# Today's Prelims Topics

How curiosity-driven research into a worm won 4 Nobels

Context

The **2024 Nobel Prize in Physiology or Medicine** was awarded for discovery of **microRNAs (miRNAs)** and their role in regulating gene expression. This research, conducted using the roundworm **Caenorhabditis elegans (C. elegans)**.

About Caenorhabditis elegans (C. Elegans)

- It is a 1-mm long, transparent nematode commonly used in scientific research.
- It inhabits soil and feeds on microbes, making it easily cultivated in laboratories.
- The adult worm has **959 cells and 302 neurons,** providing a simple model for studying development and neuroscience.
- It is widely used in genetic and developmental biology due to its straightforward anatomy and short lifespan.
- It was the **first multicellular organism to have its full genome sequenced** and **neural wiring mapped.**
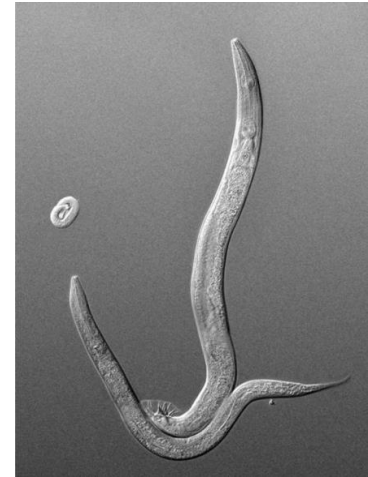
Why is it important for researchers ?

- **Simpler Anatomy:** C. Elegans lack both respiratory and circulatory systems
- **Large-scale production:** It can be produced in large numbers within a short period of time. It grows quickly, **reaching adulthood in 3-5 days after hatching from eggs.**
- **Transparency: I**ts transparency allows scientists to track cell development under a microscope.
- **Self- fertilisation:** It is Hermaphrodite, can produce both eggs and sperms.

Four Researches based on C. Elegans that led to Nobel Prize

- **Genetic Regulation & Programmed Cell Death (2002):**
    - **Sydney Brenner, H. Robert Horvitz and John Sulston** discovered how genes regulate organ development and programmed cell death.
    - Their work revealed the genetic mechanisms that control cell death during development.
- **RNA Interference (2006):**
    - **Andrew Fire and Craig Mello** discovered how double-stranded RNA silences specific genes through RNA interference.
    - This mechanism prevents certain genes from producing proteins.
    - Their research opened doors for therapies targeting gene expression in diseases such as cancer and genetic disorders.
- **Green Fluorescent Protein (2008):**
    - **Osamu Shimomura, Martin Chalfie and Roger Tsien developed the Green Fluorescent Protein (GFP)** to track proteins in living organisms.
    - GFP enabled scientists to visualize cellular processes in real time.
    - It helped to study molecular interactions within living cells.
- **MicroRNAs (2024):**
    - **Victor Ambros and Gary Ruvkun discovered microRNAs (miRNAs)** that regulate gene expression by silencing specific genes.

○ miRNAs control various biological processes, including development and disease regulation.
○ Their research opened new possibilities for diagnostic tools and therapeutic approaches in genetic diseases.

MicroRNA (MiRNA)
● MicroRNAs are short, non-coding RNA molecules that regulate gene expression by targeting mRNA transcripts.
● **Function:** They inhibit the translation of mRNA into proteins, thereby controlling protein production, which is crucial for various biological processes.
● **Process of Protein Production:**
  ○ **Transcription:** DNA is transcribed into mRNA in the nucleus.
  ○ **Translation:** mRNA is translated into proteins at the ribosome with the help of transfer RNA (tRNA).
  ○ **Regulation by miRNA:** After transcription, miRNAs bind to mRNA, inhibiting protein production and adding an extra regulatory layer.

Source:
● **The Hindu - curiosity-driven research**
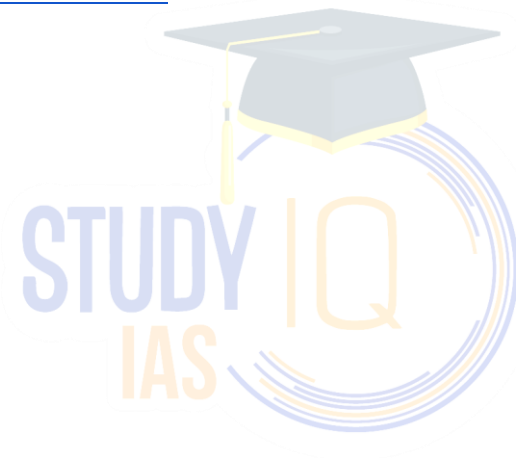
Indonesia joins BRICS bloc as full member

Context

Recently Indonesia was admitted as a full member of the BRICS bloc. Its inclusion was announced by **Brazil (chair for 2025).**

About BRICS

- It is an intergovernmental organization established in **2009**. (1st BRIC Summit- Russia)
- BRICS is an acronym that stands for **Brazil, Russia, India, China, and South Africa.**
  - The acronym "BRICS" was formulated by economist **Jim O'Neill,** of Goldman Sachs.
- **Members**: 11
  - Originally it was just BRIC i.e. Brazil, Russia, India, China.
  - South Africa joined the group in 2010.
  - **Additional members joined in 2023:** Egypt, Iran, United Arab Emirates (UAE), Saudi Arabia and Ethiopia.
  - **Latest addition:** Indonesia
- There is **no formal application process to join BRICS,** but new members must be **unanimously approved** by existing ones.
- BRICS represents **45% of the world's population & 37.3% of world GDP.**
- **Important initiatives of BRICS:**
  - **New Development Bank (NDB):** It was established during the **6th BRICS Summit held in Fortaleza (2014)**.
  - **Contingent Reserve Arrangement (CRA):** It is a financial safety net to provide short-term liquidity support to member countries facing balance of payments difficulties. It was established in **2015.**

UPSC PYQ

Q. The 'Fortaleza Declaration', recently in the news, is related to the affairs of? **(2015)**

(a) ASEAN
(b) BRICS
(c) OECD
(d) WTO

Ans: B

Source:

- **Indian Express - Indonesia joins BRICS bloc as full member**

SC to hear same-sex marriage review pleas

Context
A new five-judge Bench of the Supreme Court, headed by Justice B.R. Gavai, is scheduled to hear petitions seeking a review of the October 2023 judgment that **declined to legalize same-sex marriage.**

About Same Sex Marriage
- **Same-sex marriage** is the marriage of two people of the same sex.
- Same-sex marriage is not legally recognized in India, and the existing marriage laws, such as the **Hindu Marriage Act and the Special Marriage Act,** only recognize marriages between a man and a woman.
  - However, it should be noted that, **Special Marriage Act uses gender neutral terms** as its **Section 5 s**ays **"a marriage between any two persons** may be solemnized under this Act".
  - Similarly **Section 5 of the Hindu Marriage Act** mentions marriage between "any two Hindus".
- Presently **34 countries** worldwide legally recognize marriage between same-sex couples.
  - Latest country to legalise - **Andorra.**

Curative Petition
- **Purpose:** To seek a re-examination of a judgement based on specific grounds like errors of law or fact.
- **Origin:** Explicitly provided under **Article 137** of the Constitution.
- **Filling Timeline:** Must be filed **within 30 days** of the judgement.
- **Who can File:** Any aggrieved party can file. It must specify grounds for review.
- It is usually decided by the **same bench** that delivered the original judgement **without oral arguments.**

Other Types of Petitions
- **Special Leave Petition (SLP):** Under **Article 136,** this petition allows any person to seek special permission to appeal against any judgement or order from any court or tribunal in India.
- **Writ Petition:** Filed under **Article 32,** it seeks enforcement of fundamental rights.
- **Mercy Petition:** This is filed under **Article 72** by convicts seeking clemency from the President of India after exhausting all legal remedies including review and curative petitions.
- **Curative Petition:** To address fundamental injustices after all other remedies have been exhausted**.** It evolved from judicial interpretation in the case of **Rupa Ashok Hurra vs. Ashok Hurra (2002).** It requires **certification by a senior advocate** and proof of violation of natural justice principles.

Source:
- **The Hindu - SC to hear same-sex marriage review pleas**

Top court slams delay in appointing Information Commissioners

Context
The Supreme Court has criticised Centre and States for delays in appointing Information Commissioners under RTI Act.

About Central Information Commission (CIC)
- It works as an apex body to provide access to information in a timely manner. It was constituted on **12th October 2005 under Right to Information Act, 2005.**
- **Composition:** A Chief Information Commissioner & Not more than **10** Information Commissioners (ICs).
- **Appointment:** By the **President** on the recommendations of a Committee consisting of:
  - Prime Minister (Chairperson of the Committee)
  - Leader of Opposition in Lok Sabha
  - Union Cabinet Minister nominated by the Prime Minister.
- **Tenure:** 3 years or 65 years whichever is earlier. Not eligible for re-appointment.
- **Qualifications:** As per Right to Information Act, 2005 The Chief IC and the other ICs should be persons of eminence in public life with wide knowledge and experience in law, science and technology, social service, journalism, mass media or administration and governance.

Challenges in functioning of Commission
- **Dilution of independence:**
  - Earlier under RTI Act 2005, the members of the Central Information Commission had **fixed tenure of 5 years** or age of 65 years, whichever is earlier, and their salaries and allowances were **same as members of Election Commission of India.**
  - However, the **RTI Amendment Act, 2019** diluted these provisions and left them at the discretion of the Central Government.
- **Irregularities in appointment:** Commission is working below its full sanctioned strength. Currently there are **only 2 ICs** in the Commission.
- **Pendency of Cases:** Around 20, 000 cases are pending before CIC.
- **Lack of transparency in appointment:** the Act does not provide for any specific qualifications for the persons to be appointed in CIC.

Source:
- **The Hindu - delay in appointing Information Commissioners**

Sonobuoys

Context
India and the United States have announced a significant collaboration to co-produce U.S. sonobuoys.

About Sonobuoys
- Sonobuoys are compact, expendable acoustic sensors used for **anti-submarine warfare (ASW)** and **undersea domain awareness (UDA).**
- They play an important role in detecting, tracking and monitoring submarines and underwater activities in deep seas and oceans.
- **Key Features of Sonobuoys:**
  - **Size:** Small, cylindrical and lightweight for easy deployment.
  - **Deployment:** Launched from aircraft, helicopters or ships.
  - **Components:**
    - **Hydrophone:** Captures underwater sound signals.
    - **Radio Transmitter:** Sends data to surface vessels or aircraft.
    - **Battery:** Provides power for limited operational duration.
- **Types of Sonobuoys**
  - **Passive Sonobuoys:** Listen to underwater sounds without emitting signals. Detect noise from submarines (e.g., engine sounds, propeller noise).
  - **Active Sonobuoys:** Emit sound waves (pings) and listen for echoes. It is useful for precise location tracking of submarines.
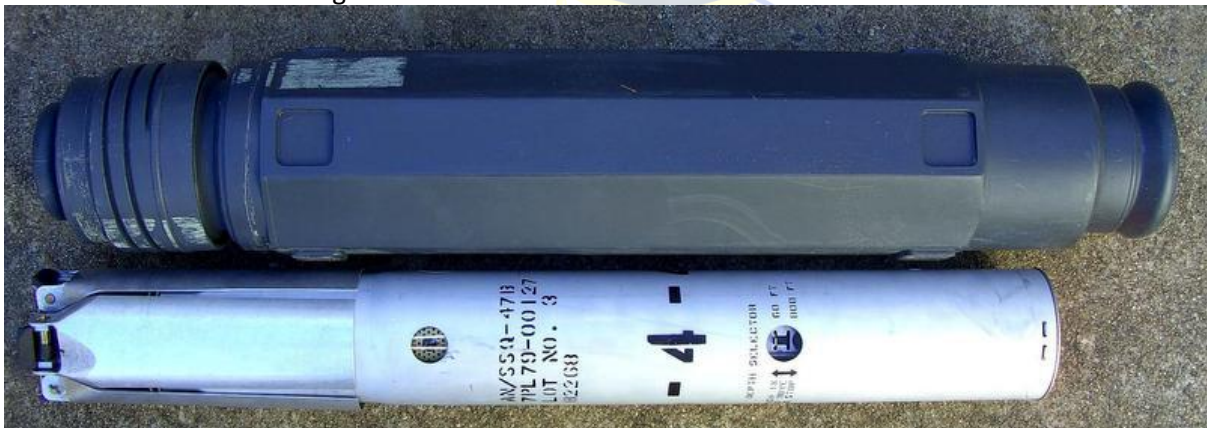
Source:
- **The Hindu - India, U.S. to jointly manufacture interoperable sonobuoys for Navy**

How climate change is affecting Earth's water cycle

Context
The 2024 Global Water Monitor Report, prepared by an international team of researchers, highlights the significant effects of climate change on the Earth's water cycle.

About Water Cycle
- It is the continuous movement of water in its various forms- **solid, liquid and gas - above and below the Earth's surface.**
- **Key Processes:**
  - **Evaporation:** Water transforms into vapour due to the Sun's heat.
  - **Transpiration:** Plants release water vapour from soil.
  - **Condensation & Precipitation:** Water vapour forms clouds and falls as rain or snow.
  - **Return to Earth:** Water enters oceans, lakes, rivers, glaciers or soil, restarting the cycle.
- **Importance of water cycle:**
  - Provides water for all living organisms.
  - Regulates weather patterns.
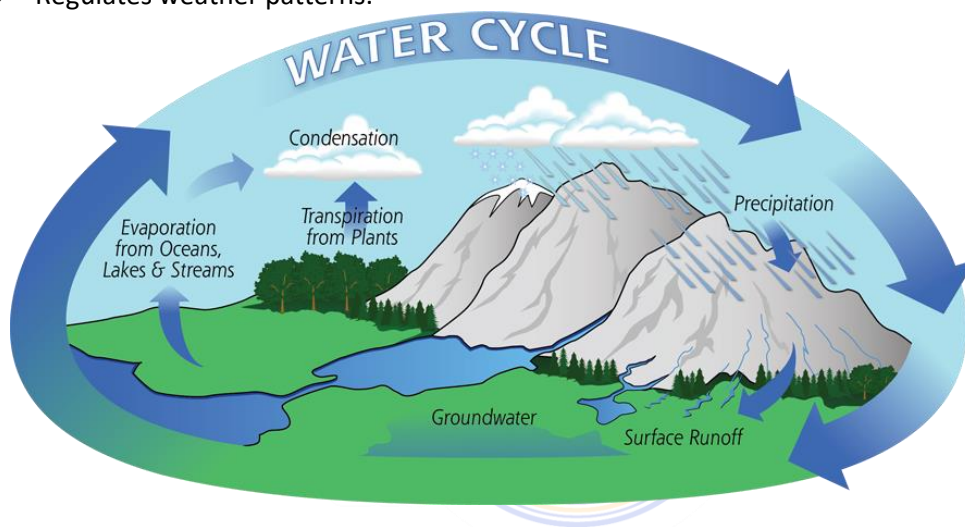
Impact of Climate Change on the Water Cycle
- **Amplification of the Cycle:**
  - Rising temperatures cause more evaporation, intensifying the water cycle.
  - Warmer air holds **7% more moisture for every 1°C increase in temperature**.
- **Effects:**
  - **Increased Precipitation:** Heavier rainfall over short periods, resulting in flash floods, prolonged flooding and damage to infrastructure.
  - **Droughts and Dry Soils:** Higher temperatures cause more water to evaporate from the soil, leaving it dry. When rain eventually falls, it struggles to penetrate the hardened leading to **rapid runoff** instead of absorption.
  - **Erratic Patterns:** The global water cycle becomes unpredictable as the planet warms.

Source:
- **Indian Express - Earth's water cycle**

HAL's indigenous military helicopter - Repeated crashes

Context

An Advanced Light Helicopter (ALH) Mark-III of the Indian Coast Guard crashed during a training sortie, killing all three on board. This marks the second fatal crash of the ALH Mark-III in last 4 months

About Advanced Light Helicopters(ALH) Dhruv

- It is a multi-role and multi-mission light utility helicopter for both military and civil operators.
- It is developed **indigenously by Hindustan Aeronautics Limited (HAL).**
- The ALH choppers are operated by all 3 Indian defense forces along with the Indian Coast Guard.
- It is certified by the **Directorate General of Civil Aviation (DGCA)**
- It was designed to replace aging helicopters like **Chetak** and **Cheetah** in the Indian Armed Forces.

Safety Concerns Raised

- **Investigation and Grounding:** Board of Inquiry have been constituted to investigate the crashes, focusing on flying controls and transmission systems. The **entire fleet of around 300 ALH helicopters has been grounded** for safety audits.
- **Design Issues:** Previous crashes highlighted flaws like weaknesses in the booster control rods, affecting control. Hindustan Aeronautics Ltd (HAL) has initiated corrective measures, including replacing older components with more durable materials.
- **Call for Independent Review:** Concerns over the ALH's safety record have prompted calls for independent inquiries by military aviation veterans.

Source:

- **Indian Express - HAL's ALH**

Sex-Specific Brain Differences in Newborns

Context

A recent study published in the **Biology of Sex Differences** journal has examined the brain differences between newborn male and female infants.

Differences Brain Size and Composition

- **Boys:**
    - **Larger brain volumes**: On average, male infants had **significantly larger intracranial and total brain volumes**, even after controlling for birth weight.
    - **More white matter**: Boys had more **white matter**.
- **Girls**:
    - **More grey matter**: Female infants showed **larger volumes of grey matter** in areas linked to **learning**, **speech** and **cognition**, such as memory and emotional regulation.
    - **Regional differences**: Grey matter was particularly larger in regions related to **memory** and **emotion regulation**.
- **Significance of White and Grey Matter:**
    - **White matter** consists of long nerve fibers that facilitate communication within the brain.
    - **Grey matter** is critical for cognition, memory and learning.
- **Functional Implications:**
    - **Boys' Brains**: Larger volumes of white matter in areas involved in **sensory processing** and **motor control**, reflecting more developed capabilities in these areas at birth.
    - **Girls' Brains**: Larger grey matter volumes in regions crucial for **learning**, **speech**, and **cognitive processes**, suggests a possible advantage in early development related to memory and emotions.

- This study has proved that **Sex-specific brain differences** are already present in **the earliest days of life**, **i.e.** these are inherent to brain development before external environmental factors come into play.

Source:

- **Indian Express - girl infants have more grey matter**
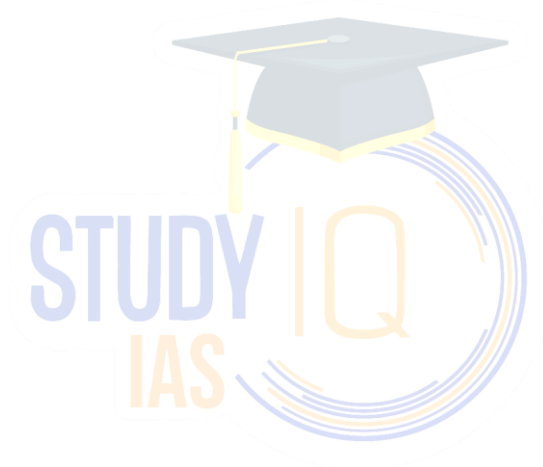
Places in News

Kandla/ Deendayal Port

- The Ministry of Ports, Shipping & Waterways has announced 2 major investments at the Kandla port
  - A mega ship building and repair project at an investment of ₹30,000 crore.
  - A new cargo terminal outside Kandla Creek for ₹27,000 crore, which will add 135 mtpa to the port's capacity.

- **Location:** Kandla Creek in the Kachchh district of Gujarat.
- It is one of India's largest all-weather ports and serves as a gateway port for Punjab, Haryana, J&K.
- **Major Ports in India (12):** Chennai, Cochin, Deendayal (Kandla), Jawaharlal Nehru (Nhava Sheva), Kolkata, Mormugao, Mumbai, New Mangalore, Paradip, V. O. Chidambaranar (Tuticorin),Visakhapatnam and Kamarajar Port Limited.
  - **13th -Vadhavn Port (under construction).**

Source:
- **The Hindu - Kandla port to get ship building facility**

News in Shorts

Bharatpol Portal

- Bharatpol stands for broadcast hub for assistance and real-time action against transnational crimes via international police cooperation.
- It is developed by the **Central Bureau of Investigation (CBI).**
- It will allow central and state agencies to easily connect with the **Interpol** and speed up their investigations.

Interpol - International Criminal Police Organisation.

- Interpol is an international police organisation made up of **196** member countries. It does **not work under the UN**. **(Established - 1923, HQ - Lyon, France).**
- It is an **information-sharing network,** providing a way for national police forces to co-operate effectively and tackle international crime ranging from human trafficking and terrorism to money laundering etc.

Source:

- **The Hindu - Bharatpol to aid in nabbing fugitive criminals**

ID Tokenisation to Verify Minors' Age Under New Data Rules

- The Union Electronics and Information Technology Minister has announced a **new child verification system** as part of the Digital Personal Data Protection Rules.
- This system aims to ensure minors cannot use social media platforms or access age-restricted online services without parental consent.
- **Tokenisation of Identity Documents:** Tokenisation creates a digital representation of data without exposing the full identity information.
  - **Advantages:**
    - Platforms can verify users without storing or accessing complete identity documents.
    - Tokens may be deleted after use.

Source:

- **The Hindu - ID tokenisation**

Editorial Summary

Latest Guidelines of the University Grants Commission (UGC)

Context
- The University Grants Commission (UGC) has introduced an accelerated degree programme and an extended degree programme for undergraduate students.
- This will allow them to complete their degrees either earlier or later than the standard duration.

Advantages of Accelerated and Extended Degree Programmes
- **Flexibility in Learning:** Provides students the autonomy to tailor their academic paths to suit personal and professional goals.
  - Accelerated programmes allow early entry into the workforce or further studies.
- **Interdisciplinary Learning:** Extended programmes offer students time to explore diverse subjects, undertake internships, or engage in research, aligning with the National Education Policy (NEP) 2020's emphasis on multidisciplinary education.
- **Global Competitiveness:** Aligns Indian higher education with international standards, facilitating student mobility and making Indian degrees more globally recognized.
- **Cost and Time Efficiency:** Accelerated programmes reduce the cost of education by cutting tuition fees and living expenses, which benefits financially constrained students.
- **Skill Development:** Encourages the acquisition of soft skills, creative thinking, and practical expertise through internships and project work during extended programmes.
- **Enhanced Employability:** Offers flexibility to gain real-world experience while studying, potentially leading to better career outcomes.

Challenges of Accelerated and Extended Degree Programmes
- **Curriculum Depth and Rigor:** Compressing a curriculum in an accelerated format may compromise the quality of education, especially in technical disciplines like engineering.
- **Lack of Academic Urgency:** Extended programmes may demotivate students to complete their studies in a reasonable timeframe, diminishing the value of the degree.
- **Financial Burden:** Longer duration programmes could increase costs, discouraging students from economically weaker backgrounds.
- **Institutional Readiness:** Universities face challenges in restructuring curricula, implementing credit systems, and adapting to the administrative complexity of such reforms.
- **Digital Divide:** A shift towards digitalisation in education may marginalize students from underprivileged backgrounds with limited access to technology.
- **Faculty Training:** Teachers will need professional development to adapt to flexible, interdisciplinary pedagogical models.
- **Equity Concerns:** Students from rural and marginalized backgrounds may struggle to navigate the flexible structure without adequate support, risking higher dropout rates.

Future Outlook
- **Strategic Planning:** Robust curriculum design ensuring educational depth in accelerated programmes and meaningful use of time in extended programmes will be critical.
- **Investment in Infrastructure:** Adequate funding for digital infrastructure, administrative systems, and faculty recruitment will be essential for a smooth transition.
- **Capacity Building for Educators:** Continuous professional development and training for educators to handle flexible and interdisciplinary models effectively.
- **Inclusion of Marginalized Students:** Provision of scholarships, mentoring, and digital resources to bridge the equity gap.

- **Enhanced Industry Collaboration:** Strengthening ties with industries to create relevant internships, research opportunities, and skill development initiatives for students.
- **Global Integration:** Emphasis on aligning the Indian education system with international benchmarks will ensure better recognition of Indian degrees and enhance global mobility.
- **Monitoring and Evaluation:** Establish mechanisms to track the impact of these programmes on learning outcomes, employability, and student satisfaction.

Conclusion

With strategic implementation and a commitment to inclusivity, these initiatives could transform Indian higher education, making it more student-centric, dynamic, and globally aligned, ultimately contributing to India's aspiration of becoming a developed nation by 2047.

Source: The Hindu: More flexibility, but also greater challenges
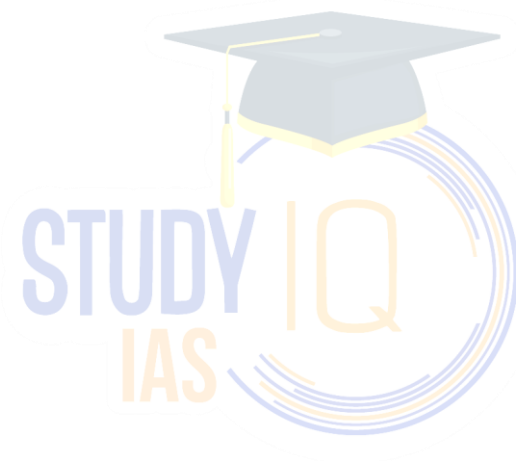
Recent Visit of US National Security Advisor

Context
The US National Security Advisor Jake Sullivan recently visited India.

Key Points Highlighted by Jake Sullivan's Recent Visit to India
- **Strengthening the Strategic Partnership:** Acknowledged the Biden Administration's expansive commitment to advancing the India-US strategic partnership, ensuring it remains resilient against unanticipated crises.
- **Deepening Advanced Technology Collaboration:** Focused on areas like AI, semiconductors, space, and biotechnology under the **Initiative on Critical and Emerging Technologies (iCET)**, which promotes techno-industrial collaboration involving governments, industries, and research institutions.
- **Realignment of Global Economy:** Emphasized reducing global dependence on China by building technology partnerships with allies, contributing to regional balance in the Indo-Pacific.
- **Lifting Restrictions on Space Cooperation:** Announced the removal of restrictions on civilian space cooperation and continued efforts to delist key Indian atomic energy centres from the US blacklist to enable civilian nuclear energy collaboration.
- **Focus on Nuclear Energy:** Highlighted the potential of nuclear energy to meet the clean energy demands of data centres powering AI, urging regulatory reforms in India to facilitate international investments.

India's Nuclear Journey: Progress
- **Early Cooperation and Challenges:**
  - **Initial Collaboration:** Post-independence, the US supported India's nuclear and space programs.
    - Key contributions included modernizing agriculture (Green Revolution) and strengthening scientific education.
  - **Non-Proliferation Challenges (1970s–1990s):** The US imposed stringent non-proliferation laws, sanctioning India for staying non-nuclear.
    - Bilateral nuclear cooperation collapsed during this period.
- **Breakthrough and Subsequent Progress:**
  - **India-US Civil Nuclear Deal (2005-08):** Negotiated by George W. Bush and Manmohan Singh, it resolved key nuclear disputes.
    - Marked a paradigm shift in bilateral relations, enabling peaceful nuclear energy cooperation.
  - **Successive Administrations:** Presidents Obama, Trump, and Biden built upon the nuclear deal, paving the way for advanced technology and energy collaboration.

Hurdles in Realizing Full Potential
- **Regulatory Barriers in India:** The **Civil Liability for Nuclear Damage Act (2010)** dissuaded foreign companies due to its stringent liability provisions.
  - No international nuclear power plants were established in India, except by Russia, even two decades after the deal.
- **Blacklisting of Indian Atomic Centres:** Persistent US restrictions on civilian nuclear cooperation with key Indian facilities hindered progress.
- **Economic Viability:** High costs and lack of investment limited India's ability to harness nuclear energy fully.

Way Forward

- **Regulatory Reforms:** Modify liability laws to attract investments from US and other global players.
- **Boosting Infrastructure:** Invest in domestic manufacturing and research in nuclear technology to reduce dependency on imports.
- **Leveraging AI's Energy Demands:** Capitalize on nuclear energy's resurgence driven by clean energy needs for AI-driven data centres.
- **Strengthening US-India Cooperation:** Ensure sustained diplomatic engagement to deepen civilian nuclear collaboration and resolve pending restrictions.
- **Public-Private Partnerships:** Encourage collaborations between government and industry to develop scalable, economically viable nuclear solutions.
- **Commitment to Clean Energy Goals:** Align nuclear energy development with India's renewable energy transition to meet climate goals and energy security needs.

Source: Indian Express: Atomic Power Equation
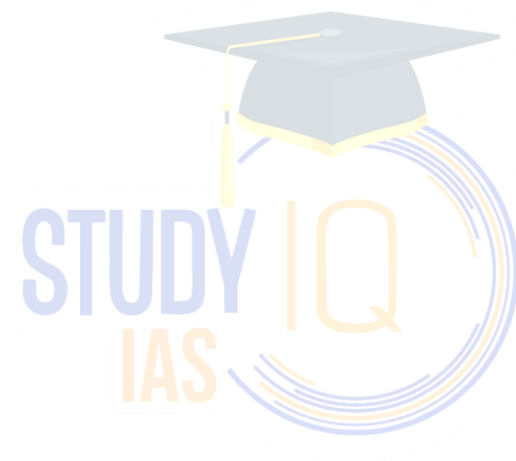
Detailed Coverage

The imperilled life of the district journalist in India

Context

The brutal murder of an independent young journalist, Mukesh Chandrakar, in Chhattisgarh, has once again highlighted the threats to life and the precarious nature of journalism at the district and mofussil levels.

Importance of Journalists

- **Voice for the Voiceless:** Journalists bring to light "unseen and unheard" stories from marginalized and local communities.
  - They raise issues of deprivation, suffering, and corruption, giving a platform to the struggles of the underprivileged.
- **Transparency and Accountability:** Investigative journalism ensures checks and balances by exposing corruption and malpractice in developmental projects and welfare schemes.
  - Acts as a watchdog of democracy, holding powerful entities accountable.
- **Local Relevance and Community Impact:** Grassroots journalists report on local issues, civic problems, and developmental challenges, often ignored by mainstream media.
  - They bridge the gap between policymakers and the grassroots.
- **Enabler of Regional Language Journalism:** Stringers and retainers play a crucial role in providing content for regional and local media outlets, ensuring diversity in news coverage.
- **Empowerment through Independent Journalism:** Independent platforms like social media, YouTube, and digital news sites amplify investigative stories, reaching a broader audience.
  - These platforms help bypass the limitations of mainstream media influenced by advertisers and state alignments.
- **Strengthening Democracy:** By uncovering the abuse of power and fostering an informed citizenry, journalists reinforce democratic institutions and processes.

Institutions for Protecting Press Freedom in India

Constitutional and Legal Framework

● **Constitution**
  ○ **Article 19(1)(a):** Guarantees the right to freedom of speech and expression, which forms the basis for press freedom.
  ○ **Article 19(2):** Allows reasonable restrictions on freedom of speech for issues such as sovereignty, public order, and morality.

● **Judiciary:** Courts play a critical role in interpreting laws and protecting press freedom against arbitrary restrictions.
  ○ Landmark cases like *R. Rajagopal v. State of Tamil Nadu* (1994) affirm the right to publish without prior restraint.

● **Parliament and State Legislatures:** Responsible for enacting laws to protect press freedom and ensuring that any restrictions are reasonable and justifiable.

Government and Regulatory Bodies

● **Press Council of India (PCI):** A statutory body established under the Press Council Act, 1978.
  ○ Promotes press ethics, prevents undue interference, and investigates complaints related to press freedom violations.
  ○ Limited to print media, and its recommendations are advisory, not enforceable.

● **Information and Broadcasting Ministry (I&B Ministry):** Regulates broadcast media, including television and radio.
  ○ Ensures adherence to content standards and oversees licensing for channels.

● **Cyber Crime Cells:** Protect journalists against online harassment and abuse, which have become common threats in digital journalism.

Law Enforcement and Oversight Bodies

● **National Human Rights Commission (NHRC):** Addresses cases where journalists' rights are violated, ensuring protection against state excesses.

● **State Human Rights Commissions (SHRCs):** Operates at the state level to address localized violations against journalists.

● **Law Enforcement Agencies:** Police and investigative agencies are tasked with protecting journalists and investigating crimes against them, including threats and attacks.

Civil Society

● **Media Associations:** Organizations like the **Editors Guild of India, Indian Women's Press Corps**, and others advocate for press freedom and raise concerns about threats to journalists.

● **Civil Society Groups:** Groups such as the **Committee to Protect Journalists (CPJ) and Reporters Without Borders** monitor press freedom violations and provide global visibility to cases of persecution.

International Frameworks

● **UNESCO:** Promotes press freedom through global campaigns and guidelines.
  ○ Observes *World Press Freedom Day* annually on May 3 to raise awareness.

● **United Nations Human Rights Council (UNHRC):** Monitors violations of press freedom globally and pressures governments to uphold journalistic rights.

● **Global Index Monitoring:** *Reporters Without Borders* publishes the World Press Freedom Index, evaluating India's performance and highlighting areas for improvement.

Challenges or Threats Faced by Journalists

● **Physical Threats and Violence:** Journalists face threats, attacks, and even murder, as seen in the cases of Mukesh Chandrakar and Umesh Dobhal.
  ○ They are targeted for exposing the nexus of politicians, contractors, and criminals.

Number of journalists attacked in India between 1992 and 2022

● **Killed – motive confirmed** ● **Imprisoned**
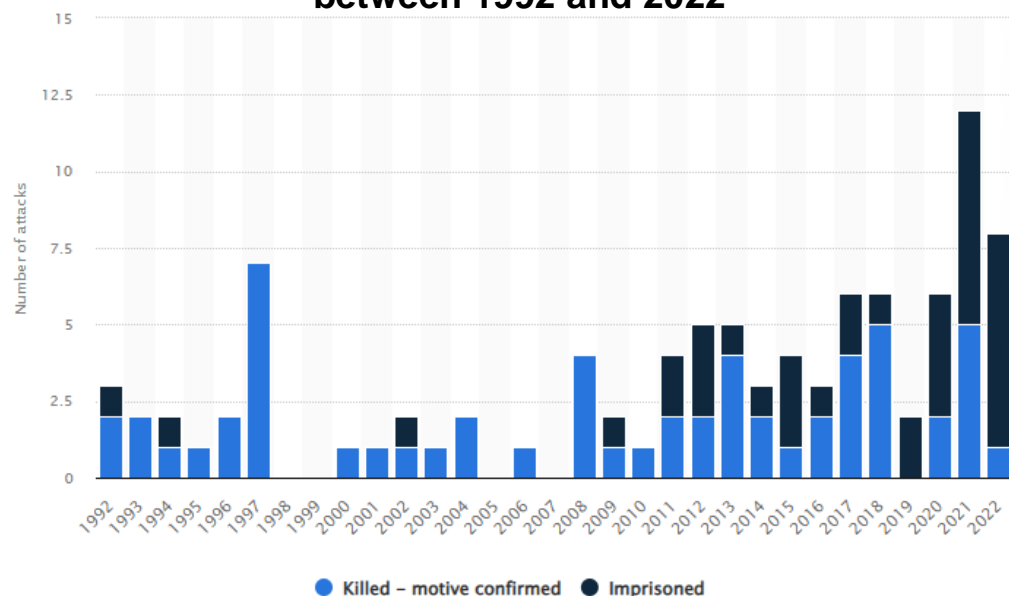
- **Weak Legal Protections:** Despite laws like the Chhattisgarh Protection of Media Persons Act, enforcement is poor, leaving journalists vulnerable.
  - Legal mechanisms often fail to deter violence against journalists.
- **Precarious Working Conditions:** Many journalists work without job security, receive meager salaries, and face hostile work environments.
  - Lack of institutional support makes them easy targets for intimidation.
- **Political and Economic Pressure:** Media houses face pressure from advertisers, local administrations, and state governments, reducing space for critical reporting.
  - Journalists are often forced into self-censorship due to these influences.
- **Online Harassment and Surveillance:** Independent journalists using digital platforms face trolling, abuse, and sometimes digital surveillance.
  - This adds to their physical and mental stress.
- **Impunity for Attackers:** Attackers of journalists often go unpunished, fostering a culture of fear and discouraging investigative reporting.
- **Lack of Recognition and Support:** Grassroots journalists rarely receive credit for their contributions, making them feel isolated and undervalued.
- **Decline in Press Freedom:** Increased state control and alignment of media outlets with vested interests undermine journalistic independence.
  - **E.g.**, In the 2024 World Press Freedom Index, India ranked **159 out of 180 countries.**

Way Forward
- Strengthen enforcement of existing legal protections.
- Improve working conditions and provide institutional support for grassroots journalists.
- Encourage independent journalism through funding, training, and recognition.
- Build robust mechanisms to tackle threats, both physical and digital, ensuring press freedom and journalist safety.

Sources:
- **The Hindu: The imperilled life of the district journalist in India**
- **Indian Express: Death of a Journalist**