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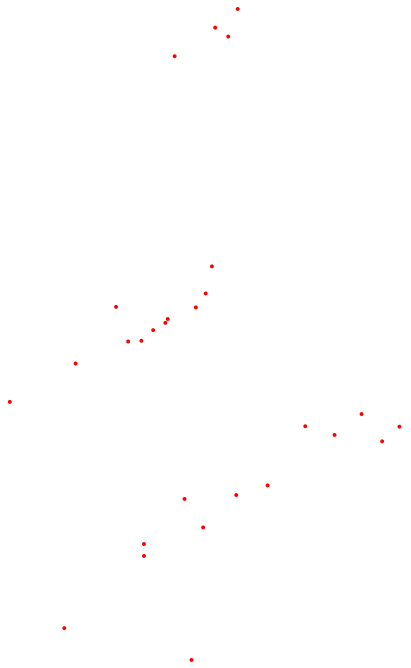
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10 MCQ QUIZ

- 
- **"There are no secrets to success. It is the result of preparation, hard work, and learning from failure."**
— *Colin Powell*
- 

SC questions ED actions in liquor scam probe

Court extends the stay on Central agency's probe; questions ED's encroachment on State's authority

Is the federal structure affected, and why couldn't local police conduct the probe, CJI Gavai enquires

State Vigilance Department had registered 47 FIRs from 2014 to 2021, says Sibal for TASMAC

Aaratrika Bhaumik
NEW DELHI

Extending the stay on the Enforcement Directorate's probe into money laundering cases registered against the Tamil Nadu State Marketing Corporation (TASMAC) in connection with an alleged liquor retail scam, the Supreme Court on Tuesday orally questioned whether the agency's probe encroached upon the State's authority to investigate offences.

Hearing petitions filed by TASMAC and the Tamil Nadu government, a Bench of Chief Justice of India B.R. Gavai and Justice K. Vinod Chandran directed that the case be listed after the court pronounces its judgment on the review petitions challenging its 2022 ruling in *Vijay Madanlal Choudhary vs Union of India* case.

During the hearing, Chief Justice Gavai asked Additional Solicitor-General S.V. Raju, appearing for the ED, "What happens to the federal structure? Would this not amount to encroachment upon the State's right to investigate? Can't the local police look into the matter?"

In its 2022 verdict, the court had held that providing a copy of the Enforcement Case Information Report (ECIR) to the accused is not mandatory in every instance. While TASMAC has argued that it was denied access to the ECIR in the present proceedings, the ED maintained that the ECIR is merely an "internal administrative document" and that no legal right exists for the accused to obtain a copy.

This marks the second occasion in six months that the court has questioned the ED's conduct in the

case. In a previous hearing on May 22, the Chief Justice had orally observed that the agency was "crossing all limits" while ordering an interim stay on its probe. The Madras High Court had earlier declined to grant such a stay.

Appearing for TASMAC, senior advocate Kapil Sibal submitted that the State Vigilance Department had already registered 47 FIRs relating to alleged irregularities between 2014 and 2021. Referring to ED's searches at TASMAC's corporate offices in 2015, he asked, "How can you raid government offices? What happens to the federal structure of this country?"

'Large-scale corruption'
Citing Section 66 (2) of the Prevention of Money Laundering Act (PMLA), Mr. Sibal contended that the provision requires the ED to share information regard-



Enforcement Directorate officials conducting a raid at Tamil Nadu State Marketing Corporation headquarters in Chennai. FILE PHOTO

ing offences with the State authorities conducting parallel investigations, which had not been done. He further argued that the ED had also expanded its remit to probe the underlying aspect of corruption.

Mr. Raju, for the ED, countered that there was

"large-scale corruption" and that the agency was investigating only the money-laundering component. He maintained that the "predicate offence", which forms the basis for ED action, was established through FIRs registered by the State itself, and that the

agency had uncovered incriminating material during its probe.

To this, the Chief Justice remarked, "Law and order must operate within its own domain... what happens to the federal structure otherwise?"

When the Bench pointed out that the State had already filed multiple FIRs, Mr. Raju remarked, "They have also closed 37 FIRs in a short time. Once the predicate offences go, the ED's case collapses. They are attempting to cut off the ED by closing the FIRs."

Favourable report

As the hearing progressed, the Chief Justice, however, refrained from making any adverse comments on the ED's functioning. "In the last six years, I have seen many cases of the ED. But I do not want to say something, else it will again be re-

ported [in the media]," he said.

Responding to this, Mr. Raju said the media seldom reported favourably on the agency's work. "Anything in our favour is hardly reported, and that is my grievance," he said.

The dispute pertains to the ED's search and seizure operations at the headquarters of TASMAC, the State's public sector liquor retailer. The agency has alleged large-scale financial irregularities involving kickbacks, manipulation in procurement, and laundering of illicit proceeds linked to TASMAC's business activities. The Tamil Nadu government, under Chief Minister M.K. Stalin, has firmly rejected these claims, accusing the BJP-led Union government of misusing Central agencies to harass political rivals and undermine the State's autonomy.

- The **Supreme Court of India** questioned whether the **Enforcement Directorate (ED)**'s probe into alleged **money laundering** linked to the **Tamil Nadu State Marketing Corporation (TASMAC)** had **encroached upon the State's authority** to investigate offences.
- The Court extended the **stay** on the ED's ongoing probe, raising constitutional concerns over **federal balance of power** between the Union and State.

2. Background of the Case

Aspect	Details
Case Involves	Tamil Nadu State Marketing Corporation (TASMAC)
Allegations	Money laundering, kickbacks, manipulation in procurement, and corruption
Petitioners	TASMAC and Tamil Nadu Government
Respondent	Enforcement Directorate (ED)
Bench	Chief Justice D.Y. Chandrachud (on leave), presided by CJI B.R. Gavai and Justice K.V. Viswanathan
Current Status	SC extends stay on ED probe; questions legality of ED's jurisdiction

The Court questioned:

- Whether the **ED** can independently probe **predicate offences** (original crimes) already being investigated by **State police or vigilance authorities**.
 - Whether such action violates the **State's constitutional authority** under **List II (State List) of the Seventh Schedule** — particularly concerning "law and order."
-

(b) Encroachment on State Authority

- The Court observed that ED's intervention, while multiple **FIRs were already registered by the State Vigilance Department**, might amount to **parallel investigation** — contrary to cooperative federalism.
 - **Kapil Sibal**, representing TASMAC, emphasized that **47 FIRs** were already filed by the **State Vigilance Department (2014–2021)**, and **37 had been closed** after due investigation.
-

Observation

“Law and order must operate within its own domain.”

“What happens to the federal structure otherwise?”

“ED cannot cross all limits.”

Implication

Reinforces limits of central investigative powers.

Reaffirms constitutional balance under Articles 245–246.

Reiterates judicial oversight on central agencies.

Law / Article

Article 246 & Seventh Schedule

Prevention of Money Laundering Act (PMLA), 2002

Section 66(2), PMLA

2022 Vijay Madanlal Choudhary v. Union of India

Explanation

Distribution of powers between Union & States — ‘Police’ is a **State subject**.

Empowers ED to probe “proceeds of crime” from predicate offences.

Allows sharing of information between agencies, but not duplication of investigation.

SC upheld ED’s wide powers but said ECIR need not be given to the accused — now under review.

Domain

Implication

Federalism

Reasserts State autonomy in criminal investigation.

Institutional Accountability

Calls for judicial oversight on ED and CBI actions.

Rule of Law

Ensures separation of powers between Union and States.

Political Neutrality

Highlights growing debate over politicization of central agencies.

Parameter	Details
Case	ED vs TASMAC liquor scam (Tamil Nadu)
Bench	CJI B.R. Gavai, Justice K.V. Viswanathan
Key Issue	ED's encroachment on State's jurisdiction
Relevant Law	PMLA, 2002
Constitutional Principle	Federal structure & division of powers
Petitioner	TASMAC & Tamil Nadu Government
Number of FIRs Filed by State	47 (2014–2021)
ED Argument	Investigating only laundering aspect
SC Concern	Violation of cooperative federalism

A green advantage in tractor exports

The government's recent decision to cut the Goods and Services Tax (GST) rate on tractors to 8% is a timely boost for farmers and manufacturers alike. Lower costs are expected to accelerate mechanisation at home, contributing to a stronger domestic manufacturing base to support exports abroad. Yet the global regulatory landscape for such exports is shifting fast, as increasingly stringent emission standards come into effect in the world's leading markets. India faces a defining choice: cling to low-cost competitiveness or pivot boldly towards cleaner, higher-value machines that can command global markets.

Regulatory limits for emissions Tractors are the backbone of Indian agriculture. They are used to plough, sow, harvest, irrigate, transport produce, and manage crop residue. Their use in arable crops and terrains has made them indispensable, reducing drudgery and ensuring timely operations. This robust domestic base has propelled India to become a leading global supplier, with tractor exports totalling \$1.15 billion and reaching 162 countries in 2024-25. But with growing volumes come growing externalities: an analysis by the International Council on Clean Transportation (ICCT) shows that emissions from tractors and other non-road equipment in India are projected to surpass those from road vehicles by 2030. Policy has already begun to shift in that trajectory. As discussed in a previous ICCT analysis, India's leap to Bharat Stage (BS) IV standards for agricultural tractors in 2023 slashed the regulatory limit for particulate emissions by up to 94%, nearly closing the gap with the norms of the United States and European Union. By April 2026, Bharat Stage (BS) IV standards will bring BS IV tractors in line with U.S. Tier 4 and EU Stage V requirements. These reforms aren't just



Anand Hari Kumar
Researcher, ICCT



Anil Bhat,
Sr. Managing Director, ICCT

Emission standards are not a burden but a passport to stronger trade

environmental milestones; they are trade strategies. Regulatory alignment means Indian manufacturers can sell the same tractors in domestic and foreign markets, avoiding compliance costs and supporting economies of scale in production. A recent ICCT working paper on India's tractor exports found that such alignment may already be paying dividends. While overall tractor exports to the U.S. fell by 40% in 2023-24 and 10% in 2024-25, exports to the large segment (75-100 kW), where Indian and U.S. norms align, surged. Meanwhile, in Europe, exports to Belgium surged after the rollout of TREM IV led to a closer alignment of regulatory frameworks: medium-range tractors (37-75 kW) exported in 2023-24 were nearly 200 times the 2022-23 levels, while large tractor exports jumped from virtually zero to 126 million in 2023-25. When Brazil introduced emission standards for tractors in 2017, the models that Indian manufacturers were selling domestically were already compliant, thanks to standards in effect in India since 2010. That head start gave Indian manufacturers an advantage. After India's BS IV standards came into effect (in 2017 and 2019), Indian tractor exports to Brazil climbed from 1.5 million in 2017-18 to 6.6 million in 2024-25 – a staggering increase – further highlighting how regulatory

alignment can help enable demand for agri-cultural machinery.

An opportunity To be clear, many factors influence global trade, and no causal link has been established between emission standards and tractor exports. Indeed, Indian tractor exports have also grown in markets without emission norms, such as Bangladesh, South Africa, and Thailand, where they are valued for reliability and affordability. Still, data from India's top seven tractor export destinations indicate that such exports increased with greater alignment of emission standards, either by enforcement of more stringent norms in India or by the importing country. Faced with rising tariffs in the U.S., Indian manufacturers have an opportunity to reposition themselves not merely as cost-competitive producers, but as higher-value, cleaner-technology suppliers. Cleaner machines often mean lower lifetime costs, better efficiency, and resilience against future regulatory changes. TREM V's implementation will only strengthen India's standing.

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Balancing empowerment with economics

The Street Shakti scheme has shown early success, but faces a sustainability test

STATE OF PLAY

P. Sudhakar Varma
Editor, Chennai Express

The Street Shakti scheme, which offers free bus travel to girls, women, and transgender people across Andhra Pradesh, has been in effect for two months. So far, it has increased ridership, enhanced mobility for women, and generated positive public sentiment. However, beneath this encouraging start lie operational and financial concerns. Questions about sustainability, the strain on transport infrastructure, and equitable access challenge the long-term viability of Street Shakti.

The scheme was launched on August 16, Independence Day, to highlight the government's resolve to advance women's independence and empowerment. Within the first 30 hours of its introduction, more than 12 lakh women passengers travelled for free by the arrival of more than 700 electric buses, which may help ease the situation. Chief Minister N. Chandrababu Naidu, who is keen on steering the State Transport Corporation (APSTC) around 10 lakh women passengers for free by October 31, by October 6, this number had increased to 28.3 lakh. The daily government subsidy paid to the State Transport Corporation grew from ₹2.76 crore to ₹40.46 crore during this period and the number of Street Shakti buses increased from 85 to 121.

This data reflects early success but also points to cost implications and the logistical adjustments needed to sustain such high usage over time. With an estimated annual cost of ₹1,042 crore and a monthly expense of ₹162 crore, the APSTC will be reimbursed by the state government for the

Andhra Pradesh

The scheme's costs through the submission of anti-fare tickets. However, the continuous allocation of such substantial funds could strain the state's finances, especially if economic conditions fluctuate.

Another challenge is overcrowding due to the shortage of vehicles in the APSTC fleet. The waiting period has become long, particularly during peak hours. With the sudden surge in the number of women travelling by RTC buses, men are on the verge of becoming a minority onboard. Officials have also reported a slight decline in the number of fare-paying passengers. While trying to manage the existing fleet, they are awaiting the arrival of more than 700 electric buses, which may help ease the situation. Chief Minister N. Chandrababu Naidu, who is keen on steering the State Transport Corporation (APSTC) around 10 lakh women passengers for free by October 31, by October 6, this number had increased to 28.3 lakh. The daily government subsidy paid to the State Transport Corporation grew from ₹2.76 crore to ₹40.46 crore during this period and the number of Street Shakti buses increased from 85 to 121.

has not been received well by auto-rickshaw and maxi cab drivers, who have been protesting across the state, citing revenue losses. They have demanded compensation for the income shortfall caused by the scheme. In response, the government announced the At Mitra programme, offering financial assistance of ₹15,000 annually to drivers. The drivers want this amount to be increased to ₹30,000 and also want some of their other demands to be fulfilled.

Meanwhile, the APSTC employees' union has been urging the RTC management to procure more buses in view of the rising occupancy rate. Warring against the continued use of outdated buses, union leaders are demanding that the authorities buy at least 2,500 new buses – both electric and diesel – and also recruit 5,000 employees to reduce dependence on outsourcing.

The workers are also worried about the government's plan to operate electric buses under the G-Drive Contract Model. Under this system, State Transport Corporation will private hire operators to run electric buses. The government owns the buses, and private operators manage operations and maintenance under a contract, earning a fixed amount per kilometre. The proposed model has sparked fears of privatisation and the erosion of the public transport corporation. The Street Shakti is a significant step towards empowering women and has already achieved promising results. However, it also faces challenges related to implementation and financial sustainability. Addressing these concerns is essential to ensuring the scheme's long-term success.

Cybercrime cases of cheating by personation surge in Karnataka

Even as these cases surge, the police charge-sheeting rate and the conviction rate remain weak

DATA POINT
Devyashil Bhatnagar

According to government data, cybercrimes such as fake jobs, online investment frauds, fraudulent social media profiles, and impersonation scams have surged in recent years. The increase is most prominent in Karnataka, which, in 2023, accounted for more than 70% of all such cases in India. Also, only about one in four such offences is charge-sheeted, and only one in five of those that reach court ends in conviction. This suggests that many perpetrators go scot-free.

These types of cybercrimes fall under Section 66D of the Information Technology Act, 2008, which states: "Whoever, by means of any communication device or computer resource, cheats by personation, shall be punished with imprisonment up to three years and a fine of up to one lakh rupees." India has seen a sharp rise in cybercrime cases – from about 53,000 in 2019 to 66,000 in 2022 and roughly 86,400 in 2023. Karnataka alone accounted for more than a quarter of all cases reported nationwide in 2023 (Map 1).

Karnataka's share of India's total cybercrime cases fell from a pre-pandemic high of over 20% in 2019 to 21% in 2020, 18% in 2021, and 19% in 2022, before rising again in 2023 (Chart 2). The sharp rise in cybercrime has been driven largely by cases under Section 66D (cheating by personation using a computer resource), especially in Karnataka. In the State, Section 66D's share of all cybercrime cases rose from 8.8% in 2019 to 70% in 2022, 81% in 2023. Nationally, its share in all cybercrime cases increased from 12% in 2019 to 21% in 2022 and 20% in 2023 (Chart 3). The cybercrime cases under 66D include instances such as the 'deepfake' video of actor Rashmi

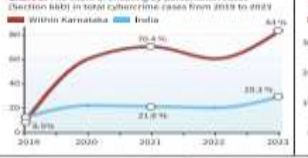
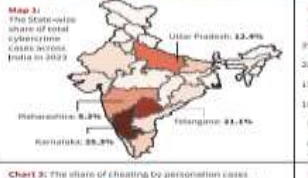
Devi Mandanna that went viral in 2023. During the same year, a person posing as an official from the Telecom Regulatory Authority of India cheated a senior officer in the State Finance Department, which again falls under this section. Another recent example is a case registered this month in Kadur against five people for allegedly circulating a forged National Health Mission job order list. However, Karnataka should not be singled out as a cybercrime hotspot simply because case numbers are rising. Higher counts may reflect better trained police and more proactive recording of crimes. Karnataka was the first State to establish a dedicated city-level cybercrime police station, under the Bengaluru City Police, eight cybercrime, economic and generic offences units were set up in March 2017.

Nationally, the worrying trend is that while cybercrime numbers are rising, both the police charge-sheeting rate and the conviction rate in courts remain dismal. In 2023, the charge-sheeting rate for Section 66D offences was just 25% in India (one in four), below the overall cybercrime average of 33.3%.

The conviction picture is troubling too for Section 66D, which was just 25% in India (one in four), below the overall cybercrime average of 33.3%. The conviction picture is troubling too for Section 66D, which was just 25% in India (one in four), below the overall cybercrime average of 33.3%. The conviction picture is troubling too for Section 66D, which was just 25% in India (one in four), below the overall cybercrime average of 33.3%.

Digital fraud on the rise

The data for the charts were sourced from the National Crime Records Bureau (2019-2023)



FROM THE ARCHIVES

The Hindu.

FIFTY YEARS AGO OCTOBER 15, 1978

Two share Nobel Prize in Economics

Stockholm, Oct. 14: Prof. Tjalling C. Koopmans of the U.S. and Prof. Leonid Kantorovich of the Soviet Union today shared the 1978 Nobel Prize in Economics for their study into the supply and demand of goods and services.

Mr. Koopmans (65) is a Professor at Yale University while Mr. Kantorovich (63) is a Professor at the Siberian Department of the Soviet Academy of Sciences.

The Royal Swedish Academy of Sciences, in giving the two men the Alfred Nobel Memorial Prize, said they had studied the problem of "how the available productive resources can be used to the greatest advantage in the production of goods and services."

It said the field embraced such questions as "what goods should be produced, what methods of production should be used, how much of current production should be consumed and how much redistributed to create new resources for future production and consumption."

The Academy said that though both worked independently of one another, both had "developed methods for the analysis of the classical problem of economics as regards the optimum allocation of scarce resources."

Prof. Kantorovich became a member of the Soviet Academy of Sciences in 1964 and holds the Order of Lenin, including the Lenin Prize. He has worked on problems of the socialist economy, price formation, theory of rent efficiency and capital investment.

A HUNDRED YEARS AGO OCTOBER 15, 1925

Madras X-ray institute

Mr. T. Subbaraya Mudali, Retired Civil Surgeon, writes from Chingleput, under October 12: The following extract from "The Lance" dated September 10, will interest the Madras public, showing as it does the high opinion held in London of the X-ray work, done in the Madras Government Medical College. "The advance which has been made in the scientific application of photography is strikingly shown at the exhibition of the Royal Photographic Society which opened its doors on Sept 14th at 25, Russell Square, London. These pictorial prints never fail to interest the artistic sense, it is in scientific work that photography finds its real usefulness and in the camera research has found a most powerful ally."

Digital fraud on the rise

The data for the charts were sourced from the National Crime Records Bureau (2019-2023)



Map 1:
The State-wise
share of total
cybercrime
cases across
India in 2023

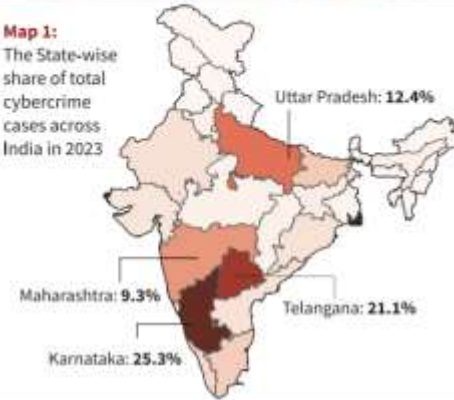


Chart 2: Karnataka's share in India's total cybercrime cases from 2019 to 2023

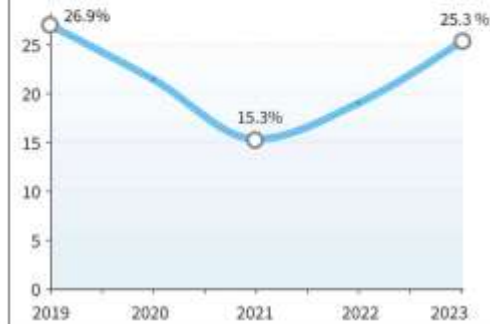


Chart 3: The share of cheating by personation cases (Section 66D) in total cybercrime cases from 2019 to 2023

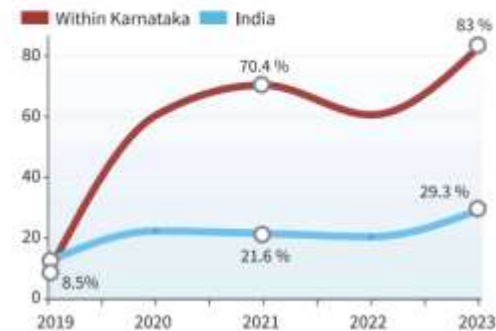
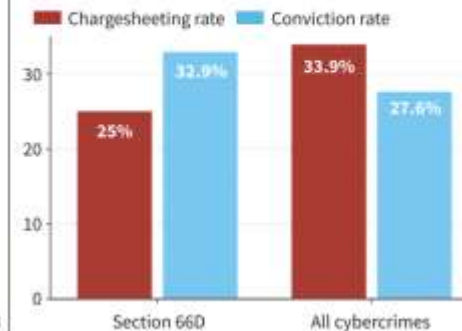


Chart 4: The charge-sheeting and conviction rates for Section 66D and all cybercrime cases in 2023



-
- India has witnessed a **sharp rise in cybercrimes** — particularly **cheating by impersonation using computer resources**, categorized under **Section 66D of the Information Technology Act, 2000**.
 - **Karnataka** accounts for the **majority of such offences**, contributing **over 70% of all cases in India (2023)**.
 - Despite the increase, **conviction and charge-sheet rates remain alarmingly low**, indicating systemic weaknesses in investigation and prosecution.



Indicator	2021	2022	2023	Observation
Total Cybercrime Cases (India)	53,000	66,000	86,400	Steady rise each year
Karnataka's Share (%)	25%+	19%	21%	Still dominant cybercrime hub
Section 66D Share (Nationally)	12%	21%	29%	Cyber cheating driving overall rise
Section 66D Share (Karnataka)	8.5%	70%	83%	Extraordinary concentration
Charge-sheet Rate (Section 66D)	—	—	25%	1 in 4 cases filed
Conviction Rate (Section 66D)	—	—	33%	1 in 3 cases reaching court
Overall Cybercrime Conviction Rate	—	—	27.6%	Still below 30%

3. Nature of Crimes (Under Section 66D)

Section 66D of the IT Act, 2000:

“Whoever, by means of any communication device or computer resource, cheats by personating, shall be punished with imprisonment up to three years and a fine up to one lakh rupees.”

Examples cited in the article:

- “*Deepfake*” video of actor **Rashmika Mandanna** (2023).
- Fraudsters posing as **TRAI officials** duping State Finance Department officers.
- Fake **National Health Mission job selection lists** circulated online.

4. Key Trends Identified

a. Massive Growth in Cybercrime Volume

- 2021 → 2023: **63% jump** in national cybercrime cases.
- Karnataka = top contributor (21%–25% of national total).

b. Dominance of Section 66D

- Section 66D offences now make up **nearly one-third of all cybercrimes in India**.
- Common methods: fake job offers, phishing, investment fraud, fake social media accounts, impersonation scams.

c. Poor Enforcement Efficiency

- **Charge-sheet rate (25%)** → 3 out of 4 offenders go unprosecuted.
 - **Conviction rate (33%)** → majority of accused escape conviction.
 - Indicates **investigation bottlenecks** and **weak digital evidence management**.
-

Problem Area	Description
Low charge-sheeting	Weak coordination between cyber police and judiciary.
Low conviction	Digital evidence handling, chain of custody, and lack of forensic expertise.
Skilled manpower deficit	Few officers/lawyers trained in cyber laws.
Cross-jurisdictional complexity	Scams often cross state/national boundaries.
Outdated procedures	Long delays between reporting, FIR, and trial.

Parameter	Details
Relevant Law	Section 66D, IT Act, 2000
Punishment	Up to 3 years imprisonment, ₹1 lakh fine
Highest Cybercrime State (2023)	Karnataka
Total Cybercrime Cases (2023)	86,400
Section 66D Share (India)	29%
Conviction Rate (2023)	33% (Section 66D), 27.6% overall
Charge-sheet Rate (2023)	25%
Key Conference Mentioned	Shield 2025, Hyderabad

Text & Context

THE HINDU

NEWS IN NUMBERS

Nationally significant cyberattacks in U.K. from Aug. 2024-2025

204 The U.K. government has reported 204 nationally significant cyberattacks in the 13 months to end of August 2025.

Number of Maoists arrested in the State of Jharkhand

266 A total of 266 Maoists have been killed, and 30 have surrendered before security forces in Jharkhand this year till September. As many as 137 firearms, 18,084 detonators, 13,950 cartridges, five 5 kg of explosives and 228 explosives devices were seized.

Investment approved for Google's AI hub in Andhra Pradesh

15 In billion. The AI hub at Vishakhapatnam will be Google's largest hub outside the U.S. and will include a 1.1 gigawatt data centre campus and an expanded fibre-optic network. The announcement was made during the Google AI Summit 2025.

The drop in the number of wild elephants in India

18 In per cent. India's wild elephant population has been estimated at 22,446, lower than the 2017 figure of 27,143, as per India's first DNA-based count. The AI India Synchronous Elephant Estimation 2023 puts decline in numbers between 18.25 and 20.64, with an average of 22.44%.

Number of police encounters in Uttar Pradesh since 2017

15,726 The Uttar Pradesh Police has intensified its operations against criminals, neutralising or arresting several suspects in nearly a dozen encounters in the last 20 days, the government said.

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How innovation drives economic growth

Who won the Nobel prize for Economic Sciences this year? What is the difference between propositional knowledge and prescriptive knowledge? What is the theory of creative destruction? How much should a country invest in research and development?

EXPLAINER

T.T.A. Sharad Raghavan

The story so far

On October 13, the Royal Swedish Academy of Sciences announced that it had decided to award the 2025 Sveriges Riksbank Prize in Economic Sciences to Joel Mokyr, Philippe Aghion and Peter Howitt "for having explained innovation-driven economic growth". One half of the prize goes to Mr. Mokyr, while the other half will be divided between Mr. Aghion and Mr. Howitt.

Who are the winners?

Joel Mokyr was born in 1946 in Leiden, the Netherlands. He is currently a professor at Northwestern University. According to the award citation, he won the prize "for having identified the prerequisites for sustained growth through technological progress". Philippe Aghion was born in 1956 in France. He is currently a professor at Collège de France and INSEAD, Paris, and The London School of Economics and Political Science, U.K. Peter Howitt was born in 1946 in Canada and is a professor at Brown University in the U.S. Mr. Aghion and Mr. Howitt jointly won the other half of the award "for the theory of sustained growth through creative destruction".

What was Joel Mokyr's work?

To understand the work of all three economists, one must first understand the fact that global growth has been unusually sustained over the last 200 years, following centuries of stagnation. The work of all three economists, in different ways, tries to answer what happened in the last two centuries that set them apart. This will also help create a model of sorts for sustained growth into the future as well.

Through his research in economic history, Mr. Mokyr showed that a continual flow of "useful knowledge" is



Joel Mokyr, Philippe Aghion and Peter Howitt are recipients of the Nobel Prize in Economic Sciences announced in Stockholm, on October 13, 2025.

necessary for sustained growth. This useful knowledge, he theorised, has two parts: propositional knowledge and prescriptive knowledge. Propositional knowledge basically has to do with looking at the natural world and figuring out why something works. Prescriptive knowledge refers to actual practical instructions, drawings or recipes that describe what is necessary for something to work — like an instruction manual.

He argued that, prior to the Industrial Revolution, the world's leading inventors had a good command of propositional knowledge. That is, they had strong theories, after observing the world, of why things work. This propositional knowledge, however, did not rest on a bedrock of prescriptive knowledge. Without the latter, it became next to impossible to build upon existing knowledge. This changed in the 16th and 17th centuries, Mr. Mokyr argued.

Scientists started including precise measurement methods and controlled experiments in their work, and began to insist that results be reproducible.

What were implications on policy?

The policy prescription of Mr. Mokyr's research was twofold. The first was that new ideas would become a reality only if practical, technical and commercial knowledge was abundantly available. Without these, he argued that even brilliant ideas such as Leonardo da Vinci's helicopter designs would remain on the drawing board, as they indeed did. He argued that sustained growth first took place in Britain because it was home to many skilled artisans and engineers who were able to transform ideas into practical and commercial products, which was vital in achieving sustained growth. The policy implication from this is that governments must invest heavily in

skilling if they want sustained growth. The other factor — and policy prescription — for sustained growth was that society should be open to change. Innovation invariably creates winners, but it also creates losers as new technologies replace existing ones. This can often lead to resistance to change from established interest groups.

What about Aghion and Howitt?

These two economists took the idea of "creative destruction" — where innovation leads to the destruction of the incumbents — and created a mathematical model to capture it. They showed, through maths, how technological advancement leads to sustained growth. The model developed by both of them can be used to analyse whether there is an optimal volume of R&D in society. There are two opposing trends here, as per the developed model. The first trend is that, when a new innovation comes in and replaces another, the benefits from the replaced technology will continue to flow to society, even if the company that developed it is no longer making profits from it. In other words, technology that has been outcompeted has more value for society than for the company that developed it. This makes it imperative that R&D be subsidised. However, the other competing trend is that when a company comes up with an innovation that rises to the top of the chain, it starts receiving bulk of the profits even though the actual improvement might have been only incremental. For society, the gain from this new technology is limited because it is only a relatively small improvement over the older technology. In such a scenario, investments into R&D might be too high. Therefore, under this trend, R&D should not be subsidised.

The answer to the question of how much R&D needs to happen will thus vary depending on the society and economy in question, but the model developed by the two economists lends a lot of insight into how to arrive at this optimal level.

THE GIST

Joel Mokyr won the prize "for having identified the prerequisites for sustained growth through technological progress".

Mr. Aghion and Mr. Howitt jointly won the other half of the award "for the theory of sustained growth through creative destruction".

Through his research in economic history, Mr. Mokyr showed that a continual flow of "useful knowledge" is necessary for sustained growth. Mr. Aghion and Mr. Howitt took the idea of "creative destruction" — where innovation leads to the destruction of the incumbents — and created a mathematical model to capture it.

How does Gaganyaan's vital crew escape system work?

Why is a Crew Escape System necessary for human space missions? How has the ISRO tested its CES?

Unnikrishnan Naik S.

The story so far

The Gaganyaan mission aims to safely transport Indian astronauts to a low-earth orbit of around 400 km altitude using the human-rated LVLM (Human-Launch Vehicle Module) rocket as the launch vehicle, and to return them safely. In human space missions, crew safety is more important than mission success. It is imperative that safety is addressed during all phases: launch pad, ascent, orbit, and descent.

What is the CES?

A dedicated Crew Escape System (CES) will be used during the initial part of the atmospheric phase of the Gaganyaan mission to ensure crew safety in the event of a contingency that jeopardises the mission. The CES is designed to rapidly separate the crew module, along with the crew, from a malfunctioning launch

vehicle, and move it to a safe distance in the least possible time. The atmospheric phase of flight is one of the most critical stages of the ascent, during which the rocket accelerates to hypersonic speeds — more than five times the speed of sound — and will be experiencing very high structural loads. The HLV/M1 rocket is equipped with four solid-fuel boosters to lift off, and unlike liquid or cryogenic engines, solid motors cannot be shut down once they are ignited. Thus, the CES must extract the crew module with greater acceleration than the launch vehicle itself, and in minimal time. In the Gaganyaan mission, the CES could impart accelerations up to 10-times that of gravity. For a healthy human body, such high acceleration is tolerable for a few seconds if the crew is positioned correctly, with the acceleration being perpendicular to the chest and the body pressed against the seat in a "child in cradle" orientation. Rocket systems are

more intricate than those of aircraft, with rocket reliability much lower than that of passenger aircraft. Nevertheless, the CES can significantly improve crew survival probability through its heritage-based design, redundant systems, and robust mission planning.

What are different types?

The CES is classified into two types based on the way it extracts the crew module: (i) puller type — used in Gaganyaan, where the CES pulls the crew module away from the launch vehicle; (ii) pusher type — used in vehicles like Space Shuttle, where the crew module is pushed away using compact, high-thrust liquid-fuel engines. Both systems have advantages and disadvantages, with the choice depending on propulsion technology and system integration aspects. Once the CES has moved the crew module to a safe distance away from the failing vehicle, the module will be released and decelerated by a

multistage parachute system. This will reduce the module's velocity in steps, ensuring it splashes down safely in the sea without exceeding the crew's physiological limits upon impact.

Typically, the crew will remain inside the module until splashdown. But during the Soviet Union's first human spaceflight, Yuri Gagarin ejected from the Vostok module at approximately 7 km altitude and parachuted safely to the ground.

The Integrated Vehicle Health Management system, which is a network of sensors, electronics, and software, will aid in taking a decision to activate the CES when a contingency arises. It will monitor all vital parameters of vehicle systems and crew health in real time.

Has it been tested?

The ISRO has developed a cost-effective, single-stage Test vehicle powered by the Vikas engine to validate the CES. The first successful test occurred in October 2023, during which the CES was activated when the Test vehicle reached a critical phase in atmospheric flight when the velocity conditions became intolerable to passengers. ISRO plans additional Test vehicle flights to simulate other critical ascent trajectory conditions. The CES is a cornerstone of the Gaganyaan programme and reflects ISRO's commitment to astronaut safety.

Unnikrishnan Naik S. is former director, VSSC, Propulsion Division, ISRO.

THE GIST

A dedicated Crew Escape System (CES) will be used during the initial part of the atmospheric phase of the Gaganyaan mission to ensure crew safety in the event of a contingency that jeopardises the mission.

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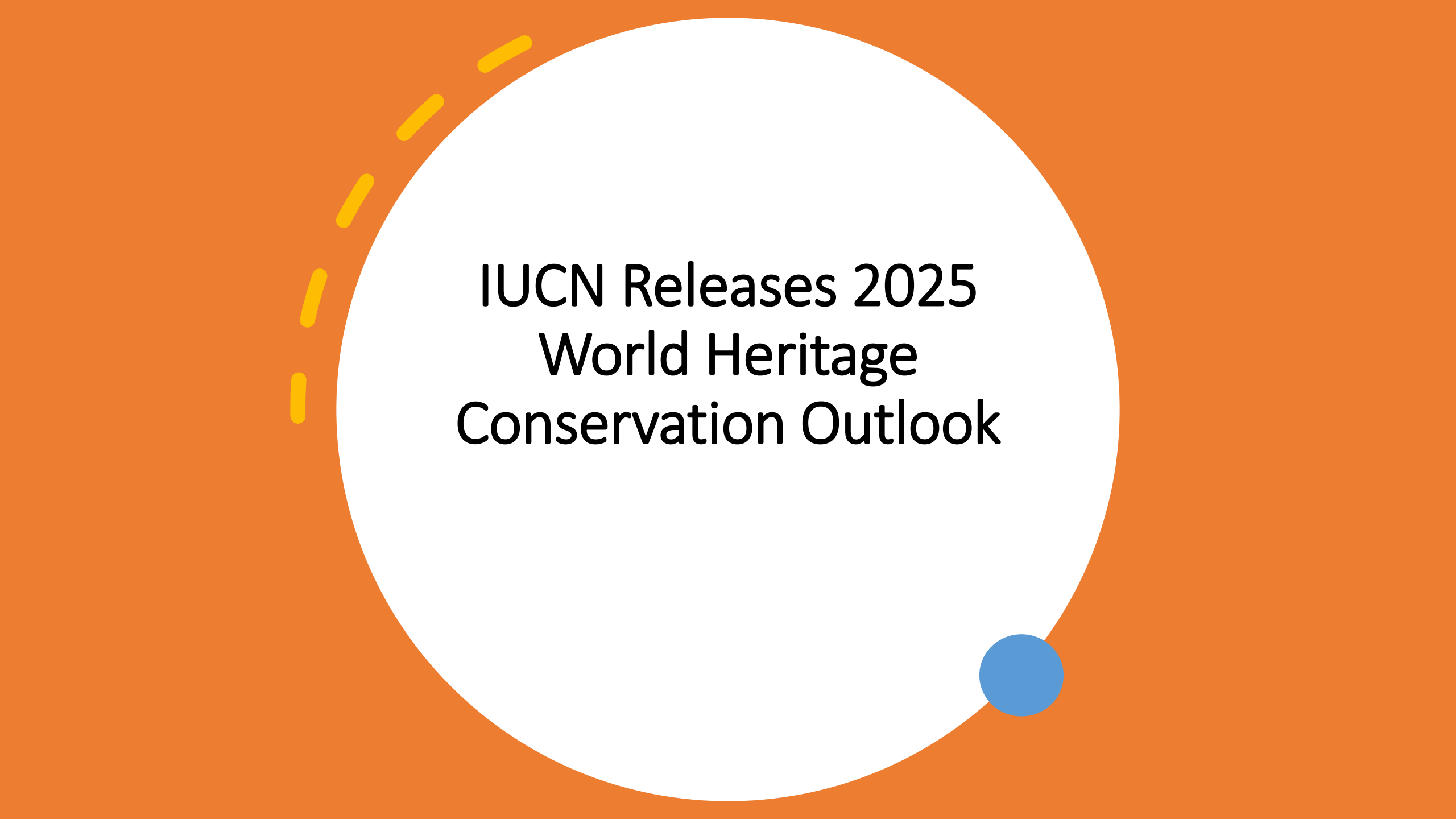
Investment approved for Google's AI hub in Andhra Pradesh

15 In billion. The AI hub at Visakhapatnam will be Google's largest hub outside the U.S. and will include a 1-gigawatt data centre campus and an expanded fibre-optic network. The announcement was made during Bharat AI Shakti, a precursor event to the India-AI Impact Summit 2026. PTI

Parameter	Details
Investment Value	USD 15 billion ≈ ₹1.25 lakh crore
Location	Visakhapatnam (Port City, Andhra Pradesh)
Project Nature	“Gigawatt-scale” AI compute capacity data centre
Partners	Google + Bharti Airtel + AdaniConneX
Timeline	5 years (MoU signed 2025)
Purpose	AI research and cloud services hub for Asia
Connectivity	New undersea data cables + terrestrial networks
Employment Impact	High-skill jobs in AI and data engineering
Government Participation	Andhra Pradesh CM N. Chandrababu Naidu, Union Ministers Nirmala Sitharaman & Ashwini Vaishnaw present at MoU signing

Dimension	Impact / Importance
Digital Infrastructure	Enhances India's AI-compute capacity & global data networking.
Economic Impact	\$15 bn FDI boost + skilled employment in data engineering & AI fields.
Strategic Connectivity	Makes India a data-transit bridge between Asia, Africa, Middle East.
Policy Synergy	Supports Digital India & IndiaAI Mission 2024 for compute infrastructure.
Regional Growth	Elevates Visakhapatnam as a global tech hub & Blue Economy node.

Parameter	Details
Project Name	Google AI Data Centre (Vizag)
Investment Value	\$15 billion
Timeframe	5 years (2025 – 2030)
Partners	Google, Bharti Airtel, AdaniConneX
Largest Outside U.S.	Yes
Focus Area	AI Compute Capacity & Data Connectivity
Govt Representatives at MoU	N. Chandrababu Naidu, Nirmala Sitharaman, Ashwini Vaishnaw
Connectivity Expansion	Subsea Cables & Terrestrial Fiber Network

The slide features a solid orange background. A large white circle is centered on the page. Inside this circle, the title text is displayed in a black, sans-serif font. To the left of the white circle, there is a decorative arc composed of several short, thick yellow dashes. At the bottom right edge of the white circle, there is a small, solid blue circle.

IUCN Releases 2025 World Heritage Conservation Outlook

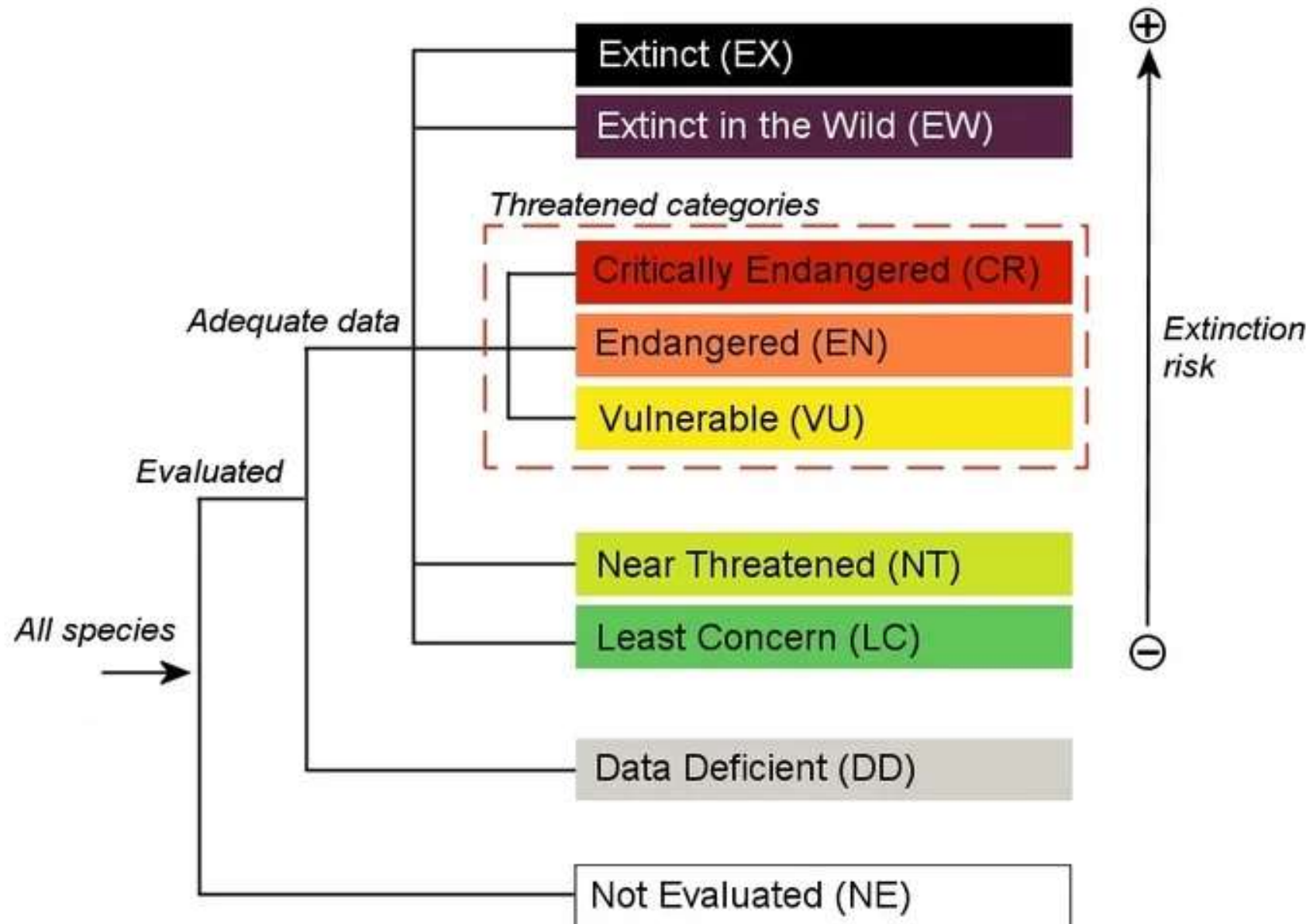
The 2025 IUCN World Heritage Outlook offers a comprehensive global review of natural World Heritage sites.

It assesses the conservation status of all such sites simultaneously.

This unique approach provides a clear picture of current conditions and future prospects.

The Outlook supports conservation efforts by denoting good practices and identifying threats early.

It strengthens the role of natural World Heritage sites in preserving biodiversity and ecosystems amid global challenges.





WTI Marks 25 Years of
Van Rakshak Project,
Honours India's Forest
Protectors

- India's forest protectors, known as Van Rakshaks, play a vital role in conserving the country's biodiversity. A recent report by the Wildlife Trust of India (WTI) commemorates 25 years of support to these frontline staff.

- It marks their courage, sacrifices, and the challenges they face while safeguarding India's forests and wildlife.

- **Report Highlights**

- The WTI released a report titled Guardians of the Wild – Supporting India's Frontline Forest Staff in Abu Dhabi. It features stories of 540 rangers killed or injured in duty. The report was launched by Kirtivardhan Singh, Union Minister of State for Environment, Forest, and Climate Change. It emphasises the critical role of Van Rakshaks in protecting over 1,100 protected areas and numerous forests.



BHARAT TAXI

-
- India is set to launch Bharat Taxi, a first-of-its-kind, cooperative-based, citizen-first national ride-hailing platform.
 - It aligns with the Digital India vision of inclusive, tech-enabled, and transparent public services.

- Bharat Taxi

- **Collaboration:** The initiative is a collaboration between the **National e-Governance Division (NeGD)**, **Digital India Corporation**, Ministry of Electronics & Information Technology (MeitY), and **Sahakar Taxi Cooperative Limited**.
- **Aim:** The partnership aims to create a **secure, interoperable, and citizen-centric mobility platform** for India.

-

- **Features:**

- Bharat Taxi will be integrated with **DigiLocker, UMANG, and API Setu** to ensure seamless **identity verification** and service delivery.
- The platform will adhere to **Government of India data protection norms** and follow robust **cybersecurity standards**.
- The platform will offer **multilingual interfaces** and **inclusive access features** to ensure usability for all citizens.

-

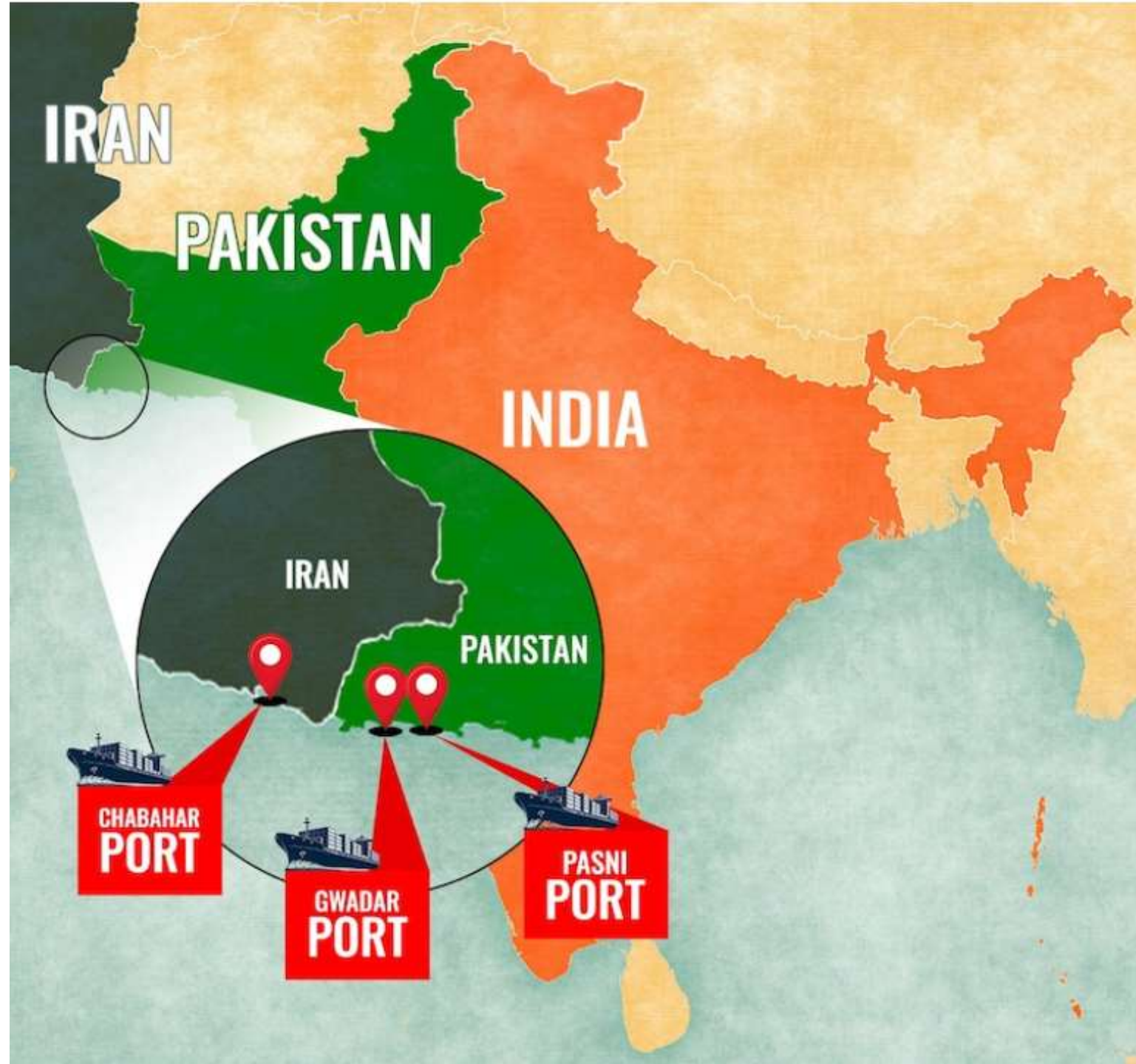


Pasni Port

- Pakistan has recently offered the United States the opportunity to develop and operate Port Pasni as a commercial terminal, enabling US access to Pakistan's critical minerals.

- **About Port Pasni**

- **Location:** Pasni Port is situated in the Gwadar district of Balochistan, alongside the Arabian Sea. It is approximately 113 km east of the China-operated Gwadar Port and roughly about 286 km from Iran's Chabahar Port.
- **Facilities:** The port currently hosts a fish harbour, cargo jetty, and base for the Pakistan Maritime Security Agency (PMSA).
- **Natural Depth:** Its deep-water harbour makes it suitable for major shipping and mineral export operations.





Delhi Declaration on 6G

-
- Recently, the leading global 6G research alliance including Bharat 6G, 6G-IA, ATIS' Next G Alliance issued a Joint Declaration to develop 6G as a global public good at the International Bharat6G Symposium 2025 in New Delhi.
 - **Delhi Declaration on 6G Alliance**
 - The declaration endorsed key principles to ensure that 6G networks are trusted, secure, resilient, open, inclusive, affordable, and sustainable.
 - It emphasized trustworthy-by-design systems, AI-native safeguards, privacy-preserving architectures, and multi-vendor interoperability.
 - Sustainability was central, calling for energy-efficient, repairable, and recyclable infrastructure.



Mission Drishti – The World's First Multi-Sensor Earth Observation (EO) Satellite

- 
- Indian space-tech startup GalaxEye has announced the launch of 'Mission Drishti,' the world's first multi-sensor Earth Observation (EO) satellite, scheduled for the first quarter of 2026.
- 

- What it is?

- Mission Drishti is the world's first satellite integrating multiple sensing technologies—[Synthetic Aperture Radar](#) (SAR) and Optical sensors—on a single platform, enabling real-time, all-weather Earth observation.

- Organisation Involved: Developed by GalaxEye Space, a Bengaluru-based private space startup founded by alumni of IIT Madras.

- Aim: To provide high-resolution, multi-source geospatial intelligence for applications in defense, disaster management, infrastructure, utilities, agriculture, and financial risk assessment, strengthening India's [data-driven governance](#) and security capabilities.

- Key Features:

- World's first multi-sensor integration: Combines SAR and [optical imaging](#), ensuring 24×7, all-weather monitoring.
- High-resolution imaging: Offers 1.5-meter resolution, among the highest in its category.
- Largest private satellite: Weighs 160 kg, India's largest privately-built satellite to date.
- [AI-driven analytics](#): Enables advanced data fusion and geospatial insights for precision planning.
- Constellation plan: 8–10 satellites to be launched over four years, forming an integrated global observation network.



Fare Se Fursat Fixed Airfare Scheme

- 
- Union Civil Aviation Minister launched Alliance Air's "Fare Se Fursat" Fixed Airfare Scheme, giving passengers freedom from fluctuating airfares and promoting affordable, predictable air travel under the UDAN vision.
- 

What it is?

- A first-of-its-kind initiative by **Alliance Air** that introduces a **single, fixed airfare** which remains constant irrespective of booking dates, including last-minute travel.

Airline Involved: Implemented by **Alliance Air**, a government-owned regional carrier.

Aim: To democratize aviation by making air travel affordable, transparent, and stress-free for middle-class and first-time flyers.

Word of the day

Prognostication:

a sign of something about to happen; a statement made about the future; knowledge of the future (usually said to be obtained from a divine source)

Synonyms: omen, forecasting, foretelling, prediction, prophecy

Usage: *The goal of his prognostication was not to frighten but to warn.*

Pronunciation: newsth.live/
prognosticationpro

International Phonetic Alphabet: /prɒgnɒstɪkeɪʃən/





Thank you 😊

