a landslide victory, securing 222 seats in the 300-seat parliament. This marks their fourth consecutive term in power.



### Controversies:

The election faced significant criticism due to the boycott by the main opposition BNP and allegations of violence and voter intimidation. BNP leader Khaleda Zia is under house arrest, and the party claims the election lacked credibility due to lack of competition. Human rights groups also raised concerns about a crackdown on dissent and restrictions on the media.



**Hasina's performance:**

Supporters credit Hasina for transforming Bangladesh's economy and improving its international standing. They highlight her efforts to suppress Islamist militancy and maintain stability. Critics, however, raise concerns about rising authoritarianism, shrinking press freedom, and the use of oppressive measures against dissent.

**Future challenges:**

The global economic slowdown poses new difficulties for Bangladesh's economy, potentially fuelling further unrest. Maintaining political stability and upholding democratic principles will remain key challenges for Hasina's government.

**Conclusion:**

While Hasina's victory secures her position as a dominant figure in Bangladeshi politics, the legitimacy of the election and the country's democratic future remain major points of contention.

**ECONOMICS AND DEVELOPMENT**

## ONIONS, TOMATOES, PULSES BUMP UP VEGGIE PLATE PRICES BY 12% IN DEC.

**CONTEXT:** Food inflation likely worsened in December with higher vegetarian food plate costs compared to November. Consumer Price Index for December.

### The 'OTP' effect

Onions, tomatoes record price spikes of 82% and 42% YoY, respectively; prices of pulses increased 24%

- Veg. food plate cost ₹29.7 in Dec., 3% lower than Nov., but still the second steepest in 4 months

- Sequential easing due to 14% and 3% on-month decrease in onion and tomato prices respectively



- Non-vegetarian plate costs drop 4% YoY and 5% from November levels due to cheaper broilers

The primary source of food inflation in December were onions and tomatoes, which recorded price spikes of 82 % and 42 %, respectively, while price of pulses accelerated 24 % from December 2022 levels. India's overall consumer prices had risen at a three-month high pace of 5.55 % in November, while food price inflation had surged to 8.7 % owing to steeper price rise in vegetables, pulses, fruits, and sugar.

A typical vegetarian food plate, which includes rotis, vegetables, rice, dal, curd and salad, cost ₹ 29.7 in December, about 3 % lower than November, but still the second steepest in four months. The cost of putting together a vegetarian food plate shot up 12% year-on-year last month, compared with 9% in November YoY, as per a monthly food plate costs.

With broilers' production high, their prices fell 5% to 7% on a month-on-month basis, bringing the average non-vegetarian plate's cost down 5% to ₹57.6 from ₹60.4 in November 2023. The average price of a typical non-vegetarian plate, which replaces the dal component in a vegetarian Thali with chicken, however, dropped 4% from December 2022 levels. This was attributed to a 15% dip in prices of broilers, which account for about 50% of a non-vegetarian plate cost.

**ECONOMICS AND DEVELOPMENT**

## IT IS TIME FOR A LARGE-SCALE OVERHAUL OF INSOLVENCY AND BANKRUPTCY CODE

**CONTEXT:** The Insolvency and Bankruptcy Code (IBC) came into effect in 2016 with the following objectives: maximise the value of debtor's assets; promote and encourage entrepreneurship; ensure timely and effective resolution of IBC cases; balance the interests of all stakeholders, including creditors, debtors, and staff; facilitate the promotion of a competitive market and economy; and provide for a framework to deal with cross-border insolvency cases.

**CONCERNS**

A recent settlement by the National Company Law Tribunal (NCLT), Mumbai Branch on December 19, 2023 had approved a resolution plan in respect of Reliance Communications Infrastructure Ltd. (RCIL), a wholly-owned subsidiary of Reliance Communications (RCom) owned by Anil Ambani. The NCLT admitted only ₹ 47,251 crore against the claims made by the debtors totalling ₹ 49,668 crore and the settlement was ₹ 455.92 crore, a mere 0.92 % of the debt. Interestingly the settlement will be done by Reliance Projects & Property Management Services Ltd. owned by Anil's older brother Mukesh Ambani, set to take over its assets. It has taken four years to complete the Resolution Plan (RP) as against the stipulated maximum of 330 days.

In the case of Videocon, taken over by the Vedanta Group, only 5 % of the loan outstanding on the date of declaration had been recovered by the banks. Reliance Infratel had huge assets, which were taken over by the elder Ambani for a pittance. In the Siva Industries case, C. Sivasankaran has 9 fraud cases against him, including the IDBI fraud, but his father was allowed to take over the company paying just 7 % of the loan.

**Little realisable value**

The report also mentions realisable value to the creditors as 16.9 % in 2020-21, 22.4 % in 2021-22 and 37.1% in 2022-23. One should know the admitted claims are less than the dues. While banks collect up to-date interest on loans to farmers, students, MSMEs and on housing, including penalty interest for delays, corporates are treated differently.

The RBI says the creditors realise 168.5 % of the liquidation value and 86.3% of the fair value. The reality is that banks or FCs are recovering an average of just 10-15 % in NCLT-settled cases of large corporates. As per the FSR, out of 597 liquidations, against the claim of ₹ 1,32,888 crore, the

amount realised was ₹ 5,251 crore or 3 % of the claims admitted.

The FSR of April 2023 says 'as of March 2023, there were 25,107 applications for CIRPs of corporate debts worth ₹ 8.81 lakh crore, disposed of before admission to the insolvency process.

## SCIENCE AND TECHNOLOGY

# SOUTH KOREA SUPERCONDUCTIVITY CLAIM REVIVED WITH NEW DATA

**CONTEXT:** A group of scientists affiliated with research institutes in China and Japan have reported finding a sign of superconductivity in a material in a preprint paper they uploaded to the internet on January 2.

### What is the Meissner effect?

The researchers have reported in their paper that they observed the Meissner effect in a compound called copper-substituted lead apatite. It is one of a few 'effects' certain materials exhibit when they're able to conduct electric currents without any resistance – i.e. when they become superconductors.

Scientists know many types of materials that become superconducting in different conditions – metals, metallic compounds, ceramics, hydrides, etc. They all have one thing in common: they become superconducting either when they're cooled to extremely low temperatures or when they're subjected to extremely high pressures.

Many scientists are looking for a material that becomes superconducting at room temperature and pressure (RTP). Aside from scientific curiosity, such a material would have applications worth several billion dollars. It could be used to make wires that transport electricity with zero loss; such transmission losses are the largest source of electric energy loss in the world today. The material will also have uses in medical diagnostics, computing, power generation, advanced electronic circuits, and many other fields.

### Direct current measurements

Say a material is inside a magnetic field and then the material's physical conditions are changed such that it becomes a superconductor. As it transitions to its superconducting state, the material will expel any magnetic field in its bulk to the surface. This expulsion is called the Meissner effect.

The effect can only be observed if the electric current used to produce the magnetic field is a direct current (DC). If an alternating current is used, the magnetic field will constantly switch between two directions and the material won't display the effect.

Scientists also know of two types of superconductors, depending on – among other things – how they respond to a magnetic field. If the magnetic field applied to a superconductor becomes too strong, the material will completely lose its superconducting state and allow the field to penetrate its body. These are type I superconductors.

In type II superconductors, when the magnetic field strength crosses a threshold, the extent of superconductivity inside the material will gradually drop until, at a higher second threshold, it vanishes completely.

### How did researchers do this?

Chinese researchers applied and removed a magnetic field from LK-99 samples at 4 different temperatures (-1730C, -730C, -230C, and 270C) to analyze its magnetic behaviour. LK-99 exhibited hysteresis loops, suggesting potential superconductivity near -230C. However, the superconducting regions were small, limiting critical magnetic field strength. X-ray analysis was inconclusive due to impurities like cuprous sulphide.

The study hints at LK-99's superconductivity near room temperature but lacks conclusive evidence. Further research is needed to increase the size of superconducting regions, eliminate impurities for accurate characterization and directly observe the Meissner effect at -230 C.

### Conclusion:

This study is promising but inconclusive regarding LK-99's true potential as a room-temperature superconductor. More research is crucial to confirm these findings and unlock the material's full potential.

## POLITY AND GOVERNANCE

# AN AMBITIOUS PUSH FOR VALUES, ETHICS IN HIGHER EDUCATION

**CONTEXT:** The University Grants Commission (UGC) has been issuing regulations, guidelines and directives to address issues plaguing the higher education community, the most prominent being "favouritism in hiring, training, pay and promotion; sexual harassment; gender discrimination in promotion; inconsistent view on discipline; lack of confidentiality; gender differentiation in compensation; non-performance factors overlooked in appraisals; arrangements with vendors for personal gain; and gender discrimination during recruitment and hiring".

Mulya Pravah 2.0, a modified version of Mulya Pravah, which was notified in 2019 seeks to inculcate human values and professional ethics in higher education institutions. The stated intention is to build value-based institutions by orienting individuals and institutions towards developing a deep respect for fundamental duties and constitutional values and bonding with the country.

### Emphasis on transparency

Mulya Pravah 2.0 underscores the need for utmost transparency in administration and highlights that decision-making in higher education institutions must be solely guided by institutional and public interest, and not be vitiated by biases. It seeks to abolish the discriminatory privileges of officials and urges the administration to punish the corrupt. It lays stress on the criticality of 'encouraging persons at all levels to think and give their advice freely'.



The guideline expects higher education institutions to 'ensure integrity, trusteeship, harmony, accountability, inclusiveness, commitment, respectfulness, belongingness, sustainability, constitutional values and global citizenship'. This is a laudable and timely intervention, as these values are receding. The authorities in and officers of universities must ensure that the provisions of their acts, statutes, ordinances and regulations are strictly adhered to in letter and spirit.

The guideline requires higher education administration to conduct matters ensuring accountability, transparency, fairness, honesty, and the highest degree of ethics. It reminds them to act in the best interest of their institution, create a conducive culture and work environment for teaching, learning, and research and develop the potential of their institution. It further asserts that officers and staff must 'refrain from misappropriating financial and other resources, and refuse to accept gift, favour, service, or other items from any person, group, private business, or public agency which may affect the impartial performance of duties'.

#### Issue of confidentiality

The emphasis on the need for and the importance of maintaining the confidentiality of information is bemusing as it runs counter to the right of information as an instrument to ensure accountability. Higher education institutions must, in fact, be mandated to voluntarily disclose all critical information and subject themselves to public scrutiny.

The guideline would do well to urge them to promptly upload agendas, proceedings and minutes of the meetings of their decision-making bodies, sub-committees and standing committees. They must put up their annual reports and audited accounts in the public domain. This will deter malpractices and go a long way in restoring public confidence in the workings of the institutions.

Asserting that teaching is a noble profession, and that teachers play a crucial role in 'shaping the character, personality, and career of the students', it requires them to 'act' as role models and set examples of 'good conduct, and a good standard of dress, speech and behaviour, worth emulating by students'. It asks them to abide by the provisions of the acts, statutes, ordinances, rules, policies, and procedures of their universities but maintain silence on the issue of teachers' associations.

#### Unions and support

Mulya Pravah 2.0 expects staff and student unions to 'support the administration in development activities and raise issues in a dignified manner', although this sounds like suggesting that they act and be the team B of the administration and desist from raising issues concerning their members. As the guideline does not define or delineate what 'dignified manner' entails, the provision could be misused to threaten, shun, silence or at least undermine the collective voices of the stakeholders.

Associations and unions of stakeholders are pressure groups to exert collective influence to protect the rights and interests of their members. While no one could ever suggest that they always be at loggerheads with the administration, it may be too much to expect them to take sides with the administration. The threat is real and imminent. Associations and unions of teachers, staff and students have often been

banned and suspended on the slightest pretext. Their office-bearers and elected representatives have generally been accused of violating the code of conduct and acting against the interests of their institutions. Many are fighting battles for their survival in courts of law.

Higher education institutions are communities of scholars where no one should be more equal than the other. Each stakeholder must be allowed to proactively participate in protecting, preserving and promoting the culture and standards of their institutions. The idea of collegiality must require the administration to engage with and consult stakeholders in decision-making.

### INTERNATIONAL RELATIONS

## UNDERSTANDING THE EU'S CARBON BORDER TAX

**CONTEXT:** The EU's Carbon Border Adjustment Mechanism (CBAM) aims to tax carbon-intensive imports from 2026, raising concerns for India's export-oriented industries. This summary outlines the CBAM's purpose, structure, and potential impact on India, along with potential strategies for India to navigate the situation.

#### European Union Carbon Border Adjustment Mechanism (CBAM):

The European Union (EU)'s Carbon Border Adjustment Mechanism (CBAM) intends to tax carbon-intensive products coming into the EU from 2026, is divided into two phases, with the first phase (transitional phase) kicking in from October 1, 2023. The CBAM intends to achieve the target of a 55 % reduction in greenhouse gas (GHG) emissions by 2030, compared to 1990 levels, under the European Green Deal. The proposed carbon tax on imports is an "ill-conceived" move that would become the "death knell" for India's manufacturing sector.

The CBAM's transitional phase will last until December 2025. In this stage, all EU manufacturers and importers of energy-intensive industries will need to report the GHG emissions embedded in their imports without any financial obligations. From January 1, 2026, the CBAM will enter the definitive phase wherein, upon declaration of the emissions embedded in imports, the importers will be required to surrender annually the corresponding number of CBAM certificates.

The CBAM is intended to work like the EU's Emission Trading System (ETS), which sets a cap on the amount of GHG emissions permitted. Under the EU-ETS, companies covered by the scheme have to 'buy' allowances corresponding to their GHG emissions. Financial incentives are provided to them to cut emissions. But energy-intensive industries receive free allowances to ensure their competitiveness. This is also a way of preventing carbon leakage, wherein carbon-intensive production by EU-based producers could move to non-EU countries with lax environmental regulations. The CBAM has been pitched to replace this allocation of EU-ETS allowances.

The CBAM will be applied to the actual declared carbon content embedded in the goods imported to the EU.

The formulae devised to calculate this content will be based on the EU-ETS mechanism, barring for the first year. In the first reporting year, to allow some flexibility, use of default values for the embedded emission or using the monitoring, reporting, or verification rules of the country of production is permitted. However, there is a fundamental difference between how the actual carbon content embedded is calculated and valued in other jurisdictions.

India started working on its own carbon trading mechanism. In December 2022, it amended the Energy Conservation Act, 2001, to introduce the Carbon Credit Trading System (CCTS) to combat climate change by incentivising actions for emission reductions leading to increased investments in clean energy by the private sector.

In India, the obligatory CCTS model is also coupled with the voluntary market-based mechanism called the Green Credit Programme Rules, notified by the Ministry of Environment in 2023. The scheme is aimed to encourage more environmentally proactive actions going beyond the carbon reduction mandate.

### India's options

India is reportedly among the top eight countries that will be adversely affected by the CBAM. As per the Global Trade Research Initiative report, in 2022, 27 % of India's exports of iron, steel, and aluminium products worth \$ 8.2 billion went to the EU. It is estimated that a few of its core sectors such as steel will be greatly affected by the CBAM.

India seems to have limited options to navigate the CBAM framework. The first would be to challenge the practice as being violative of the common but differentiated responsibilities principle agreed upon under the Paris Agreement. Second, the EU could collect the tax and return the funds to such countries to invest in their green technologies. This appears pragmatic, especially as the CBAM will enter the definitive phase in 2026. Thus the ongoing negotiations with the EU must be closely observed for this purpose. India has already challenged the CBAM before the World Trade Organization under the special and differential treatment provisions.



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# EXPLORING INDIA'S DIVERSE CULTURAL HERITAGE THROUGH GI TAGS

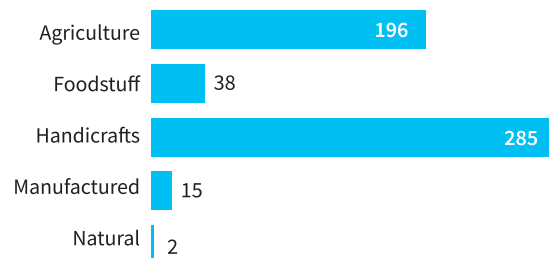
## Dissecting geotags

The charts are based on data from the Geographical Indications Registry

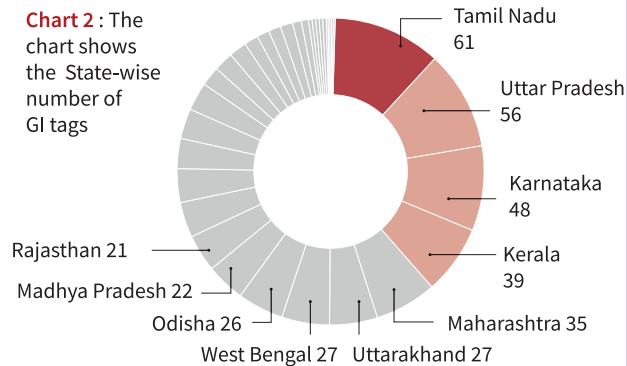


**Getting recognised:** A Lanjia Saora tribal youth working on a traditional Saora painting in Bhubaneswar. This style of painting was given a geographical indication tag recently. BISWARANJAN ROUT

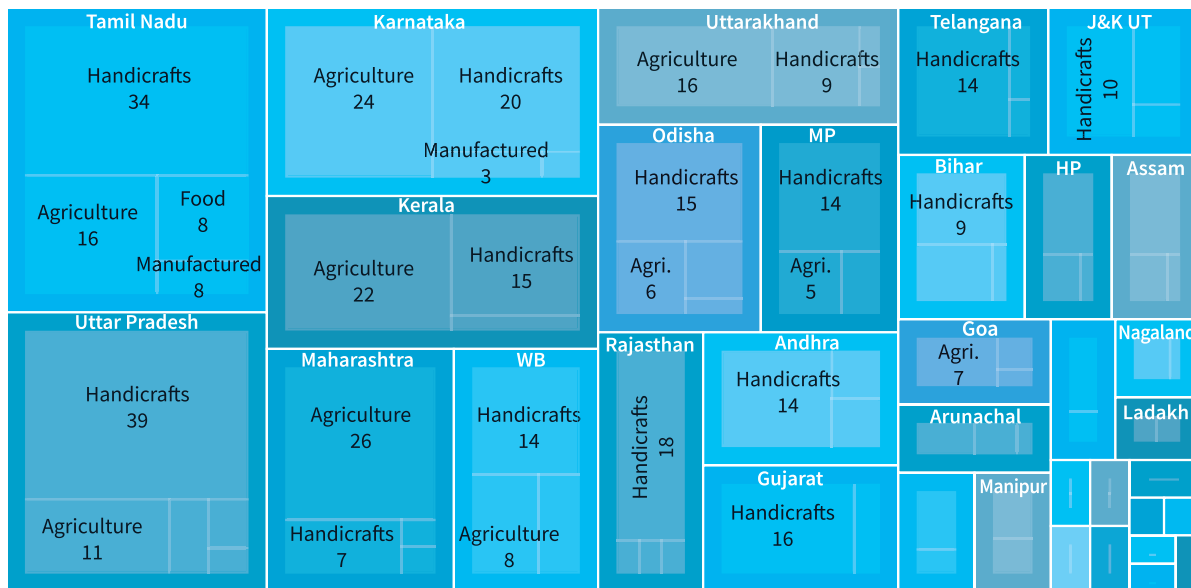
**Chart 1 :** The products in the GI registry fall under five major categories as shown below



**Chart 2 :** The chart shows the State-wise number of GI tags



**Chart 3 :** The State-wise number of GI tags across the five major categories



Last Thursday, 17 products from across six States/Union Territories got the Geographical Indications (GI) tag. The products ranged from handicrafts such as the Dongaria Kondh shawl from Odisha, to agricultural products such as the Sundarban Honey from West Bengal. A GI tag is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin.





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