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# AUGUST

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# CURRENT AFFAIRS

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## **GS 2 : Polity, Governance, International Relations**

### **1. Tamil Nadu legislature turns 100**

The Assembly chambers at Fort St. George, the 17th-century vestige of the colonial era, and Tamil Nadu's seat of power have completed 100 years of existence.

#### **Elections in Tamil Nadu**

- Tamil Nadu witnessed elections in November 1920 as a result of the Montagu-Chelmsford Report and the Government of India Act of 1919.
- The electors included only men, accounting for just 3% of the population.
- The concept of dyarchy came into being with Ministers, who were Indians, gaining limited control over certain subjects, such as local self-government and education.
- It was then that the office of the Chief Minister, also called Premier, got instituted.

#### **Key works accomplished**

- **Reservations in public employment:** For the first time, caste became the basis for appointment to public services. It took over 70 years for the Central government to follow the principle in its institutions for education and employment.
- **Above 50% cap in reservation:** In December 1993, the scheme of 69% reservation for Backward Classes, Most Backward Classes, SCs and STs got legal safeguard. The law was subsequently included in the IX Schedule of the Constitution, through an amendment passed in Parliament, so that its validity could not be challenged.

#### **Other facts**

- **Women's suffrage:** In early 1927, Muthulakshmi Reddy, the well-known medical practitioner and social activist, became the first woman member of the Council and, in no time, became the Deputy President of the Council.
- **Gopuram as an emblem:** The symbol features a 'gopuram' (temple tower) – characteristic of south Indian temples has been adopted as the state emblem.

- **Change of name:** During the two-year rule of the DMK founder C.N. Annadurai, the Assembly, in July 1967, adopted a motion renaming Madras State as Tamil Nadu, which later got the approval of Parliament.
- **Social reforms:** It has passed several landmark laws for the welfare of women, such as Devadasi abolition, equal rights to women in property and the constitution of the State Commission for Women.

## 2. India set to take over as President of the UNSC

India will take over the Presidency of the UN Security Council on August 1 and is set to host signature events in three major areas of maritime security, peacekeeping, and counterterrorism during the month.

### Key agendas on the table

During its Presidency, India will be organizing high-level signature events in three major areas:

- Maritime security
- Peacekeeping and
- Counterterrorism

### About United Nations Security Council

- The UNSC is one of the six principal organs of the United Nations and is charged with the maintenance of international peace and security.
- Its powers include the establishment of peacekeeping operations, the establishment of international sanctions, and the authorization of military action through Security Council resolutions.
- It is the only UN body with the authority to issue binding resolutions to member states.
- The Security Council consists of fifteen members. Russia, the United Kingdom, France, China, and the United States – serve as the body's five permanent members (P5).
- These permanent members can veto any substantive Security Council resolution, including those on the admission of new member states or candidates for Secretary-General.
- The Security Council also has 10 non-permanent members, elected on a regional basis to serve two-year terms. The body's presidency rotates monthly among its members.

## Issues with UNSC

### (1) Non-representative

- UNSC in its current form is not representative of the developing world and global needs – with the primacy of policy being a political tool in hands of P5.
- By 1992, India, Brazil, Germany, and Japan (referred as G4) had put up their claims and logic for demanding inclusion as permanent members.
- India has been part of UN since its inception and has contributed maximum peacekeepers to UN so far, has a strong case.
- Brazil is the largest country in Latin America (unrepresented continent) and fifth-largest in the world. Japan and Germany are one of the largest financial donors to UN.

### (2) Rivalry with G4

- The pitch for reforms of G4 was lowered by their regional rivals like Italy, Pakistan, Mexico and Egypt.
- They started formulation of another interest group, known to be “Uniting for Consensus” opposing G4 becoming permanent members with veto power.

### (3) Rigid framework

- Reforms in the UNSC also require an amendment to the UN charter, in accordance with Article 108.
- This highlights that any reform of the Security Council not only requires the support of at least two-thirds of UN member states but also all the permanent members.

### (4) Veto power

- The stance of P5 members to expansion has been varying as per their national interest, like most P5 members agree to Indian inclusion, except China.
- It becomes obvious that even if one member of P5 doesn't agree to any reform, the UNSC cannot be reformed.
- There have been many proposals since its inception from totally abolishing veto power to selectively using it for vital national security issues.

### (5) No consensus

- It has been seen in past that the UNSC, in some of the major global security issues, could not arrive at a consensus and interventions that happened by countries mainly from P5 without UNSC resolution.

- US entry in Iraq war or Warsaw Pact war in Afghanistan are few cases in point.
- The UNSC has thus become an organization, which can pass strong resolutions against weak countries, weak resolutions against strong countries and no resolution against P5 countries.

### Suggested reforms

- **Expansion:** Besides the existing P5 members, an expansion of UNSC from five to 10 permanent members, with the addition of G4 and South Africa. This will provide equitable regional representation besides balancing the developing and developed world to meet the aspirations of humanity.
- **Abolition of veto:** The expansion of P5 without veto power makes very little impact on the problems, because of which the reforms are required. Ideally the veto power should be abolished.

### Will UNSC reforms ever happen?

- Under the given charter, articles and structures, there is very little hope for UNSC reforms in near future.
- The lack of reforms can push the credibility crisis of UN to a degree that it becomes unsustainable for it to function, or incidences of side-lining the UN increase manifold.
- If the UNSC does not appoint new permanent members then its primacy may be challenged by some of the new emerging countries.
- There is also a possibility that if UN doesn't reform itself, it may lose relevance and alternate global and regional groupings may assume greater importance.
- No P5 member is likely to compromise this power in its own national interest, which is generally prioritized before global interest, thus making the reformation process a mirage.

## 3. 'Ashwagandha' in Covid-19 Recovery

### Why in News

Recently, **India and the UK** have collaborated to conduct a **study on 'Ashwagandha (AG)' for promoting recovery from Covid-19.**

- After the trial's success, 'Ashwagandha' will be a proven medicinal treatment to prevent infection and be recognised by the scientific community worldwide.
- This is the first time that the Ministry of Ayush has collaborated with a foreign institution to investigate its efficacy on Covid-19 patients.

## Key Points

- **About Ashwagandha:**
  - Ashwagandha (**Withania somnifera**) is a medicinal herb. It is reputed as an immunity enhancer.
  - It is classified as an **adaptogen**, which means that it can **help the body to manage stress**.
  - Ashwagandha also boosts brain function and lowers blood sugar and helps fight symptoms of anxiety and depression.
  - Ashwagandha has shown clinical success in **treating both acute and chronic rheumatoid arthritis**.
    - **Rheumatoid arthritis (RA)** is an autoimmune disease that can **cause joint pain and damage throughout your body**.
    - An autoimmune disease is a condition in which your immune system mistakenly attacks your body.
- **Potential of Ashwagandha:**
  - The study suggests Ashwagandha as a potential therapeutic candidate for **alleviating the long-term symptoms of Covid-19**.
  - Recently, a number of **randomised placebo-controlled trials** of AG in humans in India had demonstrated its efficacy in reducing anxiety and stress, improving muscle strength and reducing symptoms of fatigue in patients treated for chronic conditions.
    - A randomized controlled trial is a prospective, comparative, quantitative study/experiment performed under controlled conditions with random allocation of interventions to comparison groups.
- **Clinical Trials:**
  - Clinical trials in humans are classified into three phases: **phase I, phase II and phase III** and in certain countries formal regulatory approval is required to undertake any of these studies.
    - The **phase I clinical studies** carry out **initial testing of a vaccine in small numbers (e.g. 20) of healthy adults**, to test the properties of a vaccine, its tolerability, and, if appropriate, clinical laboratory and pharmacological parameters. Phase I studies are primarily concerned with safety.
    - **Phase II studies involve larger numbers of subjects** and are intended to provide preliminary information about a vaccine's

ability to produce its desired effect (usually immunogenicity) in the target population and its general safety.

- **Extensive phase III** trials are required to fully assess the protective efficacy and safety of a vaccine. The phase III clinical trial is the pivotal study on which the decision on whether to grant the licence is based and sufficient data have to be obtained to demonstrate that a new product is safe and effective for the purpose intended.

#### 4. Provincial Status to Gilgit-Baltistan: Pakistan

##### Why in News

Recently, it has been reported that, Pakistani authorities have finalised a law (**26<sup>th</sup> Constitutional Amendment Bill**), to award **provisional provincial status to strategically located Gilgit-Baltistan**.

##### Key Points

- **About Gilgit-Baltistan:**
  - Gilgit-Baltistan is one of the **disputed territories** of India.
  - It is a chunk of **high-altitude territory** located on the **north western corner of the Union Territory of Ladakh**.
  - It is located strategically as it **borders Pakistan, Afghanistan and China**.
- **Background of Gilgit-Baltistan Dispute:**
  - The region is **claimed by India as part of the erstwhile princely state of Jammu & Kashmir** as it existed in 1947 at its accession to India.
    - **Maharaja Hari Singh**, the last Dogra ruler of J&K, had signed the Instrument of Accession with India on 26<sup>th</sup> October 1947.
  - However, it has been under **Pakistan's control since 4<sup>th</sup> November, 1947**, following the **invasion of Kashmir by tribal militias** and the Pakistan army.
  - Following this invasion, India moved to the **United Nations Security Council** to raise the issue of Pakistan's invasion, on 1<sup>st</sup> January 1948.
  - The UN Security Council passed a resolution:
    - Calling for **Pakistan to withdraw from all of Jammu and Kashmir** and then **India had to reduce its forces to the minimum level** following which a **plebiscite** would be held to ascertain people's wishes.
  - However, **no withdrawal** was ever carried out and it remains a point of contention between two countries.

- **Current Status:**
  - Gilgit-Baltistan is an **autonomous region** now and after the bill is passed, it will become the **5<sup>th</sup> province of the country**.
    - Currently, Pakistan has four provinces namely Balochistan, Khyber Pakhtunkhwa, Punjab, and Sindh.
  - Presently, it has been ruled mostly by **executive orders**.
  - Until 2009, the region was simply called **Northern Areas**.
  - It got its present name only with the **Gilgit-Baltistan (Empowerment and Self-Governance) Order, 2009**, which replaced the Northern Areas Legislative Council with the Legislative Assembly.
- **Reasons for Making Gilgit-Baltistan a Province:**
  - Gilgit-Baltistan is the northernmost territory administered by Pakistan. It is **Pakistan's only territorial frontier, and thus a land route, with China**.
    - The Gilgit-Baltistan region is at the centre of the USD 65 billion **China Pakistan Economic Corridor (CPEC)** Infrastructure development plan.
    - The CPEC has made the region vital for both countries. The CPEC, which connects Gwadar Port in Pakistan's Balochistan with China's Xinjiang province, is the flagship project of China's ambitious multi-billion-dollar **Belt and Road Initiative (BRI)**.
  - Some experts on India-Pakistan relations also assert that Pakistan's decision might have come from India's reassertion of its claims after the 5<sup>th</sup> August, 2019 **reorganisation of Jammu & Kashmir**.
- **India's Stand:**
  - India maintains the Government of Pakistan or its judiciary has no locus standi on territories illegally and forcibly occupied by it.
  - India has clearly conveyed to Pakistan that the entire Union Territories of Jammu and Kashmir and Ladakh, including the areas of Gilgit and Baltistan, are an integral part of the country by virtue of its fully legal and irrevocable accession.
  - India has protested to China over the CPEC as it is being laid through Pakistan-occupied Kashmir.

## **GS 3 : Economy, Science and Technology, Environment**

### **5. Stellar Mid-life Crisis: What ails the middle-aged Sun?**

Stars like our Sun can go through a mid-life crisis, according to new research carried out by scientists from IISER Kolkata.



## Stellar Middle Age

- At about 4.6 billion years of age, the sun is middle-aged, that is, it will continue to live for roughly the same period.
- There are accurate methods for estimating the age of the Sun, such as by using radioactive dating of very old meteorites that have fallen on the Earth.
- However, for more distant stars which are similar in mass and age to the Sun, such methods are not possible.
- One of the methods used is called gyrochronology.
- There is a relationship between rotation rate and age, that is the rotation rate of a star slows down with age.

## How does it occur?

- When the stellar wind escapes from the star, it carries away with it a part of the angular momentum of the star, which results in its slowing down.
- The stellar wind has two drivers: one is the high temperature of the outer atmosphere of stars – the corona – which results in an outward expansion and hence plasma winds that emanate out.
- The other is the magnetic field.
- The magnetic field actually heats the corona and so when magnetic activity is strong the winds are strong and since wind carries away the internal (rotational) angular momentum of the star, it slows down its rotation.
- This is called magnetic braking.
- As the star ages, due to this mechanism, its rotation slows down and this relationship is used in gyrochronology to estimate the age of the star.

## Impact

- This can lead to dramatic changes in their activity and rotation rates.
- The study also provides an explanation for the breakdown of the long-established relation between rotation rate and age in middle-aged sunlike stars.
- However, there is a breakdown of the gyrochronology relationship, because, after midlife, a star's rate of spin does not slow down with age as fast as it was slowing down earlier.
- Another intriguing fact is that the Sun's activity level has been observed to be much lower than other stars of similar age.

## 6. A cycle of low growth, higher inflation

### Context

In recent times, several economists have been arguing that the Government does not need to do anything with the economy. They argue that like after the Great Depression, the economy rebounded worldwide, and so will it with us. The argument is fallacious on four accounts:

### Four factors that make recovery different from the recovery after the Great Depression

#### 1) Demand destruction

- In the case of the Great Depression, demand was created by the Second World War effort, especially in the United States.
- **Demand destruction:** In the current scenario, the COVID-19 pandemic has resulted in demand destruction.
- This is because many jobs have been lost, and even where jobs were retained, there have been pay cuts.
- Both of these trends were confirmed in the Centre for Monitoring Indian Economy and other surveys.

#### Bright spot on export front

- The only bright spot in this dismal scenario is that the western world has spent a lot of money **stimulating the economy**.
- However, the Indian exporter face the challenge of rising freight costs and structural issues such as a **strong rupee** relative to major competitors.
- Only the Indian **IT sector is placed well** to capitalise on rising demand in the world markets.

#### 2) Inflation and factors driving it

- India is suffering from stagnant growth to low growth in the last two quarters.
- As in the **low initial base** set by last year, almost any growth this year is seen as a significant growth percentage.
- **Commodity prices and monetary policy:** Inflation in India is being imported through a combination of **high commodity prices** and high asset price inflation caused by **ultra-loose monetary policy** followed across the globe.

- **Liquidity infusion:** RBI is infusing massive liquidity into the system by following an expansionary monetary policy through the **G-SAP, or Government Securities Acquisition Programme**.
- Foreign portfolio investors have directed a portion of the liquidity towards our markets.
- India has a relatively low market capitalisation, therefore, India cannot absorb the enormous capital inflow without **asset prices inflating**.
- **Supply chain issues:** Additionally, supply chain bottlenecks have contributed to the inflation we see in India today.
- **Rising fuel prices:** India's usurious taxation policy on fuel has made things worse.
- Rising fuel prices percolate into the economy by increasing costs for transport.

### Impact of inflation

- The middle and lower-middle-class get destitute due to regressive indirect taxes and high inflation, with **their wealth eroding due to said inflation**.
- Especially in the case of the lower middle class, inflation is lethal as they do not have access to any hard assets, including the most fundamental hard asset, gold.
- The increase in fuel prices will also lead to a rise in wages demanded as the monthly expense of the general public increases.
- This leads to the dangerous cycle of **inflation and depleting growth**.

### 3) Interest Rate

- The only solution for any central banker once he realises that inflation is entrenched is tightening liquidity and further pushing the cost of money.
- If this does not dampen inflation, repo rates will need to go up later this year or early next year.
- **Tightening the money supply** is a painful act that will threaten to decimate what is left of our economy.
- Rising interest rates lead to a **decrease in aggregate demand** in a country, which affects the GDP.
- There is less spending by consumers and investments by corporates.

### 4) Rising NPA and its impact on credit growth

- Rising interest rates, lack of liquidity, and offering credit to leveraged companies instead of direct subsidies to support small and medium-sized enterprises (SMEs) and micro, small and medium enterprises (MSMEs) to

counter the COVID-19 pandemic and its effects will result in NPAs of public sector banks climbing faster.

- Our small and medium scale sector is facing a **Minsky moment**.
- The Minsky moment marks the decline of asset prices, causing mass panic and the inability of debtors to pay their interest and principal.
- India has reached its Minsky moment.
- This means that the public sector unit and several other banks will need capital in copious amounts to make up for bad debt.
- The Union government's Budget is in no position to infuse large amounts of capital.
- As a result of the above causes, **credit growth is at a multi-year low of 5.6%**.

### Way forward

- Indian economy is in a vicious cycle of low growth and higher inflation unless **policy action** ensures higher demand and growth.

### Conclusion

In the absence of policy interventions, India will continue on the path of a K-shaped recovery where large corporates with low debt will prosper at the cost of small and medium sectors. This means lower employment as most of the jobs are created by the latter.

## 7. NASA-ISRO Synthetic Aperture Radar

The NASA-ISRO Synthetic Aperture Radar satellite, aimed at making global measurement of land surface changes using advanced radar imaging, is proposed to be launched in early 2023, informed Earth Sciences Minister.

### NASA-ISRO SAR

- NISAR is a joint collaboration for a dual-frequency L and S-band SAR for earth observation.
- NASA and Bengaluru-headquartered ISRO signed a partnership on September 30, 2014, to collaborate on and launch NISAR.
- The mission is targeted to launch in early 2022 from ISRO's Sriharikota spaceport in Andhra Pradesh's Nellore district, about 100km north of Chennai.
- It is capable of producing extremely high-resolution images for a joint earth observation satellite mission with NASA.

- It will be the first satellite mission to use two different radar frequencies (L-band and S-band) to measure changes in our planet's surface less than a centimeter across.

### Objectives of the NISAR

- NISAR will observe Earth's land and ice-covered surfaces globally with 12-day regularity on ascending and descending passes, sampling Earth on average every six days for a baseline three-year mission.
- It will measure Earth's changing ecosystems, dynamic surfaces, and ice masses, providing information about biomass, natural hazards, sea-level rise, and groundwater, and will support a host of other applications.
- It would also provide data on natural hazards including earthquakes, tsunamis, volcanoes, and landslides.

### What are L and S Bands?

- L band waves are used for GPS units because they are able to penetrate clouds, fog, rain, storms, and vegetation.
- The S-band is used by airport surveillance radar for air traffic control, weather radar, surface ship radar, and some communications satellites, especially those used by NASA to communicate with the Space Shuttle and the International Space Station.
- NISAR uses a sophisticated information-processing technique known as SAR to produce extremely high-resolution images.
- Radar penetrates clouds and darkness, enabling NISAR to collect data day and night in any weather.

### What is collaboration?

- NASA is providing the mission's L-band SAR, a high-rate communication subsystem for science data, GPS receivers, a solid-state recorder, and payload data subsystem.
- ISRO is providing the spacecraft bus, the S-band radar, the launch vehicle, and associated launch services for the mission, whose goal is to make global measurements of the causes and consequences of land surface changes using advanced radar imaging.

## 8. Core Sectors Output

## Why in News

Output at India's eight core sectors **grew by 8.9% in June 2021 largely due to Base Effect** but the pace remained below the production levels seen before the **Covid-19** pandemic as well as its **second wave**.

## Key Points

- **About Eight Core Sectors:**
  - These comprise **40.27%** of the weight of items included in the **Index of Industrial Production (IIP)**.
  - The eight core sector industries in decreasing order of their weightage: **Refinery Products > Electricity > Steel > Coal > Crude Oil > Natural Gas > Cement > Fertilizers**.
- **Base Effect:**
  - The base effect **refers to the effect that the choice of a basis of comparison or reference can have on the result** of the comparison between data points.
  - For example, the base effect **can lead to an apparent under- or overstatement of figures** such as inflation rates or economic growth rates if the point chosen for comparison has an unusually high or low value relative to the current period or the overall data.
  - Production of coal, natural gas, refinery products, steel, cement and electricity jumped by 7.4%, 20.6%, 2.4%, 25%, 4.3% and 7.2%, respectively, in June 2021, as against (-) 15.5%, (-) 12%, (-) 8.9%, (-) 23.2%, (-) 6.8% and (-) 10% in the same month last year.
- **Index of Industrial Production:**
  - IIP is an indicator that measures the changes in the volume of production of industrial products during a given period.
  - It is compiled and published monthly by the **National Statistical Office (NSO)**, Ministry of Statistics and Programme Implementation.
  - It is a composite indicator that measures the growth rate of industry groups classified under:
    - **Broad sectors**, namely, Mining, Manufacturing, and Electricity.
    - **Use-based sectors**, namely Basic Goods, Capital Goods, and Intermediate Goods.
  - **Base Year** for IIP is **2011-2012**.
  - **Significance of IIP:**
    - It is used by government agencies including the Ministry of Finance, the Reserve Bank of India, etc, for policy-making purposes.
    - IIP remains extremely relevant for the calculation of the quarterly and advance **GDP (Gross Domestic Product)** estimates.

## THE INDIAN EXPRESS

### GS 2 : Polity, Governance, International Relations

#### 1. Delhi-Alwar RRTS Project

##### Why in News

The **Supreme Court**-Appointed Committee has permitted construction of a stretch of the proposed Delhi-Alwar **RRTS (Rapid Rail transit system)** corridor under the **Aravalli Biodiversity Park** and the extended ridge area.

##### Key Points

- **Committee's Report:**
  - The committee observed that the **project is in public interest** and since the proposed rail corridor will run **20 metres below the ground**, trees will not have to be cut.
  - There will be **no construction on the surface** in the Morphological Ridge area.
    - A **ridge** or a mountain ridge is a geographical feature consisting of a **chain of mountains or hills that form a continuous elevated crest** for some distance.
    - The Aravalli **ridge areas**, which are essentially extensions of the Aravalli ranges and extend over 7,000 hectares in Delhi, are **considered the lungs of the capital (Delhi)**.
- **Delhi-Alwar RRTS Corridor:**
  - It is a **164-km rapid rail corridor**, which will be a mix of **elevated tracks and tunnels**. It is slated to be implemented in three phases.
  - A 3.6-km stretch of the corridor is supposed to pass below the extended or '**morphological**' ridge in South Delhi.

- 1.7-km of the 3.6-km stretch under consideration will pass below the **Aravalli Biodiversity Park** near Vasant Kunj, Delhi.
- **Significance of Corridor:**
  - **Travel Time:**
    - It is expected to reduce travel time **between these places to 117 minutes - a little less than two hours.**
  - **Air Quality:**
    - It is expected to **improve the air quality in Delhi/NCR** (National Capital Region), because the share of public transport is expected to increase.
  - **Ease in Road Traffic:**
    - **Road traffic congestion is expected to ease with a better transport network** and the project is expected to address regional connectivity issues and develop an efficient multimodal transport system connecting Delhi-NCR with road, rail and air.

### **Aravalli Biodiversity Park**

- It is developed on 699 acres of land **located in South Delhi** near Vasant Vihar.
- The area is **highly degraded** due to past mining and infested with **Prosopis juliflora** (an Invasive Shrub).
  - The **biodiversity of Delhi is nearly extinct.**
- The **prime objective of ABP is to bring back the lost biodiversity of Delhi Aravallis.** The other objective of ABP is to promote nature education among students and create environment awareness among the public.
- It is also **helping in preserving the threatened medicinal plants of the Aravallis.**

## **2. India Assumes UNSC Presidency**

### **Why in News**

Recently, India assumed the presidency of the **United Nations Security Council (UNSC)** for the month of August 2021.

- This will be the **country's first presidency during its 2021-22 tenure as a non-permanent member** of the Security Council.
- India began its **two-year tenure as a non-permanent member of the UNSC in January 2021.**
  - This is India's **eighth term** on the UNSC.



## Key Points

- **India's UNSC Presidency:**
  - India will **decide the UN body's agenda for the month** and coordinate important meetings on a range of issues.
  - It is going to **organise key events** in three major areas of **maritime security, peacekeeping and counter-terrorism**.
    - The Security Council will also have on its agenda several important meetings including **Syria, Iraq, Somalia, Yemen, and the Middle East**.
    - The Security Council will also be adopting important resolutions on **Somalia, Mali, & United Nations Interim Force in Lebanon**.
  - Prime Minister (PM) Narendra Modi will be the **first Indian PM** to preside over a meeting of the UNSC.
    - The last time an Indian PM was engaged in this effort was the then PM **PV Narasimha Rao in 1992** when he attended a UNSC meeting.
- **Support from France & Russia:**
  - **France** has stated that it is dedicated to **collaborating with India over strategic problems** such as maritime security, peacekeeping, and counter-terrorism.
  - **Russia** welcomed the country gaining the UNSC presidency saying it is very **impressed by India's agenda**, which embraces **critical global concerns**.
- **Challenges for India at UNSC:**
  - **China Challenge:**
    - India is entering the UNSC at a time when Beijing is asserting itself at the global stage much more vigorously than ever. It heads at least six UN organisations and has challenged the global rules.
    - China's aggressive behaviour in the **Indo-Pacific** as well as the **India-China border** has been visible in all of 2020.
    - China has tried to raise the **issue of Kashmir** at the UNSC.
  - **Post Covid World Order:**
    - As the **global economy is in shambles with various countries facing recession and health emergencies**.
  - **Balancing USA and Russia and Unstable West Asia:**
    - With the situation **deteriorating between the US and Russia and increasing tensions between US and Iran**, it will be a **tough situation to handle for India**.
    - India **needs to uphold rule based world order** with due respect to human rights ensuring the national interest.

## United Nation Security Council

- **About:**
  - The **UNs Charter established six main organs of the UN, including the UNSC. Article 23** of the UN Charter concerns the composition of the UNSC.
    - The other 5 organs of the UN are – the **General Assembly, the Trusteeship Council, the Economic and Social Council, the International Court of Justice, and the Secretariat.**
  - The UNSC has been given **primary responsibility for maintaining international peace and security** and may meet whenever peace is threatened.
  - While other organs of the UN make recommendations to member states, **only the Security Council has the power to make decisions** that member states are then obligated to implement under the Charter.
- **Headquarter:**
  - The council is headquartered at **New York.**
- **Members:**
  - The UNSC is **composed of 15 members, 5 permanent and 10 non-permanent.**
    - **Five permanent members:** China, France, the Russian Federation, the United Kingdom, and the United States.
    - **Ten non-permanent members:** Elected for two-year terms by the General Assembly.
  - Each year, **the General Assembly elects five non-permanent members (out of ten in total) for a two-year term.** The ten non-permanent seats are distributed on a regional basis.
  - The council's **presidency is a capacity that rotates every month among its 15 members.**
- **Voting and Discussions at UNSC:**
  - **Each member of the Security Council has one vote.** Decisions of the Security Council on matters are made by an affirmative vote of nine members including the concurring votes of the permanent members.
    - A **"No" vote from one of the five permanent members blocks the passage of the resolution.**
  - **Any member of the UN** which is not a member of the Security Council **may participate, without vote, in the discussion** of any question brought before the Security Council whenever the latter considers that the interests of that member are specially affected.
- **India as a Permanent Member:**
  - India **has been advocating a permanent seat in UNSC.**
  - India **has the following objective criteria**, such as population, territorial size, **Gross Domestic Product**, economic potential,

civilisational legacy, cultural diversity, political system and past and ongoing contributions to UN activities especially to **UN peacekeeping operations**.

## **GS 3 : Economy, Science and Technology, Environment**

### **3. e-RUPI: Voucher Based Digital Payment System**

#### **Why in News**

The Indian government is going to launch an electronic voucher based digital payment system **e-RUPI**.

- There are already many **countries using the voucher system** for example the **US, Colombia, Chile, Sweden, Hong Kong, etc.**

#### **Key Points**

- **e-RUPI:**
  - It is a **cashless and contactless method for digital payment**. It is a **Quick Response (QR) code** or SMS string-based e-voucher, which is delivered to the mobile of the users.
  - The users will be able to **redeem the voucher without needing a card, digital payments app, or internet banking access**, at the service provider.
  - It connects the sponsors of the services with the beneficiaries and service providers in a digital mode **without any physical interface**.
  - The mechanism also **ensures that the payment to the service provider is made only after the transaction is completed**.
  - The system is **pre-paid** in nature and hence, **assures timely payment to the service provider** without the involvement of any intermediary.
- **Different from Virtual Currency:**
  - In effect, **e-RUPI is still backed by the existing Indian rupee** as the underlying asset and specificity of its purpose makes it different to a **virtual currency** and puts it closer to a **voucher-based payment system**.
- **Issuing Entities & Beneficiary Identification:**
  - The one-time payment mechanism has been developed by the **National Payments Corporation of India** on its **Unified Payments Interface (UPI)** platform, in collaboration with the Department of Financial

Services, Ministry of Health & Family Welfare, and National Health Authority.

- It has boarded **banks that will be the issuing entities**. Any corporate or government agency will have to approach the partner banks, which are both private and public-sector lenders, with the details of specific persons and the purpose for which payments have to be made.
- The **beneficiaries will be identified using their mobile number and a voucher allocated by a bank** to the service provider in the name of a given person would only be delivered to that person.
- **Uses:**
  - **Government Sector:**
    - It is expected to **ensure a leak-proof delivery of welfare services** and can also be **used for delivering services under schemes** meant for providing drugs and nutritional support under Mother and Child welfare schemes, drugs & diagnostics under schemes like **Ayushman Bharat Pradhan Mantri Jan Arogya Yojana**, fertiliser subsidies etc.
  - **Private Sector:**
    - Even the private sector can leverage these digital vouchers as part of their employee welfare and **Corporate Social Responsibility (CSR)** programmes.
- **Significance:**
  - The government is already working on developing a **Central Bank Digital Currency** and the launch of e-RUPI could **potentially highlight the gaps in digital payments infrastructure** that will be necessary for the success of the future digital currency.
- **Future of Digital Currency in India:** According to the **Reserve Bank of India (RBI)**, there are at least **four reasons why digital currencies are expected to do well in India:**
  - **Increasing Penetration:** There is **increasing penetration of digital payments** in the country that exists alongside sustained interest in cash usage, especially for small value transactions.
  - **High Currency to GDP Ratio:** India's high currency to **Gross Domestic Product (GDP)** ratio holds out another benefit of CBDCs.
    - **Cash-to-GDP Ratio** or Currency in Circulation (CIC) to GDP Ratio or simply currency-to-GDP ratio shows the value of cash in circulation as a ratio of GDP.
  - **Spread of Virtual Currencies:** The spread of private virtual currencies such as Bitcoin and Ethereum may be yet another reason why CBDCs become important from the point of view of the central bank.
  - **Will Act as a Cushion:** Central bank digital currencies might also **cushion the general public in an environment of volatile private virtual currencies**.

#### 4. Digital Payment Solution: e-RUPI

The Prime Minister has launched e-RUPI, a person and purpose-specific digital payment solution.

*What is e-RUPI?*

- e-RUPI is a cashless and contactless instrument for digital payment.
- It is a QR code or SMS string-based e-Voucher, which is delivered to the mobile of the beneficiaries.
- The users of this seamless one-time payment mechanism will be able to redeem the voucher without a card, digital payments app, or internet banking access, at the service provider.
- It has been developed by the National Payments Corporation of India on its UPI platform, in collaboration with the Department of Financial Services, Ministry of Health & Family Welfare, and National Health Authority.

*How does it work?*

- e-RUPI connects the sponsors of the services with the beneficiaries and service providers in a digital manner without any physical interface.
- It also ensures that the payment to the service provider is made only after the transaction is completed.
- Being pre-paid in nature, it assures timely payment to the service provider without the involvement of any intermediary.

*Benefits offered*

- It is expected to be a revolutionary initiative in the direction of ensuring a leak-proof delivery of welfare services.
- Even the private sector can leverage these digital vouchers as part of their employee welfare and corporate social responsibility programs.

#### 5. Govt approves two More Strategic Petroleum Reserves

Under Phase II of the petroleum reserve program, the Government has approved two additional commercial-cum-strategic facilities at Chandikhol (Odisha) and Padur (TN) on Public-Private Partnership (PPP) model.

### *Strategic Petroleum Reserves Programme*

- To ensure energy security, the govt had decided to set up 5 million metric tons (MMT) of strategic crude oil storage at three locations namely, Visakhapatnam, Mangalore, and Padur (near Udupi).
- These strategic storages would be in addition to the existing storage of crude oil and petroleum products with the oil companies and would serve as a cushion during any supply disruptions.
- The petroleum reserves established are strategic, and the crude oil stored in these reserves will be used during an oil shortage event, as and when declared so by the Government of India.
- The construction of the Strategic Crude Oil Storage facilities is being managed by Indian Strategic Petroleum Reserves Limited (ISPRL), a Special Purpose Vehicle.

### *Why need SPR?*

- The Gulf War in 1990 caused a sharp rise in oil prices and a massive increase to India's imports.
- During the subsequent 1991 Indian economic crisis, foreign exchange reserves could barely finance three weeks' worth of imports while the government came close to defaulting on its financial obligations.
- India was able to resolve the crisis through policies that liberalized the economy. However, India continued to be impacted by the volatility of oil prices.
- In 1998, the AB Vajpayee administration proposed building petroleum reserves as a long-term solution to managing the oil market.
- Three storage facilities were built in underground locations in Mangalore, Visakhapatnam and Padur.

### *Construction of ISPR*

- The crude oil storages are constructed in underground rock caverns and are located on the East and West coasts of India.
- Crude oil from these caverns can be supplied to the Indian Refineries either through pipelines or through a combination of pipelines and coastal movement.
- Underground rock caverns are considered the safest means of storing hydrocarbons.

## 6. No fossil fuels as usual

### Context

The spread and speed of the destruction caused by climate change in recent weeks present our new Minister of Petroleum and Natural Gas with a policy dilemma. The article offers five policy suggestions to deal with the dilemma.

### Energy dilemma facing India

- The events of the past month all over the world have caught even the most alarmist of climate scientists by surprise.
- These events brought into sharp relief the reality that there was no option of denying the consequential implications of the use of fossil fuels.
- However, the dilemma India faces lies in the fact that the Indian economy is heavily **dependent on fossil fuels** and there is no end in sight to this dependence.
- Further, India **imports approximately 85 per cent of its crude oil requirements** and is exposed to the volatility of the international oil market.

### Five policy changes needed

#### 1) Reduce emphasis on domestic exploration

- **Not easy to locate and difficult to develop:** A review of the public sector's **exploration and production (EP)** track record suggests that whilst India may well be sitting on substantial hydrocarbon reserves, these reserves are **not easy to locate** and, even when located, difficult to develop and produce on a commercial basis.
- The government has often compounded this economic challenge by placing administrative **limits on marketing by companies** and their pricing freedom.
- **High risk and structural softness in the market:** The fundamental point is that EP in India is a high-risk activity, and this risk is even greater today because of the **longer-term structural softness of the petroleum market**.
- The **resources earmarked for exploration** can be deployed more productively elsewhere.

#### 2) Increase productivity of producing fields

- The ONGC needs to allocate increasing resources to improving the **productivity of its producing fields**.

- **Low oil recovery rate:** The average **oil recovery rate** in India was around 28 per cent that is, for every 100 molecules discovered, only 28 were monetised.
- This number did not compare well with the **global average of around 45 per cent** for fields of comparable geology.
- **Use technology:** The application of enhanced oil recovery (EOR) technology offers a relatively **low-risk avenue for increasing domestic production.**

### 3) Increase strategic reserves

- We hold currently strategic reserves equivalent to **12 days of imports.**
- The government has approved plans to increase this buffer to 25 days.
- By comparison, China, the EU, South Korea and Japan hold between **70-100 days of reserves.**
- A significant portion of our oil imports came from the Middle East, predominantly Saudi Arabia, Iraq and Iran.
- This region faces deep political and social fault lines and there is no knowing when our **supply lines might get ruptured.**
- We would, therefore, be well-advised to build contingency safeguards.

### 4) Restructure and reorganise public sector petroleum companies

- **Consolidate upstream assets:** In the first instance, the **upstream assets** should be consolidated under ONGC (the upstream assets of BPCL, IOC, HPCL, and GAIL should pass onto ONGC) and GAIL should be unbundled into a public utility gas pipeline company
- **Diversify:** Thereafter, these companies should be encouraged to look beyond hydrocarbons to build an **“energy” enterprise.**
- The restructuring will help cut back the “avoidable” costs of **intra public sector competition.**
- It will also **reduce the inefficiencies** of “sub scale” operations.
- It will provide a focused platform for balancing the shorter-term need to provide secure and affordable hydrocarbons with the medium and longer-term imperative of developing clean energy.

### 5) Avoid siloed thinking

- The petroleum minister should not see his responsibility through the siloed prism of oil and natural gas.
- He should broaden the aperture and become the progenitor of the energy transition.



## Conclusion

The dilemma referred to in the opening sentence will be easier to resolve our priorities are set within the framework of clean energy.

### Prelims Practice Questions

#### 1. Consider the following statements regarding 'Chief Secretary of State':

1. The Chief Secretary is appointed by the Governor of the State.
2. He/she is the chief advisor to the Chief Minister in all matters of the cabinet.
3. He/she is given a fixed tenure for the post.

Which of the statements given above is/are correct?

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

Answer : B

Explanation

- The Chief Secretary of State is **appointed by the Chief Minister. Hence, statement 1 is not correct.**
- As the appointment of Chief Secretary is an executive action of the Chief Minister, it is taken in the name of the Governor of the State.
- The post of Chief Secretary is the senior-most position in the civil services of the states and union territories of India.
  - The position is a cadre post for the Indian Administrative Services.
- The Chief Secretary is the **chief advisor to the Chief Minister** in all matters of the cabinet. **Hence, statement 2 is correct.**
- The office of Chief Secretary has been excluded from the operation of the tenure system.
  - There is no fixed tenure for this post. **Hence, statement 3 is not correct.**

2. With reference to the Citizenship, consider the following statements:

1. The principle of jus sanguinis confers citizenship on the basis of place of birth.
2. India adopted the principle of jus sanguinis after Independence.

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 :D

Explanation

- Citizenship signifies the relationship between individual and state.
  - Like any other modern state, India has two kinds of people – citizens and aliens.
- Citizens are full members of the Indian State and owe allegiance to it. They enjoy all civil and political rights.
- Citizenship is an idea of exclusion as it excludes non-citizens.
- There are two well-known principles for the grant of citizenship:
  - While '**jus soli**' confers citizenship on the basis of **place of birth**, '**jus sanguinis**' gives **recognition to blood ties**. Hence, **statement 1 is not correct**.
  - From the time of the Motilal Nehru Committee (1928), the Indian leadership was in favour of the enlightened concept of jus soli.
  - The racial idea of **jus sanguinis** was **also rejected by the Constituent Assembly** as it was against the Indian ethos. Hence, **statement 2 is not correct**.

3. With reference to the InSight mission, which of the following statements is/are incorrect?

1. It is part of NASA's Discovery Program
2. InSight is the first mission dedicated to looking deep beneath the Martian surface.

Options:

- a. 1 only
- b. 2 only
- c. Both
- d. None

**Answer: d**

**Explanation:**

- The Interior Exploration using Seismic Investigations, Geodesy and Heat Transport (InSight) mission is a robotic lander designed to study the deep interior of the planet Mars. It is intended to study the interior structure and composition of Mars as well as to detect Marsquakes and other seismic activity, advancing understanding of the formation and evolution of terrestrial planets
- It is part of NASA's Discovery Program
  - The Discovery Program is a series of Solar System exploration missions funded by the US National Aeronautics and Space Administration (NASA) through its Planetary Missions Program Office.
- As of June 2021, the most recently selected Discovery missions are VERITAS and DAVINCI+, the fifteenth and sixteenth missions in the program.

**4. Consider the following statements regarding International Space Station (ISS):**

1. ISS is a habitable artificial satellite in high earth orbit.
2. It is a joint project between four participating space agencies -NASA (United States), Roscosmos (Russia), JAXA (Japan) and ESA (Europe).
3. Baby squids will be sent to ISS for conducting various scientific studies.

Which of the statements given above is/are correct?

- A 1 only
- B 2 only
- C Both 1 and 2
- D None

Answer : C

Explanation

- International Space Station (ISS) is a habitable artificial satellite - the single largest man-made structure in **low earth orbit**. Hence, **statement 1 is not correct**.
  - Its first component was launched into orbit in 1998.
- It circles the Earth in roughly 92 minutes and completes 15.5 orbits per day.
- The ISS programme is a joint project between **five participating space agencies**: NASA (United States), Roscosmos (Russia), JAXA (Japan), ESA (Europe), and CSA (Canada) but its ownership and use has been established by intergovernmental treaties and agreements. Hence, statement 2 is not correct.

5. With reference to the Indian Coast Guard, consider the following statements:

1. It is a maritime law enforcement agency under the Ministry of Defence.
2. It has jurisdiction only over the territorial waters of India.
3. It is responsible for marine environment protection in maritime zones of India.

Which of the statements given above is/are correct?

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

Answer : A

Explanation

- **Indian Coast Guard** is an Armed Force, Search and Rescue and Maritime Law Enforcement agency under the **Ministry of Defence**. Hence, **statement 1 is correct**.
- It has a wide range of task capabilities for both surface and air operations. It is one of the largest coast guards in the world.
- It was established on 18<sup>th</sup> August 1978 by the Coast Guard Act, 1978. It performs non-military functions.

- The concept of forming ICG came into being after the 1971 war the blueprint for a multidimensional Coast Guard was conceived by the visionary Rustamji Committee.
- The organization is headed by the Director General Indian Coast Guard (DGICG) exercising his overall command and superintendence from the Coast Guard Headquarters (CGHQ) located at New Delhi.
- It has **jurisdiction over the territorial waters of India including contiguous zone and exclusive economic zone. Hence, statement 2 is not correct.**
  - The territorial water is up to 12 nautical miles from the nearest point of the baseline; beyond territorial waters is the Contiguous Zone extending up to 24 nautical miles; and beyond that up to 200 nautical miles is the Exclusive Economic Zone of India.
- Responsible for marine **environment protection in maritime zones** of India. **Hence, statement 3 is correct.**
- Acts as a coordinating authority for responding to oil spills in Indian waters.
- Protects India's maritime interests and enforces its maritime law.

#### 6. Consider the following statements about Nano Liquid Urea Fertilizers

1. Nano Liquid Urea Fertilizers reduces the use of urea by upto 50%.
2. India is the first country globally to start commercial production of Nano Urea.

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 : c

- Two state-owned fertilizer firms, National Fertilisers Limited (NFL) and Rashtriya Chemicals and Fertilisers Ltd (RCF) signed a MoU with fertilizer cooperative, IFFCO to push production of Nano urea liquid.
- India has become the first country globally to start commercial production of Nano urea.
- There is an imbalanced use of fertilizers in India and this is deteriorating the health of soil.
- Imbalanced use is also causing water and air pollution.

- More production of Nano urea liquid will help in reducing the use of urea by up to 50% and it will also protect the health of the soil.
- The Nano urea liquid is expected to potentially replace 137 lakh tonnes of conventional urea usage by 2023.
- Even cost wise, this is cheaper than the conventional urea.

### **Mains Practice Questions**

**1. Describe the procedure of amendment of the Constitution of India under Article 368. Why this amendment procedure has been often criticized? (150 words)**

#### **Approach**

- Briefly mention the Constitutional provisions regarding amendment of the Constitution
- Explain the procedure of amendment of the Constitution of India under Article 368
- Give reasons as to why this procedure has been criticized often.

**2. The linguistic reorganization of states resulted in rationalizing the political map of India without seriously weakening its unity. Examine. (250 words)**

#### **Approach:**

- Briefly discuss the linguistic reorganisation of states in India.
- Describe how linguistic reorganisation has resulted in administrative efficacy and strengthened Indian unity.
- Discuss a few challenges related to linguistic reorganisation.

