

The Hindu Important News Articles & Editorial For UPSC CSE

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Defence Minister Rajnath Singh addressed the growing challenge posed by unconventional warfare methods, including Artificial Intelligence (AI)-based warfare, cyber attacks, and other advanced forms of conflict.

Unconventional methods like AI-based warfare a big challenge, says Rajnath

Press Trust of India

MHOW (M.P.)

Defence Minister Rajnath Singh said on Monday that unconventional methods like Artificial Intelligence (AI)-based warfare and cyber attacks pose a big challenge.

Addressing officers at the Army War College in Mhow Cantonment in Madhya Pradesh, Singh said India's defence exports have crossed a record ₹21,000 crore from ₹2,000 crore a decade ago. He said a target has been set to achieve defence exports of ₹50,000 crore by 2029.

"Unconventional methods like information warfare, AI-based warfare, proxy warfare, electromagnetic warfare, space warfare, and cyber-attacks are posing a big challenge," Mr. Singh said.

He stressed the need for the military to be well trained and equipped to fight off such attacks and lauded training centres in Mhow for their valuable contributions.

Mr. Singh said mastering frontier technologies is the need of the hour in the constantly evolving times, noting that military training centres are playing a crucial role in equipping



Defence Minister Rajnath Singh pays tributes to the brave-hearts at the Infantry Memorial at Mhow in Indore on Monday. ANI

and readying soldiers to deal with future challenges.

"Our defence exports, which were around ₹2,000 crore a decade ago, have crossed the record figure of ₹21,000 crore today. We have set an export target of ₹50,000 crore by 2029," Mr. Singh said.

He said 'made-in-India' equipment is being exported to other countries.

Mr. Singh commended the training centres for constantly improving their training curriculum as per changing times, and striving to make the personnel fighting fit for every kind of challenge.

He appealed to officers to explore the possibility of promoting integration through training in areas such as weapons training

in Infantry School; AI and communication technology in Military College of Telecommunication Engineering (MCTE), and leadership - junior and senior command in AWC.

Mr. Singh said that some officers will work as defence attaches in the future, and they should strive to secure national interests at the global level.

He said the government is committed to making India one of the strongest economic and military powers in the world.

Chief of the Army Staff General Upendra Dwivedi and other senior officials of the Army were present on the occasion.

The Defence Minister laid a wreath and paid homage to brave-hearts at the Infantry Memorial.

Types of Emerging Threats

- ➔ **AI-Based Warfare:** Leveraging AI for decision-making and automation in military operations could outpace traditional warfare tactics. AI can also be used in autonomous weapons, making the battlefield more complex and unpredictable.
- ➔ **Cyber Attacks:** Increasing reliance on digital infrastructure makes military systems vulnerable to cyber-attacks, which could disrupt command and control, intelligence systems, and critical infrastructure.
- ➔ **Information Warfare:** Manipulating public opinion and spreading misinformation can destabilize societies, making information control a critical element of modern conflicts.
- ➔ **Electromagnetic Warfare:** The use of electromagnetic fields to disable enemy communication and radar systems is emerging as a new mode of attack.
- ➔ **Space Warfare:** The militarization of space presents new vulnerabilities, with satellite systems becoming targets for cyber or physical attacks.
- ➔ **Proxy Warfare:** Involves the use of indirect methods such as using non-state actors to advance national interests, complicating the attribution of attacks.

Challenges in Combating New Threats

- ➔ The rapid evolution of these threats requires swift adaptation, with militaries needing to integrate new technologies, like AI, to counter them effectively.
- ➔ Traditional defence systems and training may not be sufficient to address such advanced threats, demanding a rethinking of defence strategies and tactics.
- ➔ Cybersecurity, in particular, requires ongoing innovation and vigilance to protect against increasingly sophisticated cyberattacks.

India's Response to Emerging Threats

- ➔ Defence Minister Rajnath Singh emphasized the importance of mastering frontier technologies to keep up with evolving challenges.
- ➔ The government has focused on enhancing military training programs, particularly in areas like AI, communication technology, and leadership.
- ➔ Training centres like those in Mhow Cantonment are evolving their curricula to address these new challenges, preparing soldiers for future warfare.
- ➔ India's defence exports have significantly increased, with a target of ₹50,000 crore by 2029, reflecting the country's growing capabilities in advanced defence technology.

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Way Forward: Strengthening Defence and Preparedness

- ➔ **Invest in AI Research:** Continued investment in AI research is crucial to develop new technologies and techniques to combat AI-driven threats.
- ➔ **Develop AI-Powered Defenses:** The development of AI-powered defenses, such as machine learning-based intrusion detection systems, is essential to detect and respond to advanced threats.
- ➔ **Promote International Cooperation:** International cooperation is needed to share information and best practices in combating AI-driven threats.
- ➔ **Develop Ethical Guidelines:** The development of ethical guidelines for the use of AI in cybersecurity is necessary to ensure that these technologies are used responsibly.

Conclusion

- ➔ The emergence of unconventional warfare methods presents new challenges for national security.
- ➔ India must prioritize advancements in frontier technologies like AI and cyber defense.
- ➔ Comprehensive strategies are essential for future readiness.

PYQ: Mains 2015

Ques : Considering the threats cyberspace poses for the country, India needs a "Digital Armed Force" to prevent crimes. Critically evaluate the National Cyber Security Policy, 2013 outlining the challenges perceived in its effective implementation. **(200 words/12.5m)**

The article discusses the vital role of elder animals in ecosystems, highlighting their contributions to species survival and conservation.

Grave new world: human-induced loss of elders threatens various species

Climate extremes and habitat destruction caused by human activity can hasten the loss of elders in a species and disrupt the stability of populations. Ecologists have documented a cascade of consequences moving through the population when elders disappear, altering structures and behaviour

Rupsy Khurana

As people age, they accrue richer experiences, and their wisdom deepens.

So do animals. From elephant matriarchs to shark grandmothers, the elders of the animal kingdom carry a treasure trove of knowledge, having guided, and still guiding, their families through the uncertainties of life in the wild.

The earth's life forms are very diverse and unsparingly complex. No two species age the same. Yet there is also a growing body of evidence that older, wiser individuals are crucial in similar ways to many species.

"Because of the diversity in animal social systems, the important position that older individuals often occupy can be for a variety of reasons, but often involves them either being particularly dominant individuals who stabilise the social hierarchy in some way through their presence or by acting as repositories of information that they've acquired over their lifetime – which can be particularly important when times get tough," Josh Firth, an associate professor at the University of Leeds, said.

"There are a range of potential benefits of older individuals across different types of animals. They are not the same for all species," Keller Kopf, a senior lecturer in ecology at Charles Darwin University, Australia, added.

Without these elders, fish may never find their spawning grounds, and birds would get waylaid as they flew across continents.

Ageing in the wild

A review published in *Science* on November 21 suggested that the worldwide loss of old individuals due to shrinking habitats, hunting, climate change, and other human-caused disturbances can be particularly detrimental to long-lived species.

According to the researchers, protecting a species' elders is important for all its members to be able to pass on their cultures and what they know about adapting to changing weather to their future generations, and to help buffer them against human disturbances.

While this may go for both short- and long-lived species – the mayfly lives for a day, whereas the Antarctic glass sponge can live for millennia – the focus on long-lived species in particular is partly because of data.

"Evidence for the contributions of older individuals in short-lived species is limited," Kopf, the lead author of the study, said.

Scientists have been studying ageing for decades, but most of their research has focused on the negative effects of biological ageing on human health. Only recently have they been looking at the benefits of ageing in wild populations.

"Research on the benefits of old individuals has been happening in different disciplines in silos," Kopf said.

What old means

He and his team analysed more than 9,800 peer-reviewed studies from 1900 to 2023, investigating the roles of elderly individuals in several species. These roles included knowledge transmission, assisted parental care, nutrient cycling,



A herd of elephants follows its leader in Tarangire National Park, Tanzania. MAXIM MEDVEDEV

and coping with extreme weather.

"Until now, no study has pulled together data across different taxonomic groups to highlight the range of potential benefits of growing old," according to Kopf.

Before the team could analyse the data, it had to agree on what "old" meant. A three-year-old mouse could be considered old, whereas a 30-year-old elephant could be considered young, Kopf said. But the lack of data on short-lived species limited the researchers' options to two groups: long-lived mammals and birds (which are often social species that invest significant time and effort in parenting their offspring) and cold-blooded animals (like fish and reptiles, which continue to grow throughout their lifespan).

"Traits such as social behaviour, migration, parental care, and increased reproductive output make older individuals in moderate to long-lived species essential for their ecology and therefore conservation," Kopf said.

"However, this importance exists on a continuum and is not a binary."

Of elephants and orcas

Climate extremes and habitat destruction caused by human activity can hasten the loss of elders in a species and disrupt the stability of populations. Ecologists have documented a cascade of consequences moving through the population when the elders disappear, altering social structures and behaviour.

For example, young elephants of both sexes depend on help from the matriarch, the oldest female and often the largest. One 2011 study of African elephants in the wild found that when they were played recordings of lions roaring, a herd's members would create a defensive formation. Groups led by matriarchs more than 60 years old gathered faster and confronted the threatening calls with more aggression.

"If older individuals are removed from

the wild, by capture or unnatural death, younger ones struggle to survive without their knowledge," Anindya Sinha, a professor at the National Institute of Advanced Studies, Bengaluru, said. "Because they are directionless, there might be an increased risk of negative interactions with humans."

"Our work on Asian elephants in Bandipur and Nagarhole National Parks in Karnataka shows that females in herds [with calves] and fewer experienced individuals exhibited high levels of stress hormone," Sanjeeta Sharma Pokhrel, an assistant professor at Kyoto University in Japan, said. A 2018 study she co-authored suggested that the higher stress could be due to lack of help with parental care, the high energy demands of vigilance, and the responsibility of protecting calves from predators.

Studies have also found that older female orcas (*Orcinus orca*) undergo menopause. According to experts, one compelling explanation for this phenomenon is called the grandmother hypothesis. Grandmother orcas stop being able to reproduce so they can help their daughters care for calves, protect them from predators, and guide them to the best feeding grounds.

A new conservation paradigm

Because of the great benefits of protecting the older members of a species, the researchers have advanced a new paradigm called longevity conservation.

"Biodiversity conservation and threatened species policies should protect age structure," Kopf wrote in *The Conversation*. "This is particularly important in long-lived species that produce more offspring with age, or where migration, social networks, and cultural transmission of knowledge are required for survival."

For example, in fish and reptiles, the older individuals lay more eggs and give birth to offspring better equipped to

Protecting a species' elders is important for all its members to be able to pass on their cultures and what they know about adapting to changing weather to their future generations and to help buffer them against human disturbances

survive environmental fluctuations. So Kopf advocates age and size-based fisheries, management strategies that better protect older individuals.

But significant challenges arise when the longevity conservation paradigm comes in contact with ground realities, such as in India.

More than 700 marine fish species are caught every year along both coasts of the country, with fishing vessels targeting multiple species simultaneously. How experts can implement a management strategy that protects individuals while allowing uninterrupted harvesting is unclear.

"Protecting larger, older fish is important for conservation, but in a multi-species fishery like India, it's extremely challenging," Mayuresh Gangal, a research affiliate at the Nature Conservation Foundation, said.

"Different species vary in size as they age, and their life histories differ significantly. On top of that, the fishing gear cannot be very target-specific in multi-species fisheries. It is difficult to tailor gear to target specific species or sizes effectively."

Kopf also wrote in *The Conversation* that the "loss of old individuals is not yet recognised by the International Union for Conservation of Nature as a means of listing threatened species."

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Importance of Elders in the Animal Kingdom

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- ➔ Elder animals, from elephant matriarchs to shark grandmothers, guide their families through life's challenges, imparting crucial knowledge.
- ➔ The roles of older animals are crucial across species, particularly in how they stabilize social hierarchies and pass on knowledge for survival.

Aging in the Wild

- ➔ Aging varies across species, with older individuals often holding significant roles in social stability and knowledge transmission.
- ➔ Researchers highlight that the loss of older individuals due to factors like habitat destruction, hunting, and climate change can significantly impact species, particularly long-lived animals.
- ➔ These elders are vital for passing on cultural practices and knowledge of adaptation.
- ➔ Elder individuals in long-lived species are essential for knowledge transmission, assisted parental care, and survival strategies in harsh environments.

Examples of Elder Roles in Animal Social Structures

- ➔ **Elephants:** African elephants rely heavily on matriarchs, the oldest females, for survival. Studies show that elephant herds with older matriarchs respond more effectively to threats, such as lion roars. In their absence, younger elephants struggle to adapt and may even face increased risks of conflict with humans.
- ➔ **Orcas:** Older female orcas undergo menopause, enabling them to assist in raising their daughters' calves. This behavior, known as the grandmother hypothesis, is crucial for the survival of orca populations, as older females help guide the young to feeding grounds and protect them from predators.

Impact of Human Activities on Elders

- ➔ Human activities like climate change and habitat destruction threaten the survival of elder animals, leading to cascading effects on the social structure and behavior of species.
- ➔ In species like elephants and orcas, the loss of elders disrupts social stability and makes it more challenging for younger members to thrive, increasing stress and vulnerability.

Longevity Conservation Paradigm

- ➔ The concept of longevity conservation is introduced, advocating for the protection of older individuals in species conservation efforts.

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- This includes preserving age structure, which is critical in long-lived species that rely on older individuals for reproduction, migration, and cultural transmission of knowledge.
- This paradigm is particularly important for species in fluctuating environments, such as fish and reptiles, where older individuals contribute more to reproduction and survival.

Challenges in Implementing Conservation Strategies

- Implementing longevity conservation strategies is challenging, particularly in multi-species fisheries like those in India, where different species grow at different rates and require different management approaches. Fishing gear cannot easily target specific species or ages.
- Despite the benefits, the International Union for Conservation of Nature (IUCN) has not yet recognized the loss of older individuals as a primary criterion for listing species as threatened.

Conclusion

- Protecting elder animals is crucial for biodiversity and ecosystem stability.
- Their knowledge, experience, and roles in social structures help ensure species' survival, especially in the face of environmental changes and human disturbances.
- Efforts to protect these individuals through strategies like age-based fisheries management can aid in conservation, though significant challenges remain in implementing these strategies.

UPSC Mians Practice Question

Ques : Examine the significance of older individuals in animal species' survival and discuss the challenges in implementing longevity conservation strategies. **(150 Words /10 marks)**

On December 24, NASA's Parker Solar Probe made history by flying closer to the sun than any spacecraft before.

- ➔ It reached a distance of 6.1 million kilometers from the sun's surface, with its heat shield exposed to temperatures above 930°C.

NASA's Parker Solar Probe:

➔ Overview

- The Parker Solar Probe is a NASA spacecraft designed to study the Sun.
- Launched on August 12, 2018, it is on a seven-year mission to get closer to the Sun than any spacecraft before.

➔ Mission Objectives

- The primary goal is to understand the Sun's outer atmosphere, called the corona, and its behavior.
- It aims to uncover the origins of solar wind and understand how solar storms (coronal mass ejections) affect Earth.
- The probe seeks to answer why the Sun's corona is hotter than its surface.

➔ Heat Shield Technology

- The spacecraft is equipped with a heat shield to protect it from extreme temperatures, with the Sun's heat reaching over 930°C.
- Despite the intense heat, the probe's instruments are kept near room temperature (around 29°C).

➔ Future Milestones

- The Parker Solar Probe will make multiple close passes to gather more data, with significant flybys scheduled in 2025.



A 2018 artist's concept shows the Parker Solar Probe flying into the sun's outer atmosphere on a mission to help scientists learn more about the star. NASA/JOHNS HOPKINS APL/STEVE GRIBBEN

NASA probe flies closer to the sun than any spacecraft

Agence France Presse

NASA's pioneering Parker Solar Probe made history on December 24 when it flew closer to the sun than any other spacecraft, with its heat shield exposed to scorching temperatures topping 930 degrees Celsius.

Launched in August 2018, the spaceship is on a seven-year mission to deepen scientific understanding of our star and help forecast space-weather events that can affect life on the earth.

Tuesday's historic flyby should have occurred at precisely 5:23 am IST (1153 GMT), although mission scientists will have to wait for confirmation until December 28 as they lose contact with the craft for several days due to its proximity to the sun.

"Right now, the Parker Solar Probe is flying closer to a star than anything has ever been before," at 6.1 million kilometres away, NASA official Nicky Fox said in a video on social media on the morning of December 24.

"It is just a total 'yay, we did it' moment."

If the distance between the earth and the sun is the equivalent to the length of an American football field, the spacecraft should have been about four metres from the end zone at the moment of closest approach, a point that scientists call perihelion.

"This is one example of NASA's bold missions, doing something that no one else has ever done before to answer long-standing questions about our

Launched in 2018, the spaceship is on a seven-year mission to deepen scientific understanding of our star and help forecast space-weather events that can affect life on the earth

universe," Parker Solar Probe programme scientist Arik Posner said in a statement on December 30.

"We can't wait to receive that first status update from the spacecraft and start receiving the science data in the coming weeks."

So effective is the heat shield that the probe's internal instruments remained near room temperature -- around 29 degrees Celsius -- as it explored the sun's outer atmosphere, called the corona.

The Parker Solar Probe will also be moving at a blistering pace of around 690,000 km/hr, fast enough to fly from New Delhi to Chennai in around 10 seconds.

"Parker will truly be returning data from uncharted territory," said Nick Pinkine, mission operations manager at the Johns Hopkins Applied Physics Laboratory (APL) in Laurel, Maryland.

"We're excited to hear back from the spacecraft when it swings back around the sun."

By venturing into these extreme conditions, the Parker probe has been helping scientists tackle some of the sun's biggest mysteries: how solar wind originates, why the corona is hotter than the surface below, and how coronal mass ejections -- massive clouds of plasma that hurl through space -- are formed.

The Christmas Eve flyby was the first of three record-setting close passes. The next two are set to occur on March 22 and June 19, 2025, and both are expected to bring the probe back to a similarly close distance from the sun.

After its launch in 2018, the probe has been gradually circling closer towards the sun, using flybys of Venus to gravitationally pull it into a tighter orbit.

In News : National Green Tribunal (NGT)

The National Green Tribunal has sought a response from the Central Pollution Control Board and Jaipur's District Magistrate in a matter related to several students getting hospitalised after a suspected gas leak in the Rajasthan capital.



About National Green Tribunal:

- It was established in 2010 under the National Green Tribunal Act, 2010 for effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources.
- It is a specialized body equipped with the necessary expertise to handle environmental disputes involving multi-disciplinary issues.
- The Tribunal shall not be bound by the procedure laid down under the Code of Civil Procedure, 1908, but shall be guided by principles of natural justice.

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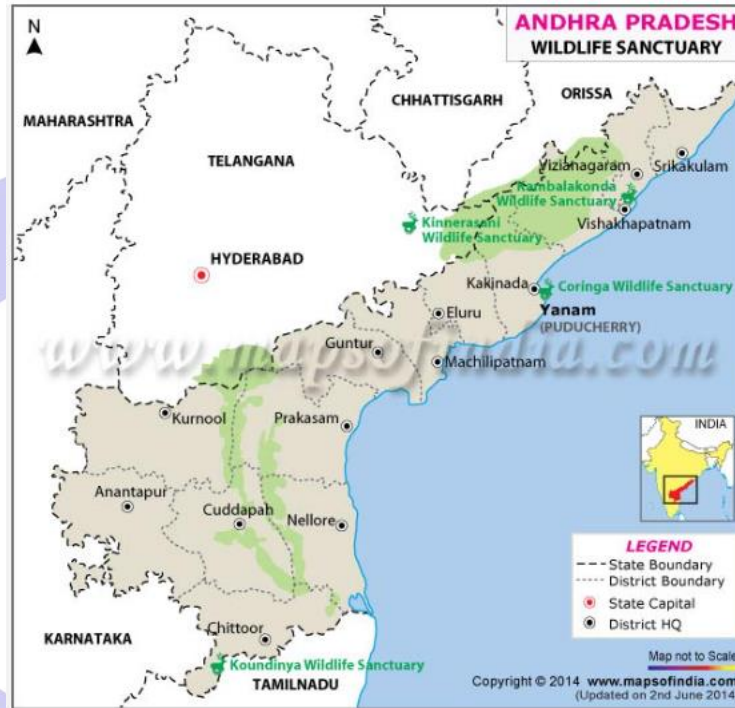
- ➡ The Tribunal is mandated to make and endeavour for disposal of applications or appeals finally within 6 months of filing of the case.
- ➡ **Locations:** New Delhi is the Principal Place of Sitting of the Tribunal and Bhopal, Pune, Kolkata and Chennai shall be the other four place of sitting of the Tribunal.
- ➡ **Composition of NGT:** The Tribunal comprises:
 - **Chairperson:** A retired Supreme Court judge.
 - **Judicial members:** Retired High Court judges.
 - **Expert members:** Professionals with at least 15 years of experience in fields related to environment or forest conservation.



In News : Fishing Cat Collaring Project

The Wildlife Institute of India-Dehradun is set to launch India's first Fishing Cat Collaring Project at Coringa Wildlife Sanctuary.

Analysis of the news:



India's First Fishing Cat Collaring Project:

- The Wildlife Institute of India-Dehradun is executing India's first Fishing Cat Collaring Project as part of the second fishing cat census.
- This three-year project aims to study the species' home range, behaviour, habitat ecology, feeding habits, and space use.
- The project plans to collar 10 fishing cats with lightweight GIS-equipped devices.
- The collaring is expected to be completed by March or April 2025.

Fishing Cats

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➡ **Scientific Name:** Prionailurus viverrinus.

➡ **Description:**

- It is twice the size of a house cat.
- The fishing cat is nocturnal (active at night) and apart from fish also preys on frogs, crustaceans, snakes, birds, and scavenges on carcasses of larger animals.
- The species breed all year round.
- They spend most of their lives in areas of dense vegetation close to water bodies and are excellent swimmers.

Habitat:

- ➡ Fishing cats have a patchy distribution along the Eastern Ghats. They abound in estuarine floodplains, tidal mangrove forests and also inland freshwater habitats.
- ➡ Apart from Sundarbans in West Bengal and Bangladesh, fishing cats inhabit the Chilika lagoon and surrounding wetlands in Odisha, Coringa and Krishna mangroves in Andhra Pradesh.

Threats:

- ➡ A major threat for fishing cats is the destruction of wetlands, their preferred habitat.
- ➡ Shrimp farming is another growing threat to the mangrove habitats of the Fishing Cat.

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- This unique cat also faces threats from hunting for meat and skin.
- Tribal hunters indulge in ritual hunting practices throughout the year.
- It is also occasionally poached for its skin.

Protection Status:

- **IUCN Red List:** Vulnerable
- **CITES:** Appendix II
- **Indian Wildlife Protection Act, 1972:** Schedule I

Coringa Wildlife Sanctuary:

- Spanning 235 square kilometers, Coringa Wildlife Sanctuary (CWS) is India's second-largest mangrove habitat.
- It is home to the endangered fishing cat.
- Located in the Godavari estuary, the sanctuary lies at the confluence of the Coringa River and the Bay of Bengal in Kakinada, Andhra Pradesh.
- Krishna Wildlife Sanctuary in the Krishna estuarine forest area is another habitat for the fishing cat..

One Nation One Election and representative democracy

The Constitution (One Hundred and Twenty-Ninth Amendment) Bill, 2024, that was tabled in the Lok Sabha, proposes simultaneous elections for the Lok Sabha and State/Union Territory Legislative Assemblies with the insertion of Article 82(A). This ambitious reform seeks to synchronise elections, fix the tenure of the Lok Sabha, and simultaneously align elections to the State Assemblies. If the Lok Sabha or a State Assembly is dissolved before its five-year term, mid-term elections will only cover the remainder of the original tenure.

The Bill also amends Articles 83, 172, and 327, with changes effective from an 'appointed date', post-2029 general elections, thereby initiating simultaneous elections in 2034. A second Bill, the Union Territories Laws (Amendment) Bill, 2024, aligns the tenure of Union Territories' legislative Assemblies with the Lok Sabha and State Assemblies.

While the proposal seeks administrative efficiency and reduced election fatigue, critical questions arise: has the 'One Nation, One Election (ONOE)' process been truly inclusive and representative? Are there limits to our understanding of the representative spirit of Indian democracy?

Understanding representative democracy
Representative democracy is a system wherein citizens elect representatives to make decisions on their behalf. Rooted in the principles of free and fair elections, political accountability, and the protection of individual rights, it balances majority rule with the protection of minority interests. This form of governance becomes especially critical in diverse and populous countries such as India.

The theoretical underpinnings emphasise that elected representatives act as intermediaries, ensuring stable governance while accommodating competing interests. Citizens, being too numerous and diverse to participate directly in governance, delegate authority to their elected representatives. The system thrives on periodic elections, informed citizen participation, and institutional checks and balances.

Despite its theoretical merits, representative democracy faces growing challenges in practice. A 2024 Pew Research Center study across 24 nations, including Brazil, India, Nigeria, South Africa, the United Kingdom, and the United States, revealed widespread disillusionment with



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The process adopted for the One Nation One Election Bill had lapses that affect India's democratic fabric

the system. Citizens increasingly questioned its effectiveness, with some exploring alternatives such as direct democracy, expert rule, or even authoritarian regimes.

In 13 countries, significant segments supported strong leaders bypassing parliamentary checks, reflecting frustration with institutional inefficiencies. Alarmingly, military rule garnered between 15% to 17% support in nations such as Greece, Japan, the U.K., and the U.S. Such trends underscore growing distrust in representative systems, driven by perceived inefficiencies, corruption, and unfulfilled promises.

Jayaprakash Narayan's critique

In India, debates about representative democracy are not new. Jayaprakash Narayan, in his seminal work, *A Plea for Reconstruction of Indian Polity* (1959), offered a deep critique of parliamentary democracy. JP argued that the reliance on individual voting created an 'atomized society', where fragmented, partisan politics overshadowed the collective national interest.

JP highlighted the following defects – risks of minority governments: In a multi-party system like India, he warned that parliamentary democracy risks unstable and unrepresentative governments.

First, demagoguery and populism: JP highlighted how political parties manipulate public opinion through half-truths, empty promises, and divisive rhetoric.

Second, centralisation of power: Parliamentary democracy, according to JP, concentrates power in the state, weakening intermediary institutions between citizens and the national government.

Third, financial costs of elections: JP critiqued the exorbitant cost of elections, tethering democracy to moneyed interests and large organisations.

While critical, JP's analysis aimed to reform and strengthen democracy. His concerns resonate today as India debates ONOE and its implications for democratic representation.

For a reform as significant as ONOE, an inclusive and representative process is crucial. In representative democracies, public opinion shapes policy, holding governments accountable to citizens' aspirations and concerns. To achieve this, pre-legislative consultation becomes indispensable, enabling policymakers to gather diverse views, address challenges, and enhance transparency.

The Pre-Legislative Consultation Policy, 2014,

mandates a minimum 30-day period for public feedback on proposed legislation. It requires draft Bills to be accompanied by explanatory notes that clarify key provisions in accessible terms.

However, the process adopted for ONOE fell short. First, inadequate consultation period: The high-level committee issued a public notice on January 5, 2024, inviting suggestions on ONOE. Citizens were given just 10 days – until January 15 – to respond, undermining the spirit of the 2014 policy. Second, lack of explanatory material: Despite the high-level committee being established in September 2023, no explanatory notes or background papers were provided, limiting citizens' understanding of the proposal's scope and challenges. Third, framing of questions: The high-level committee's approach, seeking 'yes/no' responses on supporting ONOE, appeared perfunctory, giving the impression the matter was already settled.

Such procedural lapses risk alienating citizens and stakeholders, undermining trust in the reform process. In a diverse democracy like India, meaningful public engagement is vital to ensure that policy reflects varied perspectives and fosters consensus.

Implications for representative democracy

The ONOE Bill raises critical questions about the representative nature of Indian democracy. First, centralisation versus federalism: synchronising elections risks a further centralising of power, potentially undermining the federal spirit of the Constitution. State-specific issues may be overshadowed by national narratives. Second, inclusivity and participation: by curtailing consultation and rushing reforms, the government risks sidelining citizens' voices, weakening democratic inclusivity. Third, electoral accountability: frequent elections, while resource-intensive, enhance accountability by enabling voters to evaluate governments regularly. Simultaneous elections could dilute this accountability.

India's democratic fabric thrives on citizen participation, inclusivity, and accountability. Reforms such as ONOE, while aimed at efficiency, must not compromise these principles. A rushed process undermines trust and risks centralisation. Only by adhering to the principles above can our democracy remain truly representative in letter and spirit.

The views expressed are personal

GS Paper 02 : Social Justice – Health

UPSC Mains Practice Question: Discuss the challenges posed by the current drug regulatory framework in India, particularly in addressing the issue of Not of Standard Quality (NSQ) drugs. How can information sharing and legal reforms improve drug safety and public health? **(250 Words /15 marks)**

Context :

- Recent incidents involving NSQ drugs have raised concerns, with five young mothers in Ballari, Karnataka, allegedly dying due to contaminated drugs manufactured by a pharmaceutical company in West Bengal.

Incidents of Not of Standard Quality (NSQ) Drugs in India

- The Drugs and Cosmetics Act, 1940, allows pharmaceutical companies to sell their drugs across the country, even if they are licensed and inspected only in the state where the manufacturing facility is located.
- This regulatory gap makes it difficult for states like Karnataka to prevent poorly manufactured drugs from flooding local pharmacies, leading to significant public health risks.

Problems Faced by States in Addressing NSQ Drugs

- Some states face challenges in dealing with drugs manufactured outside their jurisdiction.
- Drug inspectors can only prosecute pharmaceutical companies, which is a time-consuming process.
- During the trial, manufacturers from other states can continue selling their products, as only the home-state drug inspectors have the authority to cancel or suspend manufacturing licenses.

Proposed Solutions to Address the Issue

- One cost-effective solution is to promote information sharing between the drug control departments of different states and public procurement agencies.
- A centralized database of test results from central and state drug testing laboratories would allow drug inspectors and procurement officials to track drug failures across states. This would help in adopting a risk-based approach for enforcement and procurement decisions.
- Centralized inspection reports and licensing information from state drug inspectors should also be made available in one database.
- This would allow procurement agencies to verify pharmaceutical companies' credentials and avoid the purchase of low-quality drugs.

Benefits of a Centralized Database

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Daily News Analysis

- A centralized database would assist procurement agencies the state agencies in verifying the quality of pharmaceutical manufacturers before purchasing drugs.
- This would help prevent incidents like the recent scandal in Maharashtra, where spurious antibiotics were sold to public hospitals.
- By tracking manufacturers with poor inspection records, procurement officers can prioritize suppliers from states known for rigorous inspections, ultimately improving public health outcomes.

Additional Recommendations

- A central register should be created by the Union Ministry of Health to record pharmaceutical manufacturers blacklisted by procurement agencies for supplying NSQ drugs. This would help eliminate bad players from the market.
- States should be empowered with legal authority to block manufacturers from other states from selling drugs within their jurisdiction if the drugs have caused adverse health effects, such as deaths, until the manufacturers rectify the issue.

Conclusion:

- The issue of NSQ drugs in India highlights significant regulatory gaps and public health risks.
- Strengthening information sharing through centralized databases can improve drug quality control.
- Empowering states with legal authority and advocating for legislative reforms will ensure better monitoring and enforcement, improving drug safety across the nation.