

Today's Prelims Topics

Appointment of RBI Governor

Context

The Centre announced the appointment of Revenue Secretary Sanjay Malhotra as the 26th Governor of the Reserve Bank of India.

What is the Process of Appointment Of Governor?

- The governor is appointed as per **Section 8 (1) (a) of the RBI Act, 1934**.
 - The section states that a Governor and not more than four Deputy Governors to be appointed by the Central Government.
- **Appointment Process:**
 1. **Recommendation by the Financial Sector Regulatory Appointments Search Committee (FSRASC):** The committee reviews potential candidates and recommends a name for appointment.
 - It consists of Cabinet Secretary, current RBI Governor, Financial Services Secretary and two independent members.
 2. **Approval:** The shortlist is submitted to the **Appointments Committee of the Cabinet (ACC), chaired by the Prime Minister**.
 - The ACC selects and approves the final candidate.

Tenure of the RBI Governor

- The **RBI Act, 1934**, under **Section 8(4)**, specifies that the term of office for the Governor and Deputy Governors is up to **5 years**.
- The Central Government has the discretion to:
 - **Appoint** the Governor for a term not exceeding 5 years.
 - **Renew or extend** the term based on performance and other considerations.
- **Recent Trend:** Although the maximum term is 5 years, recent RBI Governors have typically been appointed for an **initial term of 3 years** with the possibility of extension.
 - **Examples:**
 - **Shaktikanta Das** was appointed in December 2018 for 3 years, and his tenure was extended for another 3 years in 2021, bringing his total term to 6 years.
 - **Raghuram Rajan** served a full 3-year term from 2013 to 2016.

Source: [The Hindu: Union govt. names Sanjay Malhotra as RBI Governor](#)

Tungsten

Context

The Tamil Nadu Legislative Assembly unanimously adopted a special resolution urging the Union government to immediately **cancel the tungsten mining rights** granted to Hindustan Zinc Limited in Madurai district.

About Tungsten (or Wolfram)

- **Symbol:** W
- **Atomic Number:** 74
- **Appearance:** A shiny, silvery-white metal.
- **Ores:** Scheelite and Wolframite.
- **Unique Properties:**
 - **High Melting Point:** Highest melting point of all metals at **3,422°C (6,192°F)**.
 - **High Density:** Density of **19.3 g/cm³**, comparable to gold.
 - **Hardness:** Very hard, especially when alloyed with other metals (measured as **7.5 on the Mohs scale**).
 - **Excellent Thermal and Electrical Conductivity:** High resistance to thermal expansion.
 - **Corrosion Resistance:** Resistant to oxidation and most acids.
 - **High Tensile Strength:** Retains strength at high temperatures.
 - **Low Vapor Pressure:** Does not vaporize easily, even at high temperatures.

Do you Know?

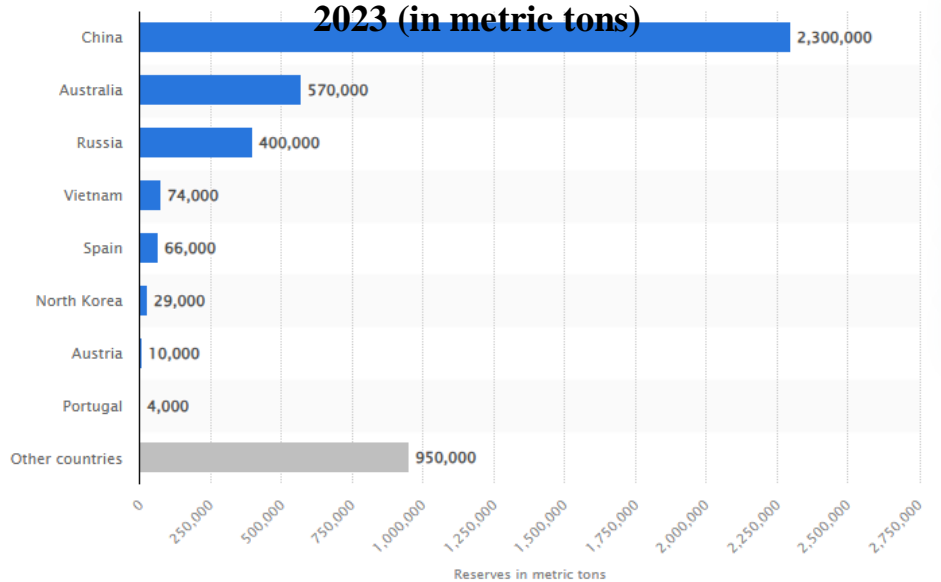
- The Mohs scale is a qualitative scale that measures the scratch resistance of minerals on a scale of 1 to 10.
- **Lowest Ranking (Softest):**
 - **Talc** – Ranked **1**
 - Talc is easily scratched and feels greasy.
 - Used in talcum powder and as a lubricant.
- **Highest Ranking (Hardest):**
 - **Diamond** – Ranked **10**
 - Diamond is the hardest naturally occurring material.
 - Can scratch all other minerals.
 - Used in cutting tools, abrasives, and jewelry.

Real-World Applications of Tungsten

- **Electronics and Electrical Industry:**
 - **Filaments** in incandescent and halogen bulbs due to its high melting point.
 - **Electrodes** in gas tungsten arc welding (GTAW) due to its high conductivity.
 - **Semiconductors** and **X-ray tubes** because of its ability to withstand heat.
- **Aerospace and Defense:**
 - Used in **high-speed aircraft, missiles, and rocket engine nozzles** for its heat resistance.
 - **Armor-piercing projectiles** and **radiation shielding** due to its high density.
- **Manufacturing and Machining:** **Tungsten carbide (WC)**, an incredibly hard compound, is used in:
 - Cutting tools, drills, and milling instruments.
 - Mining tools, wear-resistant parts, and abrasives.
- **Medical Sector:**
 - **Radiation shielding** in medical imaging (X-rays, CT scans).
 - **Medical electrodes** in surgical instruments.
- **Jewelry:** **Tungsten carbide rings** and accessories due to their scratch resistance and durability.

- **Automotive:**
 - **High-performance engines and braking systems.**
 - **Counterweights** for balancing vehicles.
- **Chemical Industry: Catalysts** in chemical reactions and petroleum refining.
- **Sports and Recreation: Fishing weights, darts, and golf club heads** due to its density and durability.

Leading countries based on reserves of tungsten worldwide in 2023 (in metric tons)



Fact

- In India, the total reserves of tungsten have been estimated to be 87.39 million tonnes.
- Main reserve at Degana, Rajasthan.
- Tungsten resources in India are mainly distributed in Karnataka (42%), Rajasthan (27%), Andhra Pradesh (17%), and Maharashtra (9%).
- The remaining 5% of resources are in Haryana, Tamil Nadu, Uttarakhand, and West Bengal.
- Tungsten is one of the 30 critical minerals in India.

UPSC PYQ

Q. Consider the following minerals: (2020)

1. Bentonite
2. Chromite
3. Kyanite
4. Sillimanite

In India, which of the above is/are officially designated as major minerals?

- a) 1 and 2 only
- b) 4 only
- c) 1 and 3 only
- d) 2, 3 and 4 only

Ans: D

Source: [The Hindu: T.N. Assembly adopts resolution against tungsten mining in State](#)

Removal Of Vice President

Context

Opposition parties in the INDIA bloc have decided to move a notice to remove Chairman of the Rajya Sabha Jagdeep Dhankhar from his office.

Process of Removal

- **Article 67(b):** This article provides the constitutional basis for the removal of the Vice-President of India.
- **Resolution for Removal:**
 - The Vice-President can be removed by a resolution passed by a majority of all the then members of the Rajya Sabha (this type of majority is also called '**effective majority**')
 - Such a resolution passed by the Rajya Sabha needs to be agreed to by the Lok Sabha.
- **Notice:** A resolution for removal of the Vice-President can be moved only after giving a notice of **14 days in advance to the incumbent vice-president.**

Facts

- The Vice President can also resign by submitting a resignation letter to **the President of India**, which takes effect upon acceptance.
- **Article 92:** The Chairman or Deputy Chairman **cannot preside over** a Council of States sitting while a resolution to remove them from office is being considered.
 - However, the Chairman **can speak and participate** in the proceedings, but **cannot vote** on the resolution.
- An effective majority is a majority of more than 50% of the effective strength of a house.

Note

- A formal impeachment process as prescribed for the President is not required for removal of the Vice-President.
- Further, **no grounds for removal of Vice-President are mentioned in the Constitution.**
- The process begins with a resolution that must be introduced **only in the Rajya Sabha** (the Upper House of Parliament) to remove the Vice President.

UPSC PYQ

Q. Consider the following statements: **(2013)**

1. The Chairman and the Deputy Chairman of the Rajya Sabha are not the members of that House.
2. While the nominated members of the two Houses of the Parliament have no voting right in the presidential election, they have the right to vote in the election of the Vice President.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Answer: B

Source: [The Hindu: Opposition to move notice to remove Vice-President](#)

SC grants permanent commission to woman Army officer

Context

The Supreme Court exercised its extraordinary powers under **Article 142 of the Constitution** to grant permanent commission to a woman Army officer with a distinguished service record who was wrongly excluded from the consideration when other similarly placed officers were given the benefit.

Article 142 of Indian Constitution

- **Empowers the Supreme Court:** Article 142 authorizes the Supreme Court to issue any decree or order required to ensure "**complete justice**" in cases before it.
 - These decrees or orders are binding and enforceable across the entire territory of India.
- **Goes Beyond Legal Constraints:** The provision allows the Court to transcend existing laws or statutes to deliver justice.
 - This enables the Court to perform roles that may overlap with **executive or legislative functions** when necessary.
- **Related Constitutional Provisions:** Article 142 is supported by other provisions such as:
 - **Article 32:** Provides the right to constitutional remedies.
 - **Article 141:** Mandates all courts in India to follow the Supreme Court's decisions.
 - **Article 136:** Allows for Special Leave Petitions (SLPs).
 - Together, these articles form the basis for **judicial activism**, allowing the Supreme Court to occasionally override legislation to achieve complete justice.
- **Role in Public Interest Cases:** Article 142 empowers the Court to take action in matters involving **public interest, fundamental rights, human rights, and constitutional values**.
 - This reinforces the Supreme Court's role as the **guardian of the Constitution**, ensuring protection against rights violations.

Other Instances Where SC Invoked Article 142

- **Overturing the Post of Mayor of the Chandigarh Municipal Corporation (2024):** The Supreme Court invoked **Article 142** in the **Chandigarh mayoral election** to uphold the integrity of the electoral process.
 - The presiding officer had wrongfully invalidated **eight votes** favoring the opponent, leading to an incorrect declaration of the winner.
- **Ayodhya Ram Janmabhoomi-Babri Masjid Case (2019):** The Supreme Court invoked Article 142 to allot the disputed land for the construction of a Ram Temple and ordered a separate 5-acre plot for the Muslim community to build a mosque.
- **Taj Mahal Conservation (1996):** The Court invoked Article 142 to order the relocation of industries and implement measures to protect the monument.
- **Union Carbide Corporation vs Union of India (1991):** The Supreme Court ordered the Union Carbide Corporation to pay \$470 million in compensation to the victims of Bhopal Gas Tragedy (1984).
 - The court highlighted that its powers under Article 142 allowed it to provide remedies beyond the limitations of existing laws.

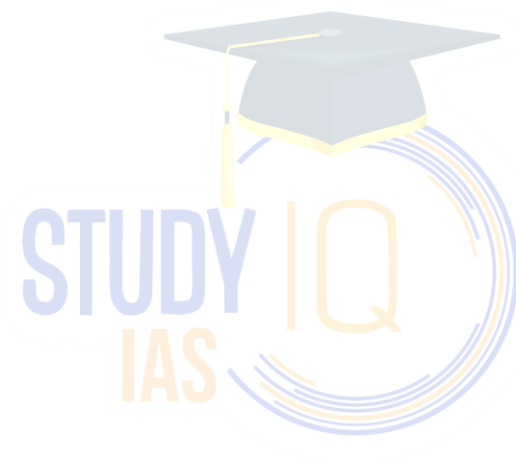
UPSC PYQ

Q. With reference to the Constitution of India, prohibitions or limitations or provisions contained in ordinary laws cannot act as prohibitions or limitations on the constitutional powers under Article 142. It could mean which one of the following? (2019)

- (a) The decisions taken by the Election Commission of India while discharging its duties cannot be challenged in any court of law.
- (b) The Supreme Court of India is not constrained in the exercise of its powers by laws made by the Parliament.
- (c) In the event of grave financial crisis in the country, the President of India can declare Financial Emergency without the counsel from the Cabinet.
- (d) State Legislatures cannot make laws on certain matters without the concurrence of Union Legislature.

Ans: B

Source: [The Hindu: SC grants permanent commission to woman Army officer](#)



News in Short

INS Tushil



- **News?:** INS Tushil, the latest multi-role stealth-guided missile frigate, was commissioned into the Indian Navy.
- **About it:**
 - Part of the Krivak III class (Project 1135.6).
 - 7th in the series of Krivak III frigates (3 Talwar-class frigates and 3 Teg-class ships).
 - Built at Yantar Shipyard in Kaliningrad, Russia.
 - Speed of over **30 knots**
 - It will join the Indian Navy's '**Sword Arm**', the Western Fleet under the Western Naval Command.

Source: [The Hindu: Frigate INS Tushil commissioned into the Indian Navy in Russia's Kaliningrad](#)

What is Antimatter?

- **Antimatter** is stated as matter consisting of the antiparticles of the corresponding particles in ordinary matter.
- **Subatomic Antiparticles:** For every known subatomic particle (like electrons, protons, and neutrons), there exists an antiparticle with the same mass but opposite charge and other quantum properties.
- **Examples:**
 - The antiparticle of an electron is a positron, carrying a positive charge.
 - The antiparticle of a proton is an antiproton, carrying a negative charge.
- **Annihilation:** When a particle and its antiparticle meet, they annihilate each other, releasing a burst of energy in the form of photons (light).

The main difference between antimatter and antiparticles is that antimatter is a material made up of antiparticles:

- **Antimatter**

A material made up of subatomic particles that have the same mass as particles of ordinary matter, but have opposite electric charge and magnetic moment.

- **Antiparticles**

A subatomic particle that has the same mass as another particle, but has opposite electric charge and magnetic moment.

Source: [The Hindu: Antimatter idea offers scientists clue to cracking cosmic mystery](#)

Editorial Summary

In energy-dependent world, the issue of food security

Context

- The World Bank's latest report on climate and development emphasizes the critical interconnection between food insecurity and energy poverty.
- The report asserts that addressing these intertwined crises is essential for achieving global stability.

Interconnected Crises: Food and Energy

- **Strain on Systems:**
 - **Food production** faces challenges from **climate change, population growth, and inequality**.
 - **Energy systems** struggle with **geopolitical tensions, outdated infrastructure, and a slow transition** from fossil fuels.
- **Agriculture's Dual Role:**
 - Agriculture is both a **major energy consumer** and a **significant emitter** of greenhouse gases, contributing over **20%** of emissions.
 - Nearly **70% of global freshwater resources** are consumed by agriculture.
 - Dependency on fossil fuels for mechanization, irrigation, fertilizer production, and transportation creates a **vicious cycle of degradation**.
 - **Food vs. Energy Needs:** Agriculture is expected to support **biofuel production**, creating competition for **land and water resources**.
 - In a world where **12%** face hunger, prioritizing energy over food raises ethical concerns.
 - **Financial Requirements:**
 - Ensuring basic caloric needs for vulnerable populations requires **\$90 billion annually** until 2030.
 - Tackling malnutrition among women and children needs an additional **\$11 billion per year**.
 - Transforming food systems could cost **\$300–\$400 billion annually** (about **0.5% of global GDP**).
 - For low-income nations, food insecurity costs can surpass **95% of GDP**.
- **Renewable Energy Challenges:**
 - High-income countries accounted for **83%** of new renewable capacity in 2022.
 - Low-income nations remain reliant on **carbon-intensive systems**.
 - Innovations like **solar-powered irrigation** and **biomass energy** offer promise but are hindered by **high costs** and **infrastructure deficits**.

Dependency on Carbon-Intensive Energy

- **Vulnerability of Food Systems:**
 - Fossil fuel reliance exposes agriculture to **energy price shocks**.
 - Rising temperatures and erratic weather patterns disrupt output, endangering the livelihoods of **2.5 billion people**.
 - Between **2020 and 2023**, **11.8%** of the global population faced severe food insecurity, projected to increase to **956 million** by **2028**.
- **Energy Investments:**
 - In **2022**, renewable energy investments reached **\$500 billion**, but fossil fuel consumption persists due to economic and geopolitical pressures.

- Countries like the **United States, Brazil, and Guyana** continue expanding **oil and gas production**.
- **Global Inequities:**
 - Low-income countries suffer disproportionately from **energy supply disruptions** and **infrastructure damage** due to extreme weather.
 - In **sub-Saharan Africa**, fertilizer use per hectare remains low despite spending **\$1.9 billion** on fertilizer imports in 2021 (a doubling since 2016).
- **Impact of Natural Gas Prices:**
 - **80%** of natural gas is used for ammonia synthesis (fertilizer), and **20%** powers the process.
 - Price volatility affects global food costs.
 - **China's 2021 ban** on phosphate fertilizer exports caused delays for countries like **India**, which imports **60%** of its **DAP fertilizers**.

Consequences of Inaction

- **Economic and Social Costs:** Food insecurity could cost the global economy **trillions** in lost productivity and poor health outcomes.
 - **Climate-induced energy disruptions** may lead to regional instability, social unrest, and **mass migration**.
- **Africa's Resource Paradox:** Despite Africa's **mineral wealth** essential for renewables, local economies often don't benefit, perpetuating poverty.

The Need for Inclusive Solutions

- **Urgent Action:**
 - Despite record investments in renewables, fossil fuel use continues.
 - Delays increase **human, environmental, and economic costs**.
 - Clean energy must address **structural barriers** to ensure vulnerable communities benefit.
- **Reimagining Agriculture:**
 - Agriculture must be viewed as a driver of **sustenance and sustainable development**.
 - Failure to act risks worsening hunger and derailing **global climate goals**.

Source: [The Hindu: In energy-dependent world, the issue of food security](#)

Indians need the right to disconnect

Context

The issue of **workplace stress** and the demand for the **right to disconnect** are gaining attention following tragic incidents and emerging data on prolonged working hours.

More in News

- The death of an EY employee in September, allegedly due to work pressure, sparked concern.
- Opponents announced that they would raise this issue in Parliament, condemning “inhumanity at the workplace.”

Facts

- **Health Risks of Overwork:** Prolonged working hours lead to **stress** and **coronary heart diseases** (as per **Harvard Business Review**).
 - French politician **Benoit Hamon** highlighted the issue of employees being tethered to their work through **texts, messages, and emails** even after leaving the office, **causing mental exhaustion**.
- **Overworking reduces productivity:** **University of Oxford** and **BT** study found a **direct link** between employee **happiness and productivity**.

Workplace Stress and Inhuman Working Conditions

- **Women Professionals Affected:** Indian women in sectors like **auditing, IT, and media** often work **more than 55 hours a week**, as reported by *The Hindu*.
- **Impact on Mental Health:** According to the **ADP Research Institute**, **49% of Indian workers** report that workplace stress negatively impacts their mental health.

Right to Disconnect Laws in Other Countries

Several countries have implemented laws to protect employees’ rights to disconnect outside of working hours:

- **France:** The **Labour Chamber of the French Supreme Court (2001)** ruled that employees are **not obligated** to work from home or remain reachable after working hours.
 - The **Cour de Cassation** upheld that being unreachable outside working hours does not constitute misconduct.
- **Portugal:** It is illegal for employers to contact employees outside working hours, except in emergencies.
- **Spain:** **Article 88** of the **Organic Law 3/2018** guarantees employees the right to disconnect to protect **personal and family privacy** and promote **work-life balance**.
- **Australia:** The **Fair Work Legislation Amendment (2023)** grants employees the right to disconnect outside working hours.
- **Ireland:** Officially recognizes the right to disconnect for employees

India’s Legal Framework and Current Status

India does not yet have specific laws on the right to disconnect, but existing constitutional and judicial principles address workplace dignity and well-being:

- **Constitutional Provisions:**
 - **Article 38:** The state must promote the **welfare of the people**.
 - **Article 39(e):** Policies should secure the **health and strength of workers**.
- **Judicial Precedents:**
 - **Vishakha v. State of Rajasthan (1997):** Recognized the right to **dignity** at the workplace and issued guidelines to ensure **safe working environments** for women.

- **Ravindra Kumar Dhariwal v. Union of India (2021)**: Emphasized **inclusive equality** and reasonable accommodation for **persons with disabilities**.
- **Praveen Pradhan v. State of Uttaranchal (2012)**: Ruled against **public humiliation** and inhumane treatment of employees by superiors.
- **Legislative Attempts**
 - **Supriya Sule's Private Member Bill (2018)**:
 - Proposed a **right to disconnect** after working hours.
 - Suggested a **penalty of 1%** of the total remuneration of all employees for noncompliance.

Economic and Social Impact

- India aims to become the **third-largest economy by 2030**. Recognizing the right to disconnect is vital for:
 - **Employee well-being**
 - **Increased productivity**
 - **Balanced economic growth**
- Employers must consider **psychological factors** and support work-life balance to ensure sustainable growth.

Source: [The Hindu: Indians need the right to disconnect](#)

