

# The Hindu Important News Articles & Editorial For UPSC CSE

**Tuesday, 29 April, 2025**

## Edition: International Table of Contents

<b>Page 06</b> <b>Syllabus : GS 3 : Science &amp; Technology</b>	<b>ISRO's second short hot test of semicryogenic engine a success</b>
<b>Page 06</b> <b>Syllabus : GS 2 : Social Justice</b>	<b>Smoking is a major risk factor for rheumatoid arthritis, say experts</b>
<b>Page 07</b> <b>Syllabus : GS 3 : Science &amp; Technology and Agriculture</b>	<b>RNA-based antiviral offers strong defence against deadly agri virus</b>
<b>Page 08</b> <b>Syllabus : GS 3 : Science and Technology</b>	<b>Clean AI : India must stay the course of powering AI technology sustainably</b>
<b>In News</b>	<b>United Nations High Seas Treaty</b>
<b>Page 08 : Editorial Analysis:</b> <b>Syllabus : GS 2 : Indian Polity</b>	<b>The real Indian arbitrator needs to stand up</b>

Quality education

India and France have finalized an Inter-Governmental Agreement (IGA) for the procurement of 26 Rafale-Marine (Rafale-M) fighter jets for the Indian Navy, at an approximate cost of ₹64,000 crore. Deliveries are scheduled between mid-2028 to 2030.

### Key Highlights of the Agreement

- Aircraft Composition:
  - 22 single-seater Rafale-Ms (carrier-compatible)
  - 4 twin-seater trainer jets (not carrier-compatible)
- Timeline:
  - Delivery to start 37 months after contract signing
  - Completion within 66 months (by 2030)
- Additional Components:
  - Simulators, weapons, support equipment
  - Performance-based logistics
  - Training in both France and India
- Indigenous Integration:
  - Transfer of Technology (ToT) for integrating Astra BVR missiles, an indigenous air-to-air missile system.
- Industrial Benefits:
  - Establishment of fuselage production and MRO (Maintenance, Repair, Overhaul) infrastructure in India
  - Expected job creation and support to MSME sector

### Strategic Significance for India

1. Naval Aviation Capability Boost:
  - Rafale-Ms will enhance the combat readiness of India's aircraft carriers INS Vikramaditya and INS Vikrant, which currently lack a dedicated modern fighter fleet.
2. Indo-French Defence Partnership:

## India and France finalise agreement for 26 Rafale-Ms

**Dinakar Peri**  
NEW DELHI

India and France on Monday formally concluded an Inter-Governmental Agreement (IGA), valued at nearly ₹64,000 crore, to procure 26 Rafale-M fighter jets for the Indian Navy. Deliveries are set to begin from mid-2028 and likely to be completed by 2030.

The IGA was signed by Defence Minister Rajnath Singh and Minister of Armed Forces of France Sebastien Lecornu remotely.

"The deal includes training, simulator, associated equipment, weapons, and performance-based logistics. It also includes additional equipment for the existing Rafale fleet of the Indian Air Force," a Defence Ministry statement said, adding that the crew will undergo training in France and India. The IGA also includes transfer of technology for the integration of indigenous weapons, such as the Astra Beyond Visual Range air-to-air missile, on the Rafales. "The delivery of these aircraft would be completed by 2030, with the crew undergoing training in France and India," the Defence Ministry statement said.

#### Likely to generate jobs

"It also includes the setting up of production facility for Rafale Fuselage as well as Maintenance, Repair and Overhaul (MRO) facilities for aircraft engine, sensors and weapons in India," the statement said, adding that the deal is expected to generate thousands of jobs and revenue for a large number of Micro, Small, and Medium Enterprises (MSMEs).

The French Defence Minister was scheduled to vi-



Deliveries are set to begin from mid-2028 and likely to be completed by 2030. DINAKAR PERI

sit India to sign the deal, but the visit was deferred due to personal reasons. Hence, the signing of the IGA was done by the two Ministers remotely.

The signed copies of the agreement, aircraft package supply protocol, and weapons package supply protocol were exchanged by Indian and French officials in the presence of Defence Secretary Rajesh Kumar Singh at Nausena Bhawan, the Defence Ministry said in a statement. Navy Vice-Chief Vice-Admiral Krishna Swaminathan and French Ambassador in India Thorry Mathou were also present at the event. In addition to the IGA, several associated Government-to-Business agreements were concluded.

The Indian Navy currently operates two aircraft carriers - the *INS Vikramaditya* procured from Russia and the indigenously built *INS Vikrant* commissioned in September 2022.

As per contractual terms, deliveries will begin 37 months from the date of contract and will be completed in 66 months. The deal includes 22 single-seater jets that can operate off aircraft carriers and four twin-seater trainer jets that are not carrier-compatible.

## Daily News Analysis

- The deal reinforces India-France ties as strategic partners in defence manufacturing and technology exchange.
- Builds upon the Rafale IAF deal (2016) and aligns with India's pursuit of high-tech platforms from trusted partners.
- 3. Atmanirbhar Bharat Push:
  - The ToT and MRO components support the government's goal of domestic defence industrialization.
  - Supports Indian MSMEs, contributing to economic self-reliance in defence.
- 4. Maritime Security Implications:
  - The induction of carrier-compatible fighters is crucial amid increasing naval assertiveness by China in the Indian Ocean Region (IOR).
  - Enhances India's blue-water naval capabilities and supports maritime domain awareness missions.

### Challenges and Considerations

- High Financial Cost:
  - At ₹64,000 crore, the deal may invite scrutiny on affordability and prioritization amid competing defence needs.
- Operational Integration:
  - Training and logistics for naval-specific operations are complex and time-consuming.
  - Adapting Rafale-Ms to operate effectively from India's carriers may pose technical challenges.
- Dependence on Imports:
  - Despite ToT, India remains dependent on foreign vendors for frontline platforms, underscoring the need to accelerate indigenous defence R&D.

### UPSC Mains Practice Question

**Ques :** The recent India-France agreement for Rafale-M fighter jets not only strengthens defence ties but also reflects India's broader strategic autonomy in foreign policy. Critically analyze.

According to the **Stockholm International Peace Research Institute (SIPRI)**, India's military expenditure in 2024 reached **\$86.1 billion**, making it the **fifth-largest** globally and nearly **nine times** that of **Pakistan**. The report comes at a time of heightened tensions between India and Pakistan after the **Pahalgam terror attack**.

# In 2024, India's military expenditure was nine times that of Pak.: SIPRI

The country's military expenditure, the fifth largest globally, grew by 1.6% to \$86.1 billion, while Pakistan spent \$10.2 billion, according to the Stockholm International Peace Research Institute

**Press Trust of India**  
NEW DELHI

India's military spending in 2024 was nearly nine times that of Pakistan's expenditure, according to a study released on Monday by a leading Swedish think tank that comes amid growing tensions between the two countries over the Pahalgam terror attack.

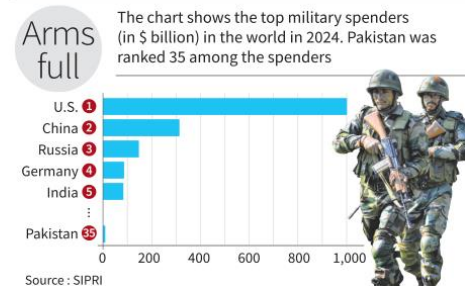
The country's military expenditure, the fifth largest globally, grew by 1.6% to \$86.1 billion while Pakistan spent \$10.2 billion, according to the Stockholm International Peace Research Institute (SIPRI).

The top five military spenders – the United States, China, Russia, Germany and India – accounted for 60% of the global total, with combined spending of \$1,635 billion, it said.

China's military expenditure increased by 7% to an estimated \$314 billion, marking three decades of consecutive growth, the study noted. China accounted for 50% of all mil-



Troops stand guard at a market area in Srinagar on Monday. AFP



itary spending in Asia and Oceania, investing in the continued modernisation of its military and expansion of its cyberwarfare capabilities and nuclear arsenal, it said in the report

titled "Trends in World Military Expenditure 2024".

SIPRI said military spending in Europe (including Russia) rose by 17% to \$693 billion and was the main contributor to the

global increase in 2024.

With the war in Ukraine in its third year, military expenditure kept rising across the continent, pushing European military spending beyond the level recorded at the end of the Cold War, it noted.

SIPRI said Russia's military expenditure reached an estimated \$149 billion in 2024, a 38% increase from 2023 and double the level in 2015. This represented 7.1% of Russia's GDP and 19% of all Russian government spending.

Ukraine's total military expenditure grew by 2.9% to reach \$64.7 billion – equivalent to 43% of Russia's spending. At 34% of GDP, Ukraine had the largest military burden of any country in 2024, the report added.

"Russia once again significantly increased its military spending, widening the spending gap with Ukraine," said Diego Lopes da Silva, Senior Researcher with the SIPRI Military Expenditure and Arms Production Programme.

## Key Findings Related to India

### • Military Expenditure:



## Daily News Analysis

- Increased by **1.6%** compared to the previous year.
- Total spending: **\$86.1 billion**.
- **Comparison with Pakistan:**
  - Pakistan's military spending: **\$10.2 billion**.
  - India's spending is **nearly nine times** higher than Pakistan's.
- **Global Standing:**
  - 5th largest military spender after the **U.S., China, Russia, and Germany**.

### Global Context

- **Top 5 Military Spenders:** United States, China, Russia, Germany, and India together accounted for **60%** of global military expenditure.
- **China's Expansion:** China spent **\$314 billion**, a **7% rise**, focusing on cyberwarfare and nuclear expansion.
- **Europe's Surge:** Europe's (including Russia) spending rose by **17%**, reaching **\$693 billion**, influenced heavily by the ongoing **Ukraine War**.
- **Russia and Ukraine:**
  - Russia's military spending grew by **38%** to **\$149 billion** (7.1% of its GDP).
  - Ukraine's military burden remains the world's highest at **34% of GDP**.

### Significance for India

- **Strategic Deterrence:**
  - A higher defence budget reinforces India's ability to maintain strategic deterrence against both **China** and **Pakistan**, particularly in a volatile regional security environment.
- **Modernization Drive:**
  - Reflects India's ongoing focus on **defence modernization**, acquisition of high-tech platforms (e.g., Rafale-Ms, S-400), and enhancing **maritime security**.
- **Regional Stability:**
  - India's growing military capabilities contribute to a balance of power in **South Asia**, but also risk heightening tensions with neighbors.
- **Self-Reliance Push:**
  - Budgetary focus is increasingly aligned with '**Atmanirbhar Bharat**', promoting indigenous defence production to reduce external dependence.

### Challenges and Concerns

- **Economic Strain:**

## Daily News Analysis

- Balancing rising defence expenditure with investments in critical sectors like health, education, and infrastructure is a delicate policy challenge.
- **Security Dilemma:**
  - Neighbors may perceive increased military spending as aggressive, leading to an **arms race** in the region.
- **Internal Security Pressure:**
  - Rising expenditures also need to address **internal threats** such as terrorism, insurgency, and cyberwarfare.
- **Global Geopolitics:**
  - As global military spending rises (especially with new-age threats like cyberwarfare and AI weapons), India must also prepare for **non-traditional threats**.

### Prelims Pointers

- **SIPRI:** Stockholm International Peace Research Institute, based in Sweden, known for research on conflict, armaments, arms control, and disarmament.
- **India's Rank:** 5th largest military spender globally in 2024.
- **India's Defence Budget Trend:** Rising steadily, focus on modernization, self-reliance, maritime capability.

### UPSC Prelims Practice Question

**Ques : Which of the following statements regarding the Stockholm International Peace Research Institute (SIPRI) is/are correct?**

1. SIPRI is based in Sweden and publishes annual reports on world military expenditure.
2. As per SIPRI 2024, India is the second largest military spender in the world.
3. SIPRI also conducts research on arms control and disarmament.

**Select the correct answer:**

- (A) 1 and 2 only
- (B) 1 and 3 only
- (C) 2 and 3 only
- (D) 1, 2, and 3

**Ans : B)**

### UPSC Mains Practice Question

**Ques :** India's rising defence expenditure must be seen as a strategic necessity rather than a regional provocation. Critically examine in the context of SIPRI's findings on South Asian military spending. **(250 Words)**



Following the **Pahalgam terror attack**, India blamed "cross-border linkages" to Pakistan. The **UN Security Council (UNSC)** issued a statement condemning the attack. However, under pressure from **China and Pakistan**, references to the **The Resistance Front (TRF)** and direct **cross-border linkages** were omitted. Despite this dilution, Indian officials termed it a "strong victory".

## UN statement a 'strong win' despite 'dilution': officials

Beijing 'welcomes' any measures to 'cool down' situation between India, Pakistan; UN statement had condemned attack, but omitted any reference to TRF or to cross-border linkages of the attack

**Suhasini Haidar**  
NEW DELHI

**D**ays after China reportedly helped Pakistan in diluting the UN Security Council statement on the Pahalgam terror attack, Beijing on Monday said it "welcomed" any steps to "cool down" the situation between India and Pakistan.

India has blamed the terror attack on "cross-border" linkages to Pakistan, with Foreign Secretary Vikram Misri briefing more than 20 envoys, including Chinese Ambassador Xu Feihong, on the evidence including digital communications gathered so far.

Chinese Foreign Minister Wang Yi had spoken to Pakistan's Deputy Prime Minister and Foreign Minister Ishaq Dar on Sunday, expressing support for what Mr. Wang called Pakistan's "resolute" action on terrorism. "As Pakistan's ironclad friend and



Security on the Attari-Wagah border on Monday. India has directly blamed the terror attack on "cross-border" linkages to Pakistan. PTI

all-weather strategic cooperative partner, China fully understands Pakistan's legitimate security concerns and supports Pakistan in safeguarding its sovereignty and security interests," a Chinese Foreign Ministry statement said about the call, adding China backs an "impartial investigation".

Asked specifically about Pakistan's call for an international investigation, possibly run by Russia and China, Chinese Ministry of

Foreign Affairs spokesperson Guo Jiakun said China "welcomes all measures that will help cool down the current situation".

The Chinese statements come after Friday's UNSC statement condemned the Pahalgam attack, but omitted any reference to the TRF or to cross-border linkages of the attack.

Diplomats said it was clear that objections from China and Pakistan on the "disputed nature" of the

Kashmir conflict had led to the differences in the language. However, government sources said the statement was a "strong victory" as it came despite Pakistan's current membership and China's support in amending the statement drafted by the US.

### 'Strongly condemned'

"The majority of the Council members supported the U.S. draft and strongly condemned this terrorist attack," a source said, pointing out that Pakistani Defence Minister Khawaja Asif had already admitted, in a recent interview to Sky News, to Pakistan's history of supporting, training and funding terror groups. "This open confession surprises no one and exposes Pakistan as a rogue state fuelling global terrorism and destabilising the region. The world can no longer turn a blind eye," the Indian mission at the UN said on Monday.

### Key Developments



## Daily News Analysis

- **India's Diplomacy:**
  - Foreign Secretary Vikram Misri briefed envoys (including China's Ambassador) about evidence linking the attack to Pakistan-based groups.
- **China's Role:**
  - China supported Pakistan's efforts to dilute the UNSC statement.
  - China called for "cooling down" tensions and backed Pakistan's call for an "international investigation".
- **Pakistan's Position:**
  - Pakistan demanded an impartial international investigation.
  - Pakistani Defence Minister admitted to Pakistan's historical support for terrorist groups, exposing contradictions.
- **UNSC Statement:**
  - Strongly condemned the Pahalgam terror attack.
  - No direct mention of TRF or cross-border terrorism.

### Strategic Significance for India

- **Diplomatic Win Despite Challenges:** Securing a UNSC condemnation, even in diluted form, despite China's and Pakistan's opposition, reflects India's growing diplomatic clout.
- **Global Narrative Building:** India's efforts continue to expose Pakistan's terror links globally, framing it as a "state sponsor of terrorism".
- **China-Pakistan Axis in UN:** Highlights how China systematically shields Pakistan at multilateral forums, complicating India's diplomatic efforts.
- **Pressure on Pakistan:** Pakistan's internal contradictions (public admissions about terror support) help India build its case further in international platforms.

### Challenges Ahead

- **UNSC Limitations:** Permanent members like China can dilute or block strong language or resolutions against Pakistan.
- **Geopolitical Complexities:** India must balance firm diplomacy against China while also managing broader global alignments (e.g., BRICS, SCO).
- **Sustained International Attention:** Keeping global focus on terrorism in Kashmir and exposing Pakistan's duplicity remains a long-term task.

### Prelims Pointers

- **The Resistance Front (TRF):** A proxy terror outfit operating in Kashmir, allegedly backed by Pakistan-based groups like Lashkar-e-Taiba.

## Daily News Analysis

- **UNSC Statements:** Require consensus; even one member's objection can lead to language dilution or statement blockage.
- **China's Traditional Stand:** Consistently shields Pakistan in international fora citing "regional sensitivities".



President **Droupadi Murmu** conferred **Padma Awards 2024** to **71 distinguished personalities** at a ceremony held at **Rashtrapati Bhavan's Durbar Hall**. These awards were announced on the eve of **76th Republic Day** (January 2024).

## Murmu presents the Padma awards to 71 personalities

Filmmaker Shekhar Kapur, Telugu actor Nandamuri Balakrishna, singer Pankaj Udhas, Sushil Kumar Modi, former hockey player P.R. Sreejesh, Tamil actor S. Ajith Kumar were among the 10 personalities presented with Padma Bhushan

**The Hindu Bureau**  
NEW DELHI

**O**samu Suzuki, former chief of Suzuki Motor Corporation; singer Pankaj Udhas; Sushil Kumar Modi, former Bihar Deputy Chief Minister; film director Shekhar Kapur; and Lakshmi pathy Ramasubbaier, publisher of the Tamil daily *Dinamalar*, were among the prominent personalities given the Padma awards by President Droupadi Murmu on Monday.

President Murmu conferred the honours on 71 of the 139 distinguished persons who were named for the country's top civilian awards – Padma Vibhushan, Padma Bhushan and Padma Shri – on the eve of the 76th Republic Day in January.

The award ceremony was held at the Rashtrapati Bhavan's Durbar Hall on Monday in the presence of Vice-President Jagdeep Dhankhar, Prime Minister Narendra Modi, Union Home Minister Amit Shah, and others.

Among the awardees, four received Padma Vibhushan, the second-highest civilian honour in the



President Droupadi Murmu confers the Padma Vibhushan award on writer M.T. Vasudevan Nair (posthumous); violinist L. Subramaniam and Chairman of Asian Institute of Gastroenterology and AIG Hospitals D. Nageshwar Reddy at the Rashtrapati Bhavan on Monday. ANI

country. While Suzuki and M.T. Vasudevan Nair, Malayalam writer and film director, were given the award posthumously, D. Nageshwar Reddy, chairman of Asian Institute of Gastroenterology and AIG Hospitals, and violinist Lakshminarayana Subramaniam received their awards in person.

Mr. Kapur, Telugu actor Nandamuri Balakrishna, Pankaj Udhas, Sushil Ku-

mar Modi, former hockey player P.R. Sreejesh, Tamil actor S. Ajith Kumar, chairperson of Zyklus Lifesciences Pankaj Patel, and Vinod Dham, an Indian-American engineer widely known as the 'Father of the Pentium', were the 10 distinguished personalities given the Padma Bhushan.

As many as 57 prominent personalities were given the Padma Shri. These include Mr. Ramasubba-

ier; former chairperson of the State Bank of India Arundhati Bhattacharya; industrialist Pawan Kumar Goenka; wildlife researcher and Marathi author Maruti Bhujangrao Chitampalli, who gave unique dictionaries on birds, animals and trees; and master puppeteer Bhimavva Dodabalappa Shillekyathara, who was one of the first women to practise Togalu Gombeyaata (leather

puppetry). Former AIIMS and SGPGI Director A.K. Mahapatra and Punjabi singer Jaspinder Narula Kaul were also awarded the Padma Shri.

### 30 unsung heroes

This year, the Padma awards were given to 30 unsung heroes, including 100-year-old Libia Lobo Sardesai, who played an important role in Goa's freedom movement.

### Key Points

- **Categories of Awards:**
  - **Padma Vibhushan:** Second-highest civilian award.
  - **Padma Bhushan:** Third-highest civilian award.
  - **Padma Shri:** Fourth-highest civilian award.
- **Total Awardees Announced:** 139 personalities.
- **Awarded on Monday:** 71 personalities (remaining will be awarded separately).

## Prominent Recipients

- **Padma Vibhushan:**
  - **Osamu Suzuki** (former chief, Suzuki Motor Corporation) – Posthumous.
  - **M.T. Vasudevan Nair** (Malayalam writer, filmmaker) – Posthumous.
  - **D. Nageshwar Reddy** (Gastroenterologist, AIG Hospitals).
  - **Lakshminarayana Subramaniam** (Violinist).
- **Padma Bhushan:**
  - **Shekhar Kapur** (Filmmaker).
  - **Nandamuri Balakrishna** (Telugu actor).
  - **Pankaj Udhas** (Singer).
  - **Sushil Kumar Modi** (Former Bihar Deputy CM).
  - **P.R. Sreejesh** (Former Hockey Player).
  - **S. Ajith Kumar** (Tamil actor).
  - **Pankaj Patel** (Chairperson, Zydu Lifesciences).
  - **Vinod Dham** (Engineer, 'Father of the Pentium').
- **Padma Shri** (Selected names):
  - **Arundhati Bhattacharya** (former SBI Chairperson).
  - **Pawan Kumar Goenka** (Industrialist).
  - **Maruti Bhujangrao Chitampalli** (Wildlife researcher and author).
  - **Bhimavva Doddabalappa Shillekyathara** (Master puppeteer of Togalu Gombeyaata).
  - **A.K. Mahapatra** (Neurosurgeon, former AIIMS Director).
  - **Jaspinder Narula Kaul** (Punjabi Singer).

## Special Focus: Unsung Heroes

- 30 "unsung heroes" were honoured, recognizing grassroots contributions.
- Notable among them:
  - **Libia Lobo Sardesai** (100 years old), Goa's freedom movement veteran.

## Significance of Padma Awards

- Recognizes excellence in diverse fields: Art, Literature, Science, Public Affairs, Medicine, Social Work, etc.
- Promotes acknowledgment of contributions from grassroots and non-metropolitan backgrounds.
- Reflects India's broadening definition of achievement beyond glamour and politics.

## Prelims Pointers



## Daily News Analysis

- **Order of Civilian Awards:** Bharat Ratna > Padma Vibhushan > Padma Bhushan > Padma Shri.
- **Authority to Confer:** Conferred by the **President of India**.
- **Announcement Timing:** Announced every year on the eve of **Republic Day** (26th January).
- **Focus on Grassroots:** In recent years, an emphasis on recognizing **unsung heroes** has increased.

### UPSC Prelims Practice Question

**Ques :** Which of the following statements about the Padma Awards is/are correct?

1. Padma Vibhushan is the highest civilian award in India.
2. Padma Awards are announced on the eve of Republic Day.
3. Only Indian citizens are eligible for Padma Awards.

Select the correct answer:

- (A) 1 and 2 only  
(B) 2 only  
(C) 2 and 3 only  
(D) 1, 2 and 3

Ans : B)

As summers intensify, Indian cities are struggling with **water shortages, rising electricity demand, and urban heat island effects**. A new study highlights major gaps in India's efforts toward achieving **Sustainable Development Goal-11 (SDG-11)**: creating inclusive, safe, resilient, and sustainable cities.

## India's urban future is at a crossroads

**A**s summer intensifies, Indian cities are struggling with water shortages and rising electricity demand and temperatures. Reports from Bengaluru and Hyderabad show a spike in water tanker bookings while power cuts loom due to increased air-conditioner usage. These annual struggles raise a pressing question – are our cities, where more than 30% of Indians live, prepared for climate extremes and rapid urbanisation?

Urbanisation, while bringing about growth and opportunities, also paves the way for increased pollution, congestion, and environmental impacts, which often hit the underprivileged the hardest. Sustainable Futures Collective, in their report, 'Is India Ready for a Warming World?' (2025), find that there is much more to be done regarding long-term planning for climate change in cities. Concerns about how our cities are handling the urban heat island effect have also been raised often in Parliament. Such stark ground realities underscore the pressing challenges our cities face in pursuing Sustainable Development Goal-11 (SDG-11): to create inclusive, safe, resilient, and sustainable urban environments by 2030.

### Do indices capture reality?

While global SDG-11 indicators exist, India lacks city-level tools for effective tracking. NITI Aayog's SDG Urban Index ranks 56 cities on 77 indicators, but its SDG-11 component is limited to four: Swachh Survekshan, road deaths, PMAY-U housing, and waste treatment. The Ease of Living Index covers 111 cities but lacks a comprehensive SDG-11 assessment.

International indices such as Mercer's and the Economist's Resilient Cities Index offer insights but miss Indian ground realities. The absence of a focused SDG-11 index hinders policymakers from identifying genuinely safe,



**Alok Kumar  
Mishra**

Professor, School of Economics, University of Hyderabad



**Pavan Kumar  
Thimmavajjala**

Research Associate, School of Economics, University of Hyderabad

Each city faces unique challenges, requiring localised governance, better planning, and city-specific strategies

sustainable, and inclusive cities, creating a policy-research gap.

To bridge this gap and supplement the indices used by NITI Aayog with a more comprehensive set of indices, our latest research constructs four distinct indices – one for each pillar of SDG-11 wherein we ranked 10 major cities (Hyderabad, Delhi, Bengaluru, Chennai, Mumbai, Pune, Kolkata, Jaipur, Ahmedabad, and Surat) based on performance across select indicators for each index. Nine indicators were used for safety, 19 for inclusivity, and 15 for resilience and sustainability indexes. The parameters used for defining the indicators were borrowed from the United Nations' definitions of the same in the urban context. Data was sourced from a wide range of datasets such as Census 2011, Road Transport Yearbook, Indian Forest Survey, National Crime Research Bureau, Periodic Labour Force Survey, National Family Health Survey-5, Reserve Bank of India, India Meteorological Department's Climatological Tables, and Ola Mobility Institute's Ease of Moving Index 2022. We employed a novel method known as the Shannon Entropy Weighting technique (borrowed from Multi-Criteria Decision-Making modelling) to generate weights for the indices as it provides a more objective approach to weighting.

The results provide key insights into SDG-11 implementation across cities. Among the 10 major cities analysed, Ahmedabad ranked first in inclusivity, while Jaipur ranked the lowest. Bengaluru appeared to be the safest city, whereas Kolkata ranked lowest in safety. Surat led in sustainability, while Kolkata lagged behind. In terms of climate resilience, Chennai ranked first, while Jaipur was the least resilient. A comparison with NITI Aayog's SDG-11 rankings showed that cities tagged as front-runners and performers fared poorly in our indices.

Variations in the inclusivity index reflect disparities in social

and economic participation, emphasising the need for equitable access to opportunities in urban planning and broadening the idea of inclusivity. Differences in safety rankings suggest that while some cities benefit from vigorous law enforcement, others require better crime prevention and urban safety strategies. Sustainability rankings reveal uneven progress in environmental planning, waste management, and pollution control, stressing the need for comprehensive sustainability policies. Disparities in resilience highlight gaps in disaster preparedness and recovery. Notably, the Annual Survey of Indian City Systems 2023 by Janaagraha reported that only 16 cities had a 'city sustainability plan', while 17 had 'city resilience strategies'. This indicates significant gaps in the groundwork needed for SDG-11 to make substantial progress in India.

### The road ahead

India's urban future is at a crossroads. Cities must establish better mechanisms for tracking SDG-11 at the urban local body (ULB) level. While some States and Union Territories have adopted district-level monitoring frameworks, urban local bodies must follow suit. Integrated Command and Control Centres, developed under the Smart Cities Mission, should be leveraged to collect real-time data and enhance urban planning and development processes. Additionally, as almost a third of urban residents are poor, addressing their needs is critical. India still relies on Census 2011 data, leading to severe underestimation of urban poverty. A periodic Urban Poor Quality of Living Survey at the State level is necessary to bridge this gap.

Each city (small and large) faces unique challenges, requiring localised governance, better planning, and city-specific strategies. Addressing these differences through data-backed, city-specific policies is crucial for a more equitable urban future.

## Key Problems Identified

- **Climate Extremes:**
  - Water scarcity and heatwaves in cities like **Bengaluru** and **Hyderabad**.
  - Over-reliance on tankers and surging power cuts due to air-conditioning load.
- **Rapid Urbanization Challenges:**
  - Pollution, congestion, environmental degradation, and inequality.
  - Underprivileged sections are the worst affected.
- **Inadequate Tracking Tools:**
  - NITI Aayog's **SDG Urban Index** covers only limited indicators for SDG-11.
  - Global indices (e.g., Mercer, Economist) do not reflect Indian ground realities.
  - Lack of a focused, city-specific SDG-11 monitoring framework.

## New Research and Findings

- **Alternative Indices Developed:**
  - Four new indices were constructed for **Safety, Inclusivity, Sustainability, and Resilience** using advanced data modeling (Shannon Entropy Weighting).
- **Key City Rankings:**
  - **Ahmedabad:** Best in Inclusivity.
  - **Bengaluru:** Safest city.
  - **Surat:** Most Sustainable.
  - **Chennai:** Most Climate-Resilient.
  - **Kolkata** and **Jaipur** consistently ranked lower in various categories.
- **Data Sources:**
  - Census 2011, Road Transport Yearbook, National Crime Records Bureau, Indian Forest Survey, PLFS, NFHS-5, RBI, IMD, Ola Ease of Moving Index, among others.
- **Discrepancy Found:**
  - Cities labeled as "front-runners" by official indices (like NITI Aayog's) often performed poorly under the research team's detailed evaluation.

## Major Concerns

- **Urban Poor are Neglected:**
  - Census 2011 data is outdated; true extent of urban poverty remains underestimated.
- **Lack of Disaster Preparedness:**
  - Only 16 cities have sustainability plans and only 17 have resilience strategies (Janaagraha Survey 2023).
- **Fragmented Planning:**

## Daily News Analysis

- One-size-fits-all policies ineffective; cities need **localized, customized solutions** based on real-time data.

### Recommendations for the Road Ahead

- **Localized Urban Governance:**
  - Strengthen Urban Local Bodies (ULBs) to track SDG-11 progress using real-time data.
- **Periodic Urban Surveys:**
  - Conduct **Urban Poor Quality of Living Surveys** at State level to better estimate needs.
- **Use of Smart Technologies:**
  - Leverage **Integrated Command and Control Centres** (Smart Cities Mission) for live data monitoring and better urban planning.
- **Inclusive Urban Planning:**
  - Special focus on equity, resilience, and sustainability while designing urban policies.
- **Data-Driven Decision Making:**
  - Move beyond administrative boundaries and rankings toward actual living condition improvements through robust metrics.

### Prelims Pointers

- **SDG-11 Objective:** Make cities inclusive, safe, resilient, and sustainable by 2030.
- **Shannon Entropy Method:** A mathematical model used for objectively assigning weights to different indicators in multi-criteria decision-making.
- **Urban Heat Island Effect:** Phenomenon where urban areas are significantly warmer than surrounding rural areas due to human activities.
- **Smart Cities Mission:** Launched in 2015 to promote cities that provide core infrastructure, a clean and sustainable environment, and a decent quality of life.

### UPSC Mains Practice Question

**Ques :** "The absence of city-specific monitoring mechanisms is a major hurdle in achieving Sustainable Development Goal-11 in India." Critically examine with examples.



# The post of Deputy Speaker is not symbolic or optional

**T**he Office of the Deputy Speaker of the Lok Sabha is not merely a ceremonial seat but also a constitutional imperative. Mandated under Article 93 of the Constitution of India, this role is not just supplementary to the Speaker's. It is vital for the uninterrupted functioning of the lower House of Parliament. However, in recent years, the Deputy Speaker's position has fallen into unusual and troubling neglect.

Article 93 clearly states: "The House of the People shall, as soon as may be, choose two members of the House to be respectively Speaker and Deputy Speaker...."

The phrasing "as soon as may be" implies urgency, and not discretion. The Deputy Speaker's role is not optional; the Constitution places this office on an equal footing with the Speaker in terms of its necessity to the parliamentary structure. Article 94 states that the Deputy Speaker remains in office until they resign, are removed, or cease to be a Member of Parliament.

The intent is clear: the Lok Sabha must never function without a second-in-command, a constitutional safeguard to ensure continuity, stability, and institutional balance.

The roots of this office can be traced back to the colonial period. The position originated in the Central Legislative Assembly under British rule, where it was known as the Deputy President. The first to hold the office was Sachidanand Sinha in 1921. By the time India achieved independence in 1947, the Deputy Speaker had already become an institutional fixture in legislative governance.

Post-Independence, during the Constituent Assembly (Legislative) sessions, a deliberate decision was made to maintain the role even before the Constitution was fully adopted in 1950. The first elected Deputy Speaker of India's Lok Sabha was M.A. Ayyangar, a respected parliamentarian who also served as the acting Speaker following the sudden death of Speaker G.V. Mavalankar in 1956. His appointment during a crisis established a precedent for the Deputy Speaker's importance as a ready and capable replacement.

## Relevance in parliamentary practice

While the Speaker is the presiding authority of the House, no Speaker can physically preside over every session in its entirety. As noted by



**Vinod Bhanu**

is Executive Director of the Centre for Legislative Research and Advocacy (CLRA), New Delhi



**Ravindra Garimella**

is the former Joint Secretary (Legislation), Lok Sabha, and currently Secretary to the Leader of Opposition, Rajya Sabha

That the post remains vacant is a constitutional anomaly and an active sidelining of consensus politics

constitutional expert S.C. Kashyap in *Dada Saheb Mavalankar: Father of Lok Sabha*, the Speaker cannot chair proceedings for hours on end. The Deputy Speaker steps in during such absences, ensuring that proceedings continue without procedural disruption.

But the Deputy Speaker's role extends beyond simply "filling in". They can chair important sessions, preside over specific committees, and even handle sensitive debates that require a neutral and trusted authority. Notably, the Deputy Speaker, like the Speaker, is expected to act impartially once elected, regardless of party affiliation.

Historically, this office has also held symbolic importance in fostering bipartisan respect. A long-standing convention – though not legally binding – has been to offer the post of Deputy Speaker to the Opposition. This not only balanced power within the House but also helped to build trust and cooperation across the aisle. It has been a vital practice in reinforcing the non-partisan ethos that the Speaker's office aims to uphold.

## A growing constitutional vacuum

Despite its clear constitutional basis and historic continuity, the Deputy Speaker's office has remained vacant for the entire term of the 17th Lok Sabha (2019-2024). As of this writing, the 18th Lok Sabha, formed after the 2024 general election, has also yet to elect a Deputy Speaker. This is not a procedural lapse; it is a constitutional anomaly.

Never before in India's parliamentary history has the office remained vacant for such extended periods of time. The Constitution does not prescribe a rigid timeline for the election, but the phrase "as soon as may be" cannot be interpreted as "whenever convenient". The delay – now running into multiple years – raises fundamental questions about adherence to constitutional mandates and respect for parliamentary norms.

Leaving the Deputy Speaker's position vacant undermines the institutional safeguards established by the Constitution. It centralises procedural power solely within the Speaker and the ruling party, eliminating a vital counterbalance. In an emergency, such as the Speaker's resignation, death, or removal, the lack of a designated second-in-command could lead to confusion or even a temporary leadership

vacuum in the House.

The delay also signals a broader disregard for parliamentary conventions – especially the unwritten rule of offering the post to the Opposition. While not mandatory, this practice has historically promoted inclusivity and moderation in parliamentary functioning. Failing to fill the post is not just a passive oversight; it is an active sidelining of consensus politics.

The argument that there is "no urgency" to appoint a Deputy Speaker runs counter to the entire ethos of constitutional democracy. The framers of the Constitution foresaw the importance of redundancy in leadership. Positions such as the Deputy Speaker are not afterthoughts – they are foundational to the system's resilience.

Moreover, restoring the practice of appointing a Deputy Speaker from the Opposition can help rebuild institutional credibility. In an era of increasing polarisation, such a gesture would not only honour democratic convention but also inject a degree of balance into legislative proceedings.

## Need for legislative reform?

The ongoing vacuum raises a larger question: should the constitutional language be tightened to set a mandatory time frame for electing the Deputy Speaker? A specific deadline – for instance, within 60 days of the first sitting of the new Lok Sabha – could close this loophole of delay and warrant compliance.

Alternatively, a statutory mechanism could be introduced to allow the President to initiate the process within a time frame, upon advice from the Prime Minister or the Speaker. Either way, the current ambiguity is untenable in a functioning democracy.

The Office of the Deputy Speaker of the Lok Sabha is neither symbolic nor optional. It is a constitutionally sanctioned position designed to uphold the integrity and the continuity of legislative functioning. Disregarding it violates the Constitution's letter and undermines the spirit of democratic balance.

It is time for Parliament to reaffirm its respect for constitutional norms and institutional integrity. Electing a Deputy Speaker is not just a formality – it is a test of the House's commitment to rule-based governance. India's Parliament must not fail this test any longer.

## Paper 02: Indian Polity

**UPSC Mains Practice Question:** Despite clear constitutional provisions, the Deputy Speaker's office in the Lok Sabha has remained vacant for extended periods. Analyze the constitutional, political, and institutional implications of this vacancy. (250 words)

## Context :

- The position of Deputy Speaker of the Lok Sabha has remained vacant throughout the 17th Lok Sabha (2019–2024) and continues to remain vacant even after the formation of the 18th Lok Sabha.
- This unusual situation raises serious concerns about constitutional compliance and respect for parliamentary conventions.

## Constitutional Provisions:

- **Article 93** mandates that the Lok Sabha must elect a Speaker and Deputy Speaker "as soon as may be," emphasizing urgency, not discretion.
- **Article 94** outlines that the Deputy Speaker holds office until resignation, removal, or disqualification.
- The Deputy Speaker's role is not optional but is integral to the constitutional framework for the functioning of Parliament.

## Historical Evolution:

- **Colonial Origin:** The post evolved from the 'Deputy President' of the Central Legislative Assembly under British rule, first held by Sachidanand Sinha in 1921.
- **Post-Independence Continuity:** Even before the formal adoption of the Constitution in 1950, the role was deliberately retained during Constituent Assembly (Legislative) sessions.
- **Notable Precedent:** M.A. Ayyangar, the first elected Deputy Speaker of Lok Sabha, served as Acting Speaker after G.V. Mavalankar's death, highlighting the Deputy Speaker's critical backup role.

## Role and Importance:

- **Ensuring Continuity:** Since the Speaker cannot preside over every session indefinitely, the Deputy Speaker ensures uninterrupted legislative proceedings.
- **Institutional Safeguard:** Acts as a second-in-command, maintaining stability and balance within parliamentary functioning.
- **Impartial Functioning:** Like the Speaker, the Deputy Speaker is expected to discharge duties impartially, irrespective of party affiliation.
- **Committee Leadership:** Chairs important parliamentary committees and may preside over sensitive debates requiring neutrality.

## Convention of Offering to Opposition:

## Daily News Analysis

- By unwritten convention, the Deputy Speaker's post is traditionally offered to the Opposition to promote bipartisan spirit and parliamentary balance.
- Though not constitutionally binding, this practice has been crucial for fostering trust, inclusivity, and cooperation within the House.

### Concerns Arising from Vacancy:

- **Constitutional Anomaly:** Prolonged vacancy violates the spirit of the phrase "as soon as may be" and undermines constitutional mandates.
- **Power Centralization:** Leaves procedural authority solely in the hands of the Speaker and the ruling party, disturbing the balance of power.
- **Crisis Vulnerability:** In case of an emergency such as the Speaker's resignation or demise, the absence of a designated Deputy can create institutional chaos.
- **Erosion of Democratic Traditions:** Ignoring the convention of offering the post to the Opposition reflects weakening commitment to consensus-based governance.

### Way Forward:

- **Legislative Amendments:** Introduce a clear constitutional timeline, such as mandating election of Deputy Speaker within 60 days of the Lok Sabha's first sitting.
- **Statutory Mechanisms:** Empower the President to initiate the process upon the advice of the Prime Minister or Speaker if the election is delayed.
- **Restoring Conventions:** Reinstating the practice of appointing an Opposition member would strengthen democratic norms and parliamentary credibility.

### Conclusion:

The Office of the Deputy Speaker is not a ceremonial post but a constitutional pillar ensuring resilience and stability in parliamentary functioning. Leaving it vacant reflects not just procedural delay but a deeper erosion of constitutional propriety and democratic ethos. It is imperative for the Parliament to act promptly, reaffirm its commitment to constitutional norms, and elect a Deputy Speaker — not merely as a symbolic act but as a duty towards the Republic.

---