

### **DAILY CURRENT AFFAIRS**

# 5th August 2025



#### The Hindu Analysis 5th August 2025

#### **Topics Covered**

- A crisis of trust
- The missing link in India's battery waste management
- Why a progressive Indian policy on Myanmar is more than plausible
- IAF's unending fighter conundrum

#### A crisis of trust

#### Syllabus:

GS Paper 2 - Polity & Governance Themes: Electoral reforms, Role of Election Commission of India, Free and fair elections, Institutional credibility

#### A crisis of trust

The ECI must be more transparent and impartial in its actions

he credibility of an electoral system, or democracy in general, is dependent sole-ly on it being seen as fair by all, particularly so by the loser. This is comparable to a jud-icial dispute or a sporting event on this count. If the losers think they lost only because the process was rigged against them, a crisis of trust develops. The serious charges being raised against the Election Commission of India (ECI) by the Leader of the Opposition in the Lok Sabha, Rahul Gandhi, has to be seen in this context. He says that he has plans to disclose more information re garding discrepancies in the 2024 general elec-tion. One must wait for the details of those allegations before making any comments on their merits. The ECI has come under attack by politicians earlier too. Narendra Modi, when he was cians earner too. Narendra Mool, when he was the Chief Minister of Gujarat, had repeatedly questioned the impartiality of the ECI. Many of these charges against the ECI are rhetorical at-tempts by political parties or leaders to animate supporters. In Bihar, the Leader of Opposition in the State Assembly, Tejashwi Yadav, has alleged his name did not exist on the draft electoral roll which is being revised by the ECI. As it turns out the Elector's Photo Identity Card (EPIC) number that he thought was his is different from the one in the ECI records, raising a new controversy. Politicians should be raising questions about the electoral process only when there are strong grounds for doing so. Trust in the electoral system is foundational to representative democracy.

That said, the ECI's recent statements and ac tions, far from buttressing public trust and en-hancing transparency in the process, raise more questions. Its efficiency and its neutrality are on test in the preparation of rolls, scheduling of elec-tions, enforcement of the code of conduct, counting process, and the redress of complaints. The ECI stands charged on each of these counts. Other than protesting that the electronic voting machines (EVM) are beyond tampering, and that political parties should raise objections regarding rolls at the appropriate time, the ECI has refused to come clean on multiple issues. It has not been transparent about the Voter Verifiable Paper Audit Trail (VVPAT) machine which is one of the three parts that make an Electronic Voting Ma-chine. Unlike the other two parts – the Ballot Unit and the Control Unit - the VVPAT has software that is centrally installed and it is connected to the control unit. The random tallving of the VVPAT with the electronically cast votes is now an extremely arbitrary process. All political parties do not have the equal capacity to monitor the various stages of the electoral process. At any rate, the election process is not a matter of nego tiation between parties and the ECI. Political par-ties have a role to play, but the real question is to ensure that the citizenry at large is reassured of the integrity of the electoral process. The ECI needs to correct its course to ensure that.











#### **Key Takeaways from the Article**

#### **Foundational Role of Trust in Democracy:**

- Trust in the electoral process is as crucial as trust in judiciary or sports refereeing.
- The credibility of elections is judged especially by the losing side if they feel the process was unfair, the very legitimacy of democracy comes under question.

#### **Allegations Against the ECI:**

- Leader of Opposition Rahul Gandhi has alleged irregularities in the **2024 Lok Sabha elections**, hinting at more revelations to come.
- Similar doubts were raised earlier by leaders like Narendra Modi (as Gujarat CM) and Tejashwi Yadav in Bihar.
- These incidents show that **distrust in the ECI isn't new** or partisan—it cuts across political lines. ECI's Performance Under Scrutiny:

#### Questions raised over the ECI's functioning in:

- Voter roll preparation
  - Poll scheduling
  - Model code of conduct enforcement
  - Vote counting transparency
  - Grievance redressal mechanisms

#### **VVPAT Controversy:**

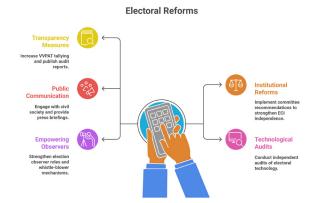
- The **Voter Verifiable Paper Audit Trail (VVPAT)**, unlike other parts of EVMs, contains software and is connected to the Control Unit.
- The current **VVPAT tallying process is seen as arbitrary** and lacks adequate transparency.

#### **Lack of Institutional Openness:**

- ECI has not adequately addressed public and political concerns.
- Simply insisting that **EVMs are tamper-proof** or advising parties to raise concerns "at the right time" does **not inspire public confidence.**

#### **Public Over Political Assurance:**

- The integrity of the election process is **not a negotiation** between political parties and the ECI.
- The ultimate stakeholder is the citizen, and trust must be built in public perception, not just party consensus.





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#### The missing link in India's battery waste management

#### Syllabus:

#### GS Paper 3 – Environment, Energy, and Economy

Themes: Waste management, Circular economy, Battery recycling, Extended Producer Responsibility (EPR), EV policy, Sustainable development

## The missing link in India's battery waste management

ndia, with its focus on decarbonisation, has witnessed rapid electrification, particularly in the realm of electric vehicle (EV) adoption. There are projections that India's EV lithium battery demand may skyrocket to nearly 139 gigawatt-hours (GWh) by 2035 from 4 GWh in 2023. India's expanding renewable energy sector is also catalysing demand for lithium batteries, with rapid adoption of battery energy storage systems (BESS) to meet India's Net Zero goal by 2070. While the growth in EV adoption is desirable, it may impose environmental costs without a robust recycling framework in place. Improper disposal of lithium batteries has severe repercussions, including leakage of hazardous materials into soil and water. Added to this is the growing volume of battery waste, with lithium batteries alone accounting for 7,00,000 of the 1.6 million metric tonnes of e-waste generated in 2022. Recognising these risks, the government notified the Battery Waste Management Rules (BWMR) in 2022 to ensure sustainable management and recycling.

#### The first problem is the floor price

A cornerstone of the rules is the Extended Producer Responsibility (EPR), which compels producers to fund battery collection and recycling, and aims to close the loop in the battery value chain. Producers rely on recyclers to meet their recycling targets since they do not possess the logistics and the infrastructure for the collection of battery waste. In practice, recyclers must receive a minimum price, known as the EPR floor price, in exchange for EPR certificates that attest that producers have met their recycling obligations. The EPR floor price ensures that recyclers are adequately compensated for their upfront investment in infrastructure, research and development, labour, technology and recycling methods.

Unfortunately, there are certain hurdles, the first being the EPR floor price being too low to sustain the robust recycling of battery waste generated by producers. Proper disposal of



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lithium battery waste is expensive, requiring advanced processing technologies, safe transportation, and skilled labour to prevent hazardous materials from leaching into ecosystems.

Lithium-ion batteries also have valuable and rare minerals such as cobalt, lithium and nickel. whose efficient recovery can significantly reduce India's import dependence. In case, the EPR floor price does not adequately cover proper recycling costs, it becomes economically unviable for legitimate recyclers to operate sustainably. As a result, informal and fraudulent recyclers tend to flourish, creating market distortions and perverse incentives for producers. They often issue false recycling certificates or dump hazardous waste a failure previously witnessed in India's plastic waste management sector. If left unchecked, such practices may undermine India's circular economy ambitions. Without fair EPR floor pricing, India faces severe environmental degradation from improper battery recycling or dumping. The financial repercussions are equally alarming. Experts estimate that by 2030, inadequate battery recycling could cost India over \$1 billion in foreign exchange losses.

#### A resistance to compliance

Large consumer electronics and manufacturers have further complicated the issue by resisting compliance. Large producers' policies are different for developed and developing countries, allowing corporations to circumvent environmental responsibilities in developing markets. This trend risks undermining the establishment of resilient and sustainable battery ecosystems across the global south.

Interestingly, adjusting the EPR floor price should not increase costs for consumers. While global metal prices have declined over the past two years, manufacturers have not passed on these savings to consumers, indicating that Original Equipment Manufacturers can absorb higher recycling costs without raising prices. A fair EPR floor price will ensure sustainable

recycling without burdening end users, while fostering a circular economy that benefits industry and consumers.

To protect legitimate recyclers and encourage compliance, India must consider adopting a fair and globally comparable EPR floor price that reflects the real costs of recycling and industry building, and which can ease to market-driven prices when the ecosystem is mature and standardisation is in place. This requires immediate constructive dialogue among policymakers, industry and recyclers to establish a viable pricing structure after analysing global pricing structures and best practices. For instance, the United Kingdom requires producers to pay close to ₹600 per kilogram for EV battery recycling, whereas what is under consideration for India is less than a fourth of that. This is a significant difference even after adjusting for purchasing power between India and the U.K. The EPR floor price for recycling battery waste should cover the full spectrum of recycling expenses, from collection to material recovery, ensuring that recyclers can operate sustainably without resorting to shortcuts. A fair EPR regime will also incentivise battery producers to hold recyclers accountable through audits.

#### **Integrate informal recyclers**

Enforcement mechanisms need urgent strengthening in India. This includes implementing robust audit systems, digitising the issuance and the tracking of EPR certificates, and imposing stringent penalties for fraud and non-compliance. Additionally, integrating informal recyclers into the formal sector through training and regulatory support can help eliminate hazardous practices while expanding India's recycling capacity. This is not just an environmental challenge. It is an economic and strategic imperative. By recalibrating the EPR floor price, strengthening enforcement, and formalising the informal sector, we can transform battery waste from a looming crisis into a catalyst for green growth and a truly circular economy.

As the first step. it is essential that India ensures the adoption of fair Extended Producer Responsibility floor pricing



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#### **Key Takeaways from the Article**

#### Rising Battery Waste Challenge in India:

- India's EV and renewable energy push is driving up lithium battery demand projected to rise from 4 GWh (2023) to 139 GWh by 2035.
- Lithium batteries alone accounted for 7 lakh tonnes out of 1.6 million tonnes of total e-waste in 2022.

#### **Environmental & Strategic Risks:**

- Improper disposal leads to soil and water contamination through toxic metal leaching.
- Missed opportunity to recover **critical minerals** (cobalt, lithium, nickel), increasing importdependency.

#### **Battery Waste Management Rules, 2022:**

- Introduced Extended Producer Responsibility (EPR) producers must ensure batteries are collected and recycled.
- EPR Certificates issued to recyclers and bought by producers to prove compliance.

#### **EPR Floor Price – The Missing Link:**

- Current EPR floor price is too low to incentivise genuine recyclers.
- Legitimate recycling is expensive: tech-intensive, labourdependent, and logistically demanding.
- Low pricing encourages **fraudulent recyclers** and **false certificate issuance**, undermining the intent of EPR.

#### **Global Comparison and Loss Estimates:**

- UK: Producers pay ~₹600/kg for EV battery recycling.
- India: Proposed price is **less than one-fourth** unsustainable even after adjusting for purchasing power parity.
- Experts warn over \$1 billion in forex loss by 2030 due to inefficient recycling.

#### **Corporate Resistance:**

- Some large producers adopt **double standards** compliance in developed nations, evasion in developing ones.
- They can absorb higher recycling costs due to global metal price declines without passing costs to consumers.

#### **Informal Sector & Compliance Weaknesses:**

- Informal recyclers operate unsafely and evade regulation.
- Weak monitoring, auditing, and lack of digital tracking of EPR certificates allow fraudulent practices.





### Way Forward



#### Why a progressive Indian policy on Myanmar is more than plausible

#### Syllabus:

GS Paper 2 – International Relations Themes: India-Myanmar relations, Refugee policy, Foreign policy reforms, Human rights, Regional geopolitics, Indo-China competition in South Asia

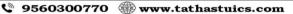


#### Why a progressive Indian policy on Myanmar is more than plausible













#### **Key Takeaways from the Article**

#### **Current Context of Myanmar Crisis:**

- Since the 2021 military coup, Myanmar has seen:
  - Over 5,000 civilian deaths,
  - 2.5 million displaced persons,
  - An ongoing multi-sided civil war, despite junta's call for elections in Dec 2024.
- India has continued formal ties with the military junta, while neglecting engagement with the pro-democracy resistance

#### **India's Current Approach – A Narrow Strategic Lens:**

- India prioritises:
  - Border security
  - Counter-insurgency cooperation
  - China-balancing
- These narrow "strategic interests" ignore human rights and democratic values.

#### The Argument for a Values-Based Foreign Policy:

- The article asserts there is **no rigid dichotomy between values and interests** a progressive policy grounded in **democracy and human security** can strengthen India's national interest.
- India must redefine its "interest" to include regional credibility, humanitarian leadership, and influence among pro-democracy actors in Myanmar

#### Geopolitical Significance for India

- A progressive Myanmar policy can:
  - Increase India's influence in Southeast Asia
  - Improve India's Act East Policy credibility
  - Diminish China's leverage in India's strategic backyard
  - Support **regional stability**, especially in India's North-East





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#### IAF's unending fighter conundrum

#### Syllabus:

#### **GS Paper 3: Defence Technology**

### IAF's unending fighter conundrum

Why have the MiG-21 fighter jets been called 'flying coffins'? Why has the induction of Mk-IA jets been delayed? How many jets does the Indian Air Force intend to induct in the next two decades? Are the engines for India's fifth generation fighter aircraft going to be indigenously developed?

EXPLAINER

Dinakar Peri

The story so far:

Iter over six decades in service, the MiG-21 fighter jets are set to be retired from the Indian Air perce (IAF) in September this year. The formal ceremony is scheduled to be held at Chandigarh where the jets were first inducted in 1963. With this the fighter strength of the IAF will dip from 31 to 29 squadrons, against the sanctioned strength of 42 squadrons. A fighter squadron typically has 16-8 jets. The IAF is awaiting deliveries of the Light Combat Aircraft (ICA-MKLA, which is expected to begin in the next few months after repeated delays. All this at a time when the Chimese Air Force and Navy have fielded around 1,900 fighters including more than 1,300 fourth-generation more than 1,300 fourth-generation aircraft, not including trainers, as per a 2024 U.S. Department of Defence report. China has also deployed two Fifth Generation Fighter Aircraft (FGFA), recently unveiled two more advanced jets, and is likely to supply 40 J-35s stealth jets to Pakistan.

What has been the legacy of MiG-21s? Contracted from the erstwhile Soviet Union after the 1962 war with China, the MiG-21s heralded the onset of supersonic aviation in the IAF and was also its first non-western fighter. A total of 872 MiG-21 aircraft have been inducted in the IAF, a bulk of them licence-manufactured by the state-owned Hindustan Aeronautics Limited (HAL). The MiG-21s remained the mainstay of the IAF for several decades and a spate of accidents in the early 2000s earned them the name 'flying coffins'. Over the six decades, there were over 450 accidents involving the jet

The jets played a key role in the 1965, 1971 wars, the 1999 Kargil conflict, and 1971 wars, the 1999 Kargil conflict, and more recently in the aerial dual with Pakistan on February 27, 2019, a day after the Balakot air strike. During the attack, Group Captain (then Wg Cdr) Abhinandan Varthaman's MiG-21 was shot down and fell in Pakistan Occupied Kashmir after he shot down a Pakistani F-16, according to the IAF.

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the IAF.

In fact, in the absence of an Advanced Jet Trainer (AJT), before the Hawks were inducted in 2008, the Mic-21s were used for stage III training of young pilots for a long time as it was the "most suitable" fighter even though it was considered "sub-optimal" as a trainer.

The MiG-21 is also among the most successful fighter jets globally with over 6,000 jets of 12 types flown by over three dozen countries. Currently, there are two MiG-21 Bison squadrons in service — the No. 23 'Panthers' and the No. 3 'Cobras'. Incidentally, the No. 3 Squadron has the distinction of being the first to get the upgraded MiG-2B sisons still in service and will now be the first to get the LCA-Mid-A. With the MiG-2Is out, the MiG-2B sion the last of the MiG series in service which together with the SU-30MKI remain the last of Russian-origin fighters.

What is the current status of the IAF? Besides the MiG-21s, a majority of the current inventory, that is the early variants of the Jaguars, Mirage-2000s and Mig-29s, will start going out by the end of the decade. This leaves the SU-30MKI in service, the LCA variants planned to be inducted and the Medium Pade Eighter inducted, and the Medium Role Fighter Aircraft (MRFA) while the indigenous FGFA, the Advanced Medium Combat Aircraft (AMCA) is under development

The IAF currently operates two



Long legacy: Technicians preparing a MiG-21 fighter for a test flight at the Base Repair Depot at Ozhar, Maharashtra on July 24, 1982. HINDU PHOTO ARCHIVES

squadrons of the LCA-Mk1, which undertook maiden flight in January 2001 and was inducted in 2016. A more capable variant, the Mk-1A, which is to be inducted in large numbers, had been delayed initially due to development issues and later due to non-delivery of engines by General Electric (GE) Aerospace citing supply chain difficulties.

How did it get delayed?

The Defence Ministry had signed a ₹48,000 crore contract with HAL for 83 MKIA jets, and deliveries were to start in March 2024 with at least 16 planes to be delivered to the IAF every year. However, not a single Tejas Mark-IA has been delivered so far. In August 2021, the HAL placed an order for 99 F-404 engines with GE Aerospace at a cost of \$5,375 crore for the 83 MkIA jets. The first engine arrived in India only in April this year after a delay of one and half years and the second engine was delivered early this month. Additionally, a deal for 97 additional jets, estimated to ₹67,000

India's fighter jet strength

6	LCA-MK2	(83+97
		120<
3	MRFA	114
_	AMCA	120<
2	IAF LCA Teja:	during
2	the Aero India 2023	
31		
	2	AMCA  AMCA  IAF LCA Tejas the Aero Ind air show at Y

crore, is expected to be concluded in the next few months. HAL has assured to

next few months. HAL has assured to scale up production to 24 jets a year. Amid these delays, an Empowered Committee for Capability Enhancement of the IAF headed by the Defence Secretary R. K. Singh identified key thrust areas and made recommendations for medium- and long-term measures in the report submitted to Defence Minister Painath Singh in March.

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As per the IAF, the LCA Mk2, larger and more capable than the MkI variants, is meant to replace the Mirage 2000, MiG-29 and Jaguars. It is expected to take first flight in 2026. In February 2025, IAF Chief Air Chief Marshal A. P. Singh said that they need to add 35-40 jets every year to make up for the shortage in numbers. Both these programmes, LCA-MkIA and Mk2, are extremely critical to shore up fighter numbers of the IAF over the next 10-15 years. In an interview to PT in June, HAI. Chairman and Managing Director D. K. Sumli said that GE Aerospace is expected to supply 12 engines in the current fiscal and that the jets would be delivered to the IAF.

Moreover, India has procured 272 Su-30MKIs from Russia of which around 260 remain in service. Last December, the Ministry of Defence signed a R13,500 crore deal with IAI for 12 Sukhois to replace those lost in crashes. A major upgrade programme for the Sukhoi's has been lined up to be undertaken by HAL. The upgrade of 84 jets in the first batch has already been approved. Meanwhile, by early 2040s, some of the earlier batch of SU-30MKIs will go out.

What is the way forward?

What is the way forward?

The IAF has drawn up an ambitious plan to induct more than 600 jets over the next two decades, a large number of them being LCA variants. This includes 180 LCA-Mk1A, over 120 LCA-Mk2, 114 MRFA and at least 120 AMCA. A Twin-Engine Deck Based Fighter for the Navy's aircraft carriers is also on the drawing board. However, all this hinges on timely

production and deliveries. Mr. Singh said in an interview recently that they are talking to partners for the likely import of a small number of fifth

THE GIST

Contracted from the erstwhile Soviet Union after the 1962 war with China, the MiG-21s heralded the onset of supersonic aviation in the IAF and was also its first non-western fighter.

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deliveries were to start in March 2024 with at least 16 planes to be delivered to the IAF every year. However, not a single Tejas Mark-1A has been delivered so far.

Mr. Singh said in an interview recently that they are talking to partners for the likely import of a small number of fifth gen fighters as an interrim measure while the AMCA development continues. The option is between the Russian SU-57 and American F-35. These are sensitive negotiations, Mr. Singh said adding, "When it reaches a tangible stage, whether it is an Acceptance of Necessity (AoN), a Request For Proposal or ultimately through a contract that is when the media will come to know."

Ultimately, it is the fifth gen AMCA that is the way forward while the LCA variants and MRFA fill numbers and add strength in the medium term. The Aeronautical Development Agency (ADA) that is developing the aircraft has floated an AoN inviting private sector participation for the production. Even HAL has to bid for it, unlike the nomination in the past. "I imagine it will take 3-6 months to reach the contract award stage", Mr. Singh said. "Thereafter the project itself of development and an AMCA prototype to actually take to the skies, it would be a 10-year program, I would imagine."

On the engine front, the F414 engine to power the LCA-ML2 is to be licence manufactured by HAL for which commercial negotiations with GS are underway. The AMCA development is envisaged in two phases—MKI development and couple of squadrons with the GF414 engine, and AMCA-MK2 with a more powerful 110KN engine that is to be co-developed with a foreign partner for which thas are underway. All this leaves the MFKA deal, for which Request For Information was issued to global aircraft manufacturers in April 2019, but there has been no progress.

global aircraft manufacturers in April 2019, but there has been no progres since. Given the huge cost involved, the long timelines and various other programmes already in the pipeline, it has to be seen how it can be taken

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#### Try to solve it.

- Q. Which of the following regions recently witnessed large-scale internal displacement due to ongoing civil conflict in Myanmar and also shares a border with India?
- A. Kachin State
- B. Kayah State
- C. Sagaing Region
- D. Mon State

**Answer: C. Sagaing Region** 

**Explanation:** 

The Sagaing Region has seen the highest number of internally displaced persons (IDPs) since the 2021 military coup in Myanmar, as per the UN Office for the Coordination of Humanitarian Affairs (UNOCHA). It borders India, particularly the state of Manipur.

Clashes between the junta and resistance forces have led to large-scale civilian displacement.



