



DAILY NEWS PAPER ANALYSIS

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EXPRESS**

**CIVILS WITH AKASH
SECTOR 25 CHANDIGARH**

Radio telemetry almost saved this culture from death

Prince Frederick
CHENNAI

Vultures are drawn to 'the dead'. This one was drawn to the living. Captive-bred and released in the wild, this white-rumped vulture consistently displayed a tendency to be within earshot of smartphone-carrying primates. It had taken into its bald head that humans are providers of food. The idea was likely seeded in there when the bird had a brief stay at the Kalaburagi Zoological Park in Karnataka, and had been nurtured in the Mudumalai Tiger Reserve where it had the fortune, nay, misfortune of finding human feeders from time to time.

This female vulture was being spied upon. Radio-tagged, the bird had its movements tracked in real time. Records of its peregrinations at the Mudumalai Tiger Reserve were showing up on screens at the Bombay Natural History Society (BNHS)'s establishment at Tadoba-Andhari in Maharashtra. From radio telemetry data, it was evident the vulture was not fit for the wild, and the BNHS team was considering relocating it to a breeding centre in Karnataka, where it could be used for breeding. Before the conservationists could act on that decision, the vulture met with a tragic end, being electrocuted at a power



A file photo of 'Z25', a white-rumped vulture that was fitted with a radio transmitter. SPECIAL ARRANGEMENT

transmission line in the Nilgiris in Mudumalai. If that plan had fructified, the bird would have come full circle, as it had been captive-bred at the Jayay Conservation Breeding Centre in Pinjore, Haryana, run by the Haryana Forest Depart-

ment along with BNHS. Jonathan D'Costa, conservation biologist at BNHS, points out this bird (Z25, its radio-tagged identity) was one of five white-rumped vultures to be radio-tagged at Tadoba on December 22, 2025. The

carrion-devouring quintet were released at the Tadoba-Andhari Tiger Reserve on December 30.

"After their release, the five white-rumped vultures were monitored. And Z25 in particular was observed to have not stuck around much in Tadoba-Andhari Tiger Reserve. In a week or two, it flew out of the reserve and kept going south, eventually reaching Kalaburagi city in Karnataka," Mr. D'Costa said.

Slipping out of the wild Karnataka Forest Department personnel captured the bird and kept it at the Kalaburagi Zoological Park and following consultations with their counterparts in Tamil Nadu, it was

decided the vulture would go to Mudumalai Tiger Reserve where a white-rumped vulture population existed. Amidst familiar plumage, Z25 had a reasonably good chance of getting acclimatised to the wild. But radio telemetry data showed the bird was slipping out of the wild; and this behaviour was observed on the field.

This fatal flaw in the vulture was noticed thanks to radio telemetry, and the data did help protect the bird till it ran into that power transmission line. Radio telemetry is a potent tool to study the movements of critically endangered bird species and "herd" straying individual birds into safe zones.

- Helps identify mortality causes and behavioural abnormalities.
- Supports evidence-based wildlife management.

Static Linkages

- Vultures are obligate scavengers and provide vital ecosystem services by rapid carcass disposal.
- Decline of vultures increases risks of zoonotic diseases through growth of feral dog populations.
- Keystone species influence ecosystem stability disproportionately to their population.
- Protected Area categories:
 - National Park
 - Wildlife Sanctuary
 - Conservation Reserve
 - Community Reserve
- Important wildlife monitoring techniques:
 - Radio telemetry
 - GPS/Satellite telemetry
 - Camera trapping
 - GIS & Remote Sensing
 - DNA-based monitoring

Critical Analysis

Significance

- Enables scientific monitoring of reintroduced species.
- Improves conservation planning through real-time data.
- Supports recovery of critically endangered vultures.
- Provides evidence for habitat management.

Challenges

- Behavioural conditioning in captivity reduces post-release survival.
- Electrocution from power infrastructure remains a major threat.
- Illegal use of Diclofenac persists.
- Habitat fragmentation and declining food availability.
- Limited funding and technical capacity for long-term monitoring.

Way Forward

- Expand Vulture Safe Zones across the species' range.
- Ensure complete enforcement of the Diclofenac ban.
- Promote Meloxicam and other vulture-safe NSAIDs.
- Retrofit power lines with bird diverters and insulation in priority landscapes.
- Strengthen telemetry-based monitoring of released birds.
- Improve pre-release wild-conditioning protocols.
- Enhance inter-state coordination for monitoring migratory movements.

KEY HIGHLIGHTS:

Context of the News

- A captive-bred White-rumped Vulture (*Gyps bengalensis*) (radio-tagged Z25) released by the Bombay Natural History Society (BNHS) at Tadoba-Andhari Tiger Reserve failed to adapt to natural scavenging behaviour.
- Radio telemetry revealed repeated movement towards human settlements, indicating dependence on humans for food.
- The bird was shifted from Kalaburagi Zoo to Mudumalai Tiger Reserve for acclimatisation but died due to electrocution on a power transmission line before it could be relocated to a conservation breeding centre.
- The incident highlights the importance of radio telemetry in post-release monitoring and the threat posed by power infrastructure to large raptors.

Key Points

White-rumped Vulture

- Scientific Name: *Gyps bengalensis*
- IUCN Red List: Critically Endangered
- Wildlife (Protection) Act, 1972: Schedule I
- CITES: Appendix II

Reasons for Population Decline

- Veterinary use of Diclofenac causing kidney failure (visceral gout).
- Habitat degradation.
- Food scarcity.
- Electrocution and collision with power lines.
- Poisoning of carcasses.

Conservation Measures

- Veterinary Diclofenac banned in 2006.
- Meloxicam approved as a vulture-safe alternative.
- Vulture Conservation Breeding Programme (VCBP) coordinated by BNHS, Central Zoo Authority and State Forest Departments.
- Establishment of Vulture Safe Zones (VSZs).
- Captive breeding and reintroduction programmes.

Radio Telemetry

- Tracks movement, dispersal, habitat use and survival of released animals.

The Iran conundrum and the decline of the West

Ever since 1945, the dominance of the United States and western Europe in world affairs has been taken for granted, largely because of their military power, technological innovations, and financial strength. This situation continued until fairly recently. However, the rise of China, along with the growing prominence of certain "middle powers" in recent years, has begun to dent – though not eclipse – the image of the U.S. as a superpower.

As China's influence over world affairs has grown, driven by its technological and innovative capabilities and its stranglehold over scarce strategic resources, the supremacy of the U.S. and the West has, however, appeared to wane. Many experts, nevertheless, continued to believe that there was still time before the West faced an effective challenge to its leadership. Concerns had, no doubt, grown about the U.S.'s structural vulnerabilities, though few expected that a country such as Iran could effectively deal a mortal blow to the image of the U.S. as the world's leading power.

The now deceased Iranian Supreme Leader, Ayatollah Ali Khamenei, had once observed that, while Americans constantly threatened war, they lacked "staying power". This has now become apparent in ample measures. By contrast, in the course of the Iran-Iraq war (1980-1988), Iran's Islamic regime demonstrated remarkable endurance, resilience, and determination to preserve the regime by all means necessary. U.S. President Donald Trump's failure to recognise this aspect has since cost him dearly. One leader who is seen to have emerged from the ashes of the U.S.-Iran conflict in Ali Khamenei's presumed successor, his son Mojtaba Khamenei, who is presently viewed by many as a "living martyr".

The new Iran-U.S. framework

Even prior to embarking upon substantive negotiations in Switzerland on all contentious issues, the U.S. and Iran entered into an "initial deal" (mid-June 2020) to end the war and reopen the Strait of Hormuz. The announcement of the talks was cautiously welcomed by world leaders, though all agreed that difficult negotiations lay ahead. Prior to the formal talks, a 14-point Memorandum of Understanding was, interestingly enough, signed by Mr. Trump at the Palace of Versailles, France, on June 17, 2020, evoking comparisons with the 1919 Treaty of Versailles, which is widely regarded as having imposed humiliating terms on Germany following the First World War.

The June 17 agreement was widely criticised as little more than a tactical endorsement of the status quo that had existed prior to the U.S.-Israel strikes on Iran, on February 28, 2020. The terms of the agreement included the reopening of the Strait of Hormuz, the lifting of the U.S. blockade, and a vague commitment by the U.S. and its regional partners to initiate plans, for at least \$300 billion, for the reconstruction and economic



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development of Iran – the U.S. has since declared that no U.S. funds would flow directly to Iran. If so, this commitment could possibly refer to the release of Iranian assets that have been frozen by the U.S. over the years. The agreement also reportedly contains an important pledge by Iran not to develop a nuclear weapon.

The talks in Switzerland soon thereafter seemed little more than a formality, with the U.S. claiming, following their successful conclusion, that it had achieved a major milestone by persuading Tehran to allow inspectors from the International Atomic Energy Agency back into the country, thereby opening a pathway to international monitoring of its nuclear programme. But Iran is said to have told its state media that Tehran had made "no new commitments" on nuclear inspections. The conclusion of the talks appeared to many observers to represent a "desperately needed truce" for the U.S., as it was followed shortly thereafter by the lifting of U.S. oil sanctions on Iran and the issuance of a 60-day waiver authorising the sale and transport of Iranian crude oil and petroleum products.

Newspaper headlines across the world had little to say about the deal and instead harped on the enormity of the setback to the image of the U.S. resulting from its coming to terms with Iran. Perhaps the most telling headline appeared on the front page of The Times of India (June 19, 2020): "Versailles II: Trump rushes where historians would dread to tread". Apart from the fact that the U.S. and its President have been excoriated for what critics have termed the "surrender blunder", the reality is that the deal has brought the U.S. few tangible benefits.

Intrinsic to, or as part of the deal are several other aspects of considerable interest, apart from sanctions relief for Iran's oil exports, viz., the possibility of Iran assuming a formal role in managing traffic through the Strait of Hormuz and, (potentially), changing transit fees for passage through the Strait. Questions remain, however, regarding the safety of shipping routes, vessel security procedures, naval protection, and emergency response mechanisms. Many of these issues remain to be clarified.

The deal is important, even though its wording remains inchoate. It is widely portrayed as a deal between unequals, with Goldath having been won – or at least caught unaware by David. It also does not read like a standard diplomatic document. The implications of a superpower – the world's leading nuclear power – conceding ground to a battered Iran are huge and are unlikely to be lost on nations and major powers across the globe.

Israel-U.S. relations fracture

It also entails an important rupture in relations between the U.S. and Israel. Israel Prime Minister Benjamin Netanyahu's devious plans to inveigle the U.S. in a conflict in West Asia, which was aimed at decimating Iran and establishing Israel's

undisputed supremacy over the region has now become part of the detritus of history. The Israeli-U.S. rupture, unless Tel Aviv bends substantially hereafter, could alter power equations in West Asia, leading to either an unsettled peace or further wranglings among Arabs, Iranians and Israelis.

What is also quite plausible is that Iran's claims to have bested the Great Satan, could lead the new Iranian regime, now increasingly under the tutelage of Islamic Revolutionary Guard Corps (IRGC) henchmen rather than the Ayatollahs, to revive conflicts with other Arab nations, apart from Israel itself. Such "adventurism" could lead to more disparate conflicts in a vital region, which incorporates a critical artery of global energy supplies.

Many imponderables are still present. For one, the U.S.-Iran Agreement is almost certain to give a boost to hardliners in Iran who may believe that they have managed to 'defeat' the mighty U.S., signalling scope for a still more headline policy, vis-à-vis not only Israel, the U.S., and other Arab States in the region but also their own people as well. For another, the IRGC, already on the ascendant, could feel more emboldened to act with impunity, having a new Ayatollah identified with it. The impact of all this would be felt not only in Iran but also in countries with large Shia populations, including India. A worsening of Shia-Sunni tensions in different pockets across the globe cannot, therefore, be ignored.

For a third, Israel and its leaders could be expected to behave like 'wounded tigers'. Their ploy of inveigling the U.S. into supporting their bid for supremacy in West Asia having failed – and with the U.S. President distancing himself from Mr. Netanyahu – they could be expected to embark on a fresh bout of 'adventurism', especially with their Arab neighbours and across West Asia. This could aggravate tensions and undermine the fragile peace that has existed since the Abraham Accords. Furthermore, with the U.S. seen as a major loser and its influence across the region set to wane, Gulf nations may be prompted to take a hard look at relying on the U.S. for protection against external threats, including a resurgent Iran. Interestingly, there could also be growing demands to reduce the presence of U.S. troops in West Asia.

Radical groups could regain ground

Neither Russia nor China have gained much from the conflict, even as both claim to have supported Iran and some of the other Arab countries. What the world needs to examine closely is whether this level of uncertainty could lead to the re-emergence of well-organized terrorist organisations and entities such as al Qaeda, capable of even greater destruction than their forebears. They could well become the forerunners of many more disparate Arab groups and forces centred in West Asia, capable of extending their activities from Africa and parts of Asia to Europe, if not the U.S. itself.

- Regional Implications Changing balance of power in West Asia.
- Greater strategic uncertainty in the Gulf.
- Increased importance of maritime security.
- Possibility of renewed proxy conflicts.
- Implications for India Energy security.
- Crude oil price volatility.
- Safety of Indian diaspora.
- Security of sea lanes.
- Strategic importance of Chabahar Port and INSTC.

Static Linkages

- Important Maritime Choke Points Strait of Hormuz
- Bab-el-Mandeb
- Strait of Malacca
- Bosphorus
- Suez Canal
- Panama Canal
 - International Organisations IAEA Headquarters: Vienna, Austria
 - Promotes peaceful uses of nuclear energy.
 - Implements nuclear safeguards.
 - OPEC Headquarters: Vienna, Austria
 - Coordinates petroleum policies of member countries.
- Important Treaties Nuclear Non-Proliferation Treaty (NPT), 1968
- United Nations Convention on the Law of the Sea (UNCLOS), 1982
- India's Policy Strategic Autonomy.
- Act West engagement.
- SAGAR (Security and Growth for All in the Region).

Critical Analysis

Significance

- Reduced immediate risk of regional war.
- Supports uninterrupted global energy supplies.
- Demonstrates growing role of diplomacy in conflict resolution.
- Highlights strategic importance of maritime choke points.

Challenges

- Truce remains fragile.
- Iran-Israel rivalry persists.
- Risk of proxy warfare.
- Possibility of disruption in global energy markets.
- Maritime security concerns in the Persian Gulf continue.

KEY HIGHLIGHTS:

Context

- Following military escalation between the U.S., Israel and Iran in 2026, both countries agreed to a temporary truce and initiated diplomatic talks.
- The understanding reportedly included:
 - Reopening of the Strait of Hormuz.
 - Limited sanctions relief on Iranian oil exports.
 - Discussions on nuclear monitoring by the IAEA.
- The developments have implications for:
 - Global energy security.
 - Maritime trade.
 - Regional security architecture.
 - India's strategic and economic interests.

Key Points

- Strait of Hormuz Connects the Persian Gulf with the Gulf of Oman.
- One of the world's most important maritime choke points.
- Around 20% of global petroleum liquids trade passes through it (U.S. Energy Information Administration).
- Iran Founding member of OPEC.
- Major producer of crude oil and natural gas.
- Located at the crossroads of West Asia, Central Asia and the Indian Ocean region.
- Nuclear Issue Iran is a State Party to the Nuclear Non-Proliferation Treaty (NPT).
- Nuclear safeguards are monitored by the International Atomic Energy Agency (IAEA).
- India is not a signatory to the NPT.

Power realignments may follow the United States-Iran deal

India's Concerns

- Dependence on imported crude oil.
- Safety of Indian nationals in West Asia.
- Protection of sea lines of communication (SLOCs).
- Maintaining balanced relations with Iran, Israel, Gulf countries and the U.S.

Way Forward

- Strengthen diplomatic engagement in West Asia.
- Diversify crude oil import sources.
- Expand Strategic Petroleum Reserves.
- Enhance maritime domain awareness.
- Promote regional confidence-building measures.
- Strengthen counter-terrorism cooperation.
- Continue strategic autonomy in foreign policy.

Building water security in a rapidly drying India

Indian cities – from Bengaluru to Mussoorie (Uttarakhand) – are reeling under severe water stress. June saw a monsoon rainfall deficit of over 40%. Delhi is facing a severe shortage, and water supply has plummeted to about 70% of the total demand of 1,250 million gallons per day. Research by the Council on Energy, Environment and Water (CEEW) further finds that 11 out of 15 major river basins in India are experiencing water stress, with annual water availability below 1,700 m³ per person. Several of them, including the Krishna, Cauvery, Mahi, and Tapi basins, are below the water scarcity threshold of 1,000 m³ per person. A recent report by the United Nations University Institute for Water, Environment and Health (UNU-INWEH) warns of global water bankruptcy. Several river basins are polluted and closed, with no outflow to the sea. Aquifers are being depleted beyond safe limits. Nearly three-quarters of the global population lives in water-insecure countries, with four billion people facing severe water scarcity for at least one month a year.

Water infrastructure gaps
India has an uneven distribution of water resources. With 4% of the world's water resources supporting 18% of the population, historically, the country has lived and grown with water uncertainty. While schemes such as the Jal Jeevan Mission and Pradhan Mantri Krishi Sinchayee Yojana have helped develop water supply infrastructure, concerns remain regarding the poor upkeep of existing infrastructure, inadequate wastewater treatment facilities, substantial conveyance losses, high levels of water pollution, and low cost recovery. There are four interrelated actions that can help India navigate the 'state of bankruptcy' to become water secure.

First, invest in climate-proofing water systems



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through granular climate risk assessments of water infrastructure and services. The CEEW's analysis of India's urban flood risk management shows that such assessments help prioritise investments in high to very high risk locations, including coastal and low-lying areas such as Thane (Maharashtra) and Navsari (Gujarat), or areas with critical infrastructure such as schools, hospitals, and electricity grids, as seen in Ahmedabad. These assessments are especially important for cash-strapped urban local bodies and panchayats. Cities should leverage existing mechanisms like the Urban Challenge Fund (UCF) to finance them—for instance, Visakhapatnam (Andhra Pradesh) recently secured ₹1,501 crore under the UCF for water supply and drainage, part of which could support water risk assessments.

Second, enable water reuse for non-potable purposes in urban areas. Shifting from a linear to a circular approach to water use is essential to reduce pressure on freshwater resources. Used water can be treated and reused for activities such as car washing, landscaping, and cooling data centres. City-level reuse planning is key to achieving this. The Thane Municipal Corporation is adopting a scientific approach to scale up treated wastewater reuse, including for construction, to reduce its annual freshwater deficit of 53 million litres per day and generate revenue. According to CEEW analysis, the economic opportunity from the sale of treated wastewater could reach ₹3 lakh crore and generate 100,000 additional jobs by 2047.

Third, scale up micro-irrigation systems, including drip and sprinkler technologies that deliver water to crops more efficiently than flood irrigation. Expanding these systems beyond the current 20% coverage of India's potential 72 million hectares of irrigated area requires large-scale interventions. First, the CEEW's Gujarat research shows that micro-irrigation

subsidies should be redesigned for small and marginal farmers by using 0.4 hectares instead of one hectare as the base unit. Second, farmers need support to shift to low-water, high-value crops such as horticulture and oleifera to recover costs, as seen in Andhra Pradesh's Rayalaseema region. Third, low-cost insurance with faster claims, including through a strengthened Pradhan Mantri Fasal Bima Yojana, can help smallholders manage climate and crop risks.

Close water data gaps

Finally, generate data at the river basin level to improve decision-making. India has good data on water availability, but limited data on withdrawals, losses, and consumption at the basin scale. This makes it difficult to assess actual water use, gauge efficiency gains, or allocate water judiciously – often leading one sector to gain at the expense of others, while the lack of data encourages “free riding”, with users extracting as much as the source allows. Artificial intelligence-based monitoring of water conveyance infrastructure can help detect and measure losses and also generate data. Cities such as Delhi and Bhubaneswar (Odisha) are installing smart bulk water meters to identify and reduce physical losses during distribution. Equally important is analysing end-user consumption by scaling up smart metering and using advanced water accounting tools. India's rollout of over 4.53 crore smart electricity meters can serve as a model for the water sector.

Water is an economic resource – it powers lives, livelihoods, and ecosystems. Reversing water bankruptcy will be the foundation of social welfare. Political will, transparent governance, and societal trust are the levers. Pull them, and India can still turn the tide toward a water-secure future.

The views expressed are personal

- Economic Potential Treated wastewater economy could generate ₹3 lakh crore and 1 lakh jobs by 2047.

Static Linkages

- Entry 17, State List – Water, irrigation, canals, water supply.
- Entry 56, Union List – Regulation and development of inter-State rivers.
- Article 21 – Right to clean drinking water (Judicial interpretation).
- Article 48A – Protection and improvement of environment.
- Article 51A(g) – Fundamental Duty to protect the environment.
- Water Stress: < 1,700 m³/person/year
- Water Scarcity: < 1,000 m³/person/year
- Integrated Water Resources Management (IWRM) as the guiding principle for sustainable water governance.

Important Government Initiatives

- Jal Jeevan Mission (JJM)
- Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)
- Atal Bhujal Yojana
- AMRUT 2.0
- National Water Policy (2012)
- National Aquifer Mapping Programme (NAQUIM)

Critical Analysis

Significance

- Enhances climate resilience.
- Improves urban water security.
- Reduces dependence on freshwater.
- Promotes efficient irrigation.
- Supports sustainable agriculture.

Challenges

- Over-exploitation of groundwater.
- Poor maintenance of water infrastructure.
- Low wastewater treatment capacity.
- Weak basin-level governance.
- Interstate water disputes.
- Limited real-time water-use data.
- Low adoption of micro-irrigation by small farmers.

Way Forward

- Adopt Integrated River Basin Management.
- Scale up treated wastewater reuse.
- Expand drip and sprinkler irrigation.
- Strengthen groundwater regulation.
- Universalise smart water metering.
- Improve wastewater treatment infrastructure.
- Promote rainwater harvesting and aquifer recharge.
- Encourage crop diversification towards less water-intensive crops.
- Strengthen convergence among JJM, PMKSY and Atal Bhujal Yojana.

KEY HIGHLIGHTS:

Context

- Several Indian cities, including Delhi, Bengaluru and Mussoorie, are facing acute water stress due to deficient monsoon, groundwater depletion and increasing demand.
- June monsoon rainfall recorded a deficit of over 40%, aggravating water shortages.
- Council on Energy, Environment and Water (CEEW) reported that:
 - 11 out of 15 major river basins are water-stressed (<1,700 m³/person/year).
 - Krishna, Cauvery, Mahi and Tapi river basins have entered the water scarcity category (<1,000 m³/person/year).
- United Nations University Institute for Water, Environment and Health (UNU-INWEH) has warned of global water bankruptcy due to over-exploitation of rivers and aquifers.

Key Points

- India possesses 4% of global freshwater resources but supports nearly 18% of the world's population.
- India is the largest extractor of groundwater globally.
- Around 80% of freshwater withdrawals are used in agriculture.
- Major causes:
 - Erratic monsoon and climate change
 - Groundwater over-extraction
 - Urbanisation
 - Water pollution
 - Poor wastewater treatment
 - Distribution losses
 - CEEW Recommendations Climate-proof water infrastructure.
 - Promote treated wastewater reuse.
 - Expand micro-irrigation.
 - Improve basin-level water accounting using AI and smart metering.

Manufacturing justice

Use of AI-fabricated judicial 'precedents' amounts to criminal misconduct

But for its serious implications, a judge relying on Artificial Intelligence (AI) hallucinations to arrive at a judicial determination would have been comical. Given the serious miscarriage of justice that such hallucinations can lead to, if used in the judicial processes, the Supreme Court of India has likened it to methyl isocyanate, the poisonous gas that led to the Bhopal gas tragedy in 1984 – "invisible, insidious, and catastrophic by the time anyone notices". The Court made these observations while setting aside the orders of the National Company Law Tribunal (NCLT) and the National Company Law Appellate Tribunal (NCLAT) in an insolvency case after finding that the NCLT had relied on fictitious AI-generated legal citations, a lapse overlooked by the appellate tribunal. This is the latest in a series of interventions by the Court this year, cautioning against the use of AI-generated fictitious judicial precedents in court proceedings. Through its rulings and oral observations, the Court has consistently adopted a strict and cautionary approach to the deployment of AI in the justice delivery system. On February 27, the same Bench of Justices P.S. Narasimha and Alok Aradhe took cognisance of a trial court relying on AI-generated fictitious case laws and underlined that it was not merely "an error in decision-making" but amounted to judicial "misconduct".

The Court has made clear that AI may serve as an assistive tool to improve efficiency, but it can never replace independent human reasoning, judicial discretion or professional accountability. In AI, humanity is encountering what many experts fear might well be an existential question. AI disruption is a known unknown – everyone knows that it is happening but nobody quite knows its extent or implications. There is, however, enough evidence of a combination of human stupidity and deliberate design leading to dangerous social outcomes being derived from AI. Human oversight is the essential counter to these dangers. The Court has said that presenting fabricated, machine-generated judgments to a court constitutes professional misconduct for advocates and a serious lapse of duty for judges; and any judgment influenced by an iota of fake or hallucinated AI material is "no decision in the eyes of law". The draft 'Regulations for Use of Artificial Intelligence (AI) in Courts, 2026' prohibits AI in the making of judicial outcomes such as the function of adjudication, sentencing, or deciding bail eligibility and evaluating the credibility of parties or witnesses. Even as the draft is open for public consultation, the Court has directed the Bar Council of India (BCI) to set up a dedicated committee to formulate strict norms and define disciplinary actions for lawyers who cite unverified AI material. Justice must be done and seen; not hallucinated.

KEY HIGHLIGHTS:

Context

- The Supreme Court set aside orders of the NCLT and NCLAT after finding reliance on AI-generated fictitious legal citations in an insolvency case.
- The Court observed that AI hallucinations are "invisible, insidious and catastrophic," comparing them to the Bhopal Gas Tragedy analogy to highlight their potential impact on justice.
- The Court reiterated that AI is only an assistive tool and cannot replace judicial reasoning or discretion.
- The Draft Regulations for Use of Artificial Intelligence (AI) in Courts, 2026 prohibit AI from core judicial functions such as adjudication, sentencing, bail decisions and assessment of witness credibility.
- The Bar Council of India (BCI) has been directed to frame norms and disciplinary measures against lawyers using unverified AI-generated legal material.

Key Points

- AI Hallucination: AI-generated false or fabricated information presented as factual.
- AI may be used only for:

- Legal research, Translation, Transcription, Case management, Administrative assistance
- AI cannot be used for:
 - Judicial decision-making, Sentencing, Bail determination, Evaluation of evidence, Witness credibility
- The Court held that judgments influenced by fabricated AI material are legally unsustainable.
- Human accountability remains indispensable in judicial decision-making.

Static Linkages

- Article 14 – Equality before Law.
- Article 21 – Fair procedure and access to justice.
- Articles 32 & 226 – Constitutional remedies.
- Rule of Law – Basic feature of the Constitution.
 - Principles of Natural Justice Audi Alteram Partem (Right to be heard)
 - Nemo Judex in Causa Sua (Rule against bias)
 - Reasoned decisions
- e-Courts Mission Mode Project – Digital transformation of the judiciary under the National e-Governance Plan.

Critical Analysis

Positives

- Improves legal research and case management.
- Reduces administrative workload.
- Facilitates translation and digitization of court records.
- Enhances efficiency under the e-Courts Mission Mode Project.

Challenges

- AI hallucinations may fabricate legal precedents.
- Lack of explainability ("Black Box AI").
- Algorithmic bias may affect fairness.
- Threat to Rule of Law and judicial independence.
- Weakens public confidence if relied upon for adjudication.

Way Forward

- Finalize AI regulations for courts.
- Mandate human verification of all AI-generated legal outputs.
- Train judges and lawyers in responsible AI usage.
- Develop authenticated Indian legal AI databases.
- Establish AI audit and accountability mechanisms.
- Promote Explainable AI (XAI) in judicial administration.

Counting cancer

Making cancer a notifiable disease at the national level is the way forward

What's good for the goose is surely good for the geese. What the States will benefit from, the country could too. In India, cancer is not a notifiable disease at the national level, keeping with the Health Ministry's position that such notification is only for communicable diseases. Population-based cancer registries and hospital-based cancer registries are currently the only national tool at the disposal of the Centre to count cancer cases. Unfortunately, these registries cover about 10%-16% of the population, and have an urban, government health care set-up skew. However, several States have taken the lead on this front, making cancer a notifiable disease within their boundaries. Telangana is the latest to join the list of States that have made cancer a notifiable disease, bringing the total number of States doing so to 17.

With the Global Cancer Observatory (affiliated to the World Health Organization) projecting an estimated increase of 1.05 million cases between 2022 (1.41 million) and 2045 (2.46 million), the rise is expected to be a staggering over 74%. Given these projections, thanks to an increasing life span and ageing demographics, changes in lifestyle and diet, it becomes all the more important to be armed with data and get ready for vanguard action from a public health point of view. While State action can, to an extent, solve the data question, any benefit thus derived from notifying health authorities of every single case of cancer, it cannot become a rubric by which the nation can contour its cancer control programme. Apart from existing registries covering mostly urban and semi-urban posts, care in India is also delivered in good measure through the private sector and that data set is not uniformly captured. The Indian government must pay heed to its own counsel, the Indian Council of Medical Research, National Centre for Disease Informatics and Research (now ICMR-NINE) had recommended that cancer be made a notifiable disease years ago. It is a fact that establishing cancer as a notifiable disease will mean a sudden increase in the number of cases being recorded, but it must not be considered a liability. Instead, it is merely part of the process of crafting a studied, and evidence-based response – health care and information, education, and communication (IEC) – to cancer at the country level. While bold advances in research and treatment methodologies have retrieved cancer from the fear and the utter helplessness surrounding it, the heart of the issue remains the lack of data. Taking lessons from the States, the Centre must recalibrate and make cancer a notifiable disease in India.

KEY HIGHLIGHTS:

Context

- Telangana became the 17th State to notify cancer as a notifiable disease, making reporting of every diagnosed case mandatory.
- India has not declared cancer a nationally notifiable disease.
- ICMR–National Centre for Disease Informatics and Research (NCDIR) has recommended nationwide notification to strengthen cancer surveillance.
- According to the WHO–International Agency for Research on Cancer (IARC) – Global Cancer Observatory, India's cancer cases are projected to increase from 1.41 million (2022) to 2.46 million (2045) (~74% increase).

Key Points

- Notifiable Disease: A disease that must be reported to public health authorities under prescribed regulations.
- India currently estimates cancer burden through:
 - Population-Based Cancer Registries (PBCRs)
 - Hospital-Based Cancer Registries (HBCRs)
- Existing registries cover only 10–16% of India's population.

- Cancer data from the private healthcare sector remains inadequately captured.
- Nationwide notification would improve:
 - Disease surveillance
 - Resource allocation
 - Early detection and screening
 - Research and policy formulation
 - Monitoring of regional disease burden

Static Linkages

- Health and Hospitals – Entry 6, State List (Seventh Schedule).
- Article 21 – Right to Life includes the Right to Health (Judicial interpretation).
- National Health Policy, 2017 – Prioritises prevention and control of Non-Communicable Diseases (NCDs).
- National Programme for Prevention and Control of Non-Communicable Diseases (NP-NCD) – Screening and management of common cancers, diabetes, cardiovascular diseases and stroke.
- National Cancer Registry Programme (NCRP) – Coordinated by ICMR-NCDIR.
- Population-Based Cancer Registry (PBCR): Measures cancer incidence in a defined population.
- Hospital-Based Cancer Registry (HBCR): Collects clinical, treatment and survival data.

Critical Analysis

Significance

- Enables reliable estimation of national cancer burden.
- Facilitates evidence-based policymaking.
- Strengthens early diagnosis and preventive healthcare.
- Improves allocation of oncology infrastructure and manpower.
- Supports achievement of SDG 3 (Good Health and Well-being).

Challenges

- Limited digital reporting infrastructure.
- Poor integration of private healthcare data.
- Shortage of trained cancer registrars.
- Data privacy and confidentiality concerns.
- Variation in reporting standards across States.

Way Forward

- Notify cancer as a nationally notifiable disease.
- Expand National Cancer Registry Programme coverage.
- Integrate reporting with the Ayushman Bharat Digital Mission (ABDM).
- Mandate reporting by both public and private healthcare institutions.
- Strengthen screening under NP-NCD.
- Ensure robust data protection and interoperability.
- Increase investment in oncology infrastructure and awareness programmes.

At 250, the US can still reinvent itself – and the world

AS AMERICA turns 250, much in Washington's current politics distracts Indian attention — Donald Trump's antics in capturing the historic moment for personal glory, his diplomatic style that breaks from protocol, disputes on tariffs and technology, America's new dalliance with the Pakistan army, and the anxiety in Delhi at the prospect of a US-China condominium in Asia. But major anniversaries demand a longer view. For Indians trying to understand the future of the US, the more important story lies beneath the unending political noise from Washington: The repeated reinvention of American capitalism. That process has shaped not only America's domestic evolution but also the international order it has led for much of the past century.

In reflecting on the American revolution, we must also consider the other, intellectual revolution that occurred in 1776. While Britain's 13 North American colonies proclaimed their independence, Adam Smith published *The Wealth of Nations*, which laid the intellectual foundations of modern capitalism. Over the next 250 years, the two evolved together. America's greatest contribution to the modern world has not only been its leadership of capitalist development, but also its extraordinary capacity to reinvent it. Every reinvention transformed the nature of production at home, reconfigured US politics, and restructured the international system.

In the 19th century, factories, railroads and mechanised production transformed an agrarian republic into the world's leading industrial economy. Capital, machines and labour were brought together on an unprecedented scale. Productivity soared, cities expanded, and American industry became the foundation of national power.

The second reinvention arrived in the early 20th century with Frederick Winslow Taylor's scientific management and Henry Ford's moving assembly line reorganising work itself. Charlie Chaplin captured both the brilliance and the absurdity of this new industrial order in *Modern Times*. His unforgettable image of a worker swallowed by the assembly line remains one of the sharpest commentaries on modern capitalism. Fordism produced mass prosperity, but it also demanded that human beings adapt themselves to the rhythm of machines.



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represent a much broader technological ecosystem. Combined with recursive self-improvement, the emerging AI systems promise to reshape manufacturing, logistics, healthcare, and many other sectors. With proclamations that Artificial General Intelligence (AGI) and Artificial Super Intelligence (ASI) are not far away, the future could be here much faster than many imagine.

The new technologies change the very character of capitalism. Industrial capitalism depended on moving production to where labour was cheapest. Techno-capitalism depends increasingly on algorithms, computing power, data and intelligent machines. It also involves building massive new infrastructure within the US. Wealth now flows less from employing large and cheap workforces than from owning the technologies that can substitute for them.

Left-wing historians in the US have argued that technological revolutions do not merely transform capitalism; they are shaped by capitalism itself. That insight is especially relevant today. The age of AI will not simply produce new technologies. It is intensifying already heavy concentrations of economic power. Political institutions are nowhere near limiting their reach and power. But efforts are on, if at a nascent stage. Every reinvention of capitalism has eventually produced a recasting of politics. The rise of giant industrial trusts produced the "progressive era" and antitrust legislation at the turn of the 20th century. The Great Depression produced the New Deal and a new social compact between capital and labour. The digital revolution has revived concerns over monopoly and market concentra-

tion. If Lina Malhi Khan led the legal battle against tech platforms as the chair of the Federal Trade Commission under the Biden Administration, sections of the MAGA movement are now revolting against the excessive adoption of AI.

AI and robotics are reopening familiar questions in unfamiliar forms: Who owns the machines, who captures the enormous productivity they generate, how should that new wealth be distributed, and what obligations does capital owe to society? The answers will shape the future of the American republic and rebalance the relationship between innovation, capital and society. The consequences of techno-capitalism will not stop at America's shores. Every previous iteration of American capitalism has reshaped the international system. Industrial capitalism in a massive continental state made the US a superpower. Fordism underpinned its global leadership after World War II. Globalisation spread American capital, technology and finance across the world. Techno-capitalism promises another global reordering — by redistributing economic and military power and transforming global institutions.

The US at 250 is deeply divided at home and at odds with itself. The rise of Trump is indeed the visible manifestation of it. But American history cautions us against writing off a republic that has repeatedly reinvented both its capitalism and the politics needed to govern it at home and lead it abroad. The age of AI is unlikely to be different.

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The consequences of techno-capitalism will not stop at America's shores. Every previous iteration of American capitalism has reshaped the international system

KEY HIGHLIGHTS:

Context

- The United States completed 250 years of Independence (1776–2026), highlighting debates on its future economic model.
- The U.S. is entering a new phase of Techno-Capitalism, driven by Artificial Intelligence (AI), advanced semiconductors, cloud computing, biotechnology, and robotics.
- This transition is expected to reshape global trade, manufacturing, labour markets, geopolitical competition, and international institutions.
- For India, it has implications for India-US relations, Global Value Chains (GVCs), semiconductor manufacturing, AI governance, and economic security.

Key Points

What is Techno-Capitalism?

- Economic system where AI, data, algorithms, computing power, semiconductors and intellectual property become the primary drivers of growth.
- Greater reliance on automation and intelligent machines rather than labour-intensive production.
- Competitive advantage shifts from cheap labour to technological innovation.

Evolution of American Capitalism

1. Industrial Capitalism (19th Century): Mechanisation, railways and factories.
2. Fordism (20th Century): Mass production and assembly-line manufacturing.
3. Globalized Capitalism (Late 20th Century): Expansion of Global Value Chains (GVCs).
4. Techno-Capitalism (21st Century): AI, robotics, semiconductors, cloud computing and biotechnology.

Global Implications

- Reconfiguration of Global Value Chains (GVCs).

- Growing importance of critical technologies and semiconductor supply chains.
- Intensification of US-China technological rivalry.
- Increased focus on economic security and strategic industrial policy.
- Rise of AI governance and digital regulations.

India's Significance

- Opportunity under the China+1 Strategy.
- Supports:
 - India Semiconductor Mission
 - IndiaAI Mission
 - Production Linked Incentive (PLI) Scheme
 - Digital India
 - National Quantum Mission
- Need to strengthen:
 - Domestic manufacturing
 - R&D ecosystem
 - Skilled workforce
 - AI governance
 - Cybersecurity

Static Linkages

- Industrial Revolution transformed global production systems.
- Comparative Advantage is dynamic and technology-driven.
- Global Value Chains (GVCs) enhance international specialization.
- Intellectual Property Rights (IPR) promote innovation.
- Industrial policy is increasingly linked with national security.
- Human capital and innovation are key determinants of economic growth.
- Strategic technologies influence geopolitical power.

Critical Analysis

Opportunities

- Higher productivity and innovation.
- Expansion of high-value manufacturing.
- Stronger semiconductor ecosystem.
- Growth in AI-driven industries.
- Opportunity for India to become an alternative manufacturing hub.

Challenges

- Automation-led job displacement.
- Digital divide and skill gaps.
- Concentration of market power in Big Tech.
- AI ethics, privacy and cybersecurity concerns.
- Technology protectionism affecting developing countries.

Way Forward

- Increase R&D expenditure.
- Develop semiconductor manufacturing capacity.
- Invest in AI and digital skill development.
- Strengthen AI governance and data protection.
- Promote resilient supply chains.
- Deepen India-US cooperation in critical technologies.
- Encourage innovation through startups and academia-industry collaboration.

Thank you, Justice Jamdar

WHY CAN'T citizens protest government decisions and raise slogans? The police are servants of the people, not of top government functionaries. That question and that statement by a single-judge bench of Bombay High Court need to be celebrated. In a way, in setting aside the externment order issued by Mumbai Police against a political activist, by pointing out that in the absence of evidence that the protester posed a danger to public safety or property, the order affected his constitutionally guaranteed fundamental rights, Justice Madhav J. Jamdar was only abiding by the Constitution, in letter and spirit, in their fullest form. After all, the judiciary is the custodian of citizen freedoms and a bulwark against their encroachment if and when the state becomes overreaching. And yet, Justice Jamdar's order on Thursday is also extraordinary. These are times when amid rising polarisation and receding common ground, powerful governments seek to subdue institutions and dominate spaces. They label and criminalise dissent and crack down on political opponents. In the name of the people, they create an architecture of distrust of the citizen. They use democratic instruments to shrink democratic spaces. In times like these, the Bombay High Court has asked a powerful question and spoken a truth to democracy.

The petitioner in the case, Saeed Ahmad Abdul Wahid Chaudhary, general secretary of the Social Democratic Party of India, had organised or participated in protests, allegedly without police permission, against the BJP-led government's decisions on the CAA/NRC, Babri Masjid and sealing at the Gyanvapi mosque. These tangled issues have touched off concerns, especially vis-à-vis the rights of minorities. They call for conversations that make space for citizens to ask difficult questions and express grievances — not for the state to wield extraordinary legal tools against them to send out a chilling message and strip them of their freedom and dignity. When Justice Jamdar asks the police if citizens are being made "slaves of government" by slapping cases for opposing government decisions, he points to the danger that comes from institutions bending to power, smudging lines that separate them and imperilling spaces for checks and balances to kick in.

Justice Jamdar's order will, hopefully, strike echoes in the system. The state must not challenge it. This is an opportunity to correct course. The relief given to an activist by a judge in Mumbai could become a moment for reflection, an act of redeeming. But even if cynicism triumphs and this is a mere flash in the judicial pan, it did shine very bright. Thank you, Justice Jamdar.

KEY HIGHLIGHTS:

Context of the News

- The Bombay High Court quashed an externment order issued against a political activist for participating in protests against government decisions.
- The Court held that peaceful dissent cannot be curtailed unless there is credible evidence of threat to public order, public safety, or public property.
- The judgment reaffirmed that the right to peaceful protest is an integral part of the Fundamental Rights guaranteed under Article 19, subject to reasonable restrictions.

Key Points

- Peaceful protest is protected under Articles 19(1)(a), 19(1)(b) and 19(1)(c).
- Restrictions can be imposed only under Articles 19(2) & 19(3) on specified constitutional grounds.
- Externment is a preventive measure and cannot be used arbitrarily to suppress lawful dissent.
- Judicial Review acts as a safeguard against executive excesses.
- Democratic governance requires protection of constitutional morality, rule of law, and civil liberties.

Static Linkages

- Article 14 – Equality before Law.

- Article 19(1)(a) – Freedom of Speech and Expression.
- Article 19(1)(b) – Right to Assemble Peacefully and Without Arms.
- Article 19(1)(c) – Freedom to Form Associations.
- Articles 19(2) & 19(3) – Reasonable Restrictions.
- Article 21 – Protection of Life and Personal Liberty.
- Articles 32 & 226 – Constitutional Remedies.
- Basic Structure Doctrine.
- Rule of Law.
- Judicial Review.
- Doctrine of Proportionality.
- Difference between Law & Order, Public Order, and Security of the State.

Critical Analysis

Significance

- Protects democratic dissent.
- Prevents arbitrary executive action.
- Reinforces constitutional supremacy.
- Strengthens judicial independence.

Challenges

- Balancing public order with civil liberties.
- Misuse of preventive laws.
- Chilling effect on democratic participation.
- Need for objective standards while imposing restrictions.

Way Forward

- Ensure restrictions satisfy the test of reasonableness and proportionality.
- Prevent misuse of preventive detention/externment provisions.
- Strengthen police accountability through judicial oversight.
- Promote dialogue before resorting to coercive measures.
- Uphold constitutional values while maintaining public order.