

**WEEKLY CURRENT AFFAIRS MAGAZINE for**



**U.P.S.C. - C.S.E.**

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**16 March to 22 March**



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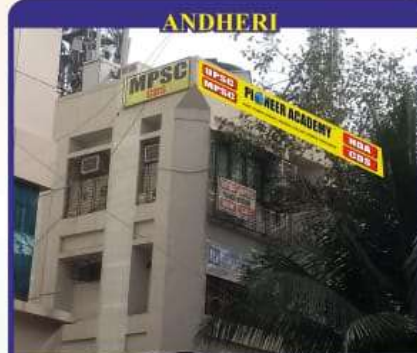
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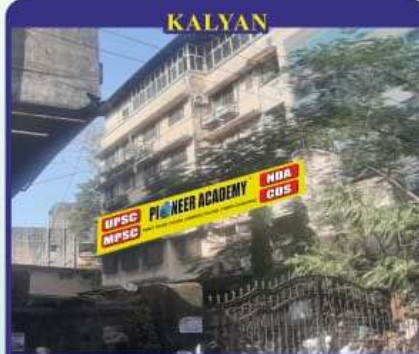
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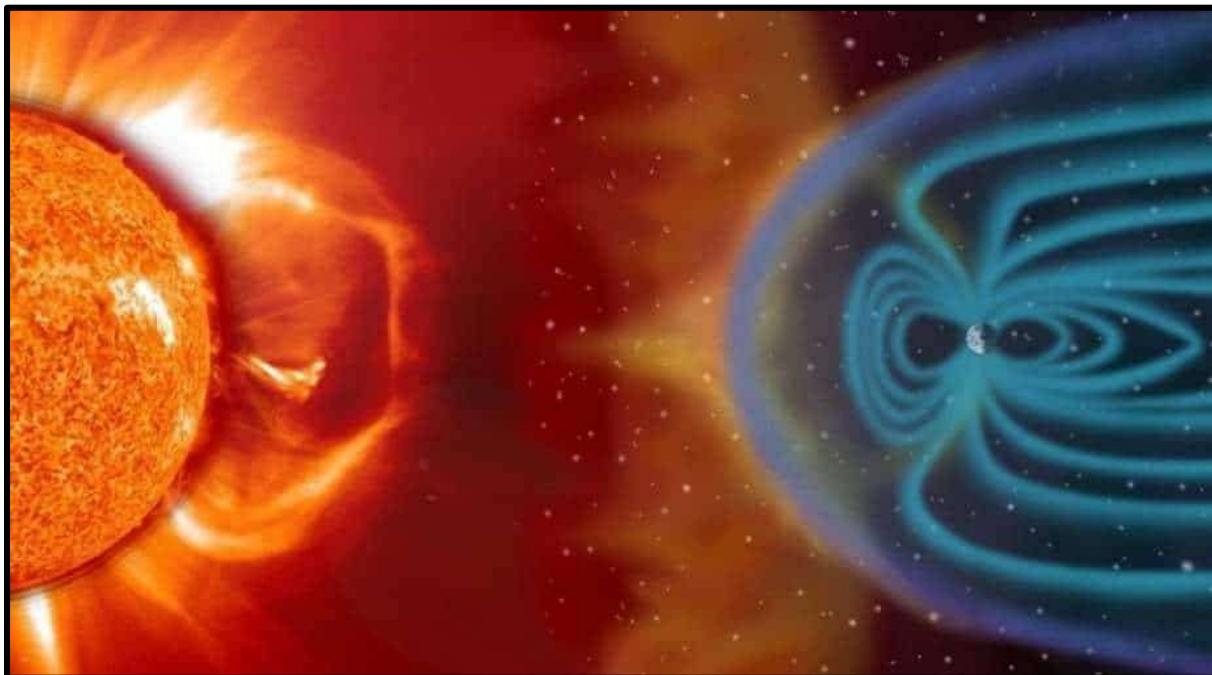
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*Success is born of action...*

## **Topic 1. SOLAR STORMS**

*Importance for Prelims: Science and Tech*



### **What are solar storms?**

- Just as the sun keeps sending us light and heat, it also throws out a lot of alternative material in all directions, together with towards Earth.
- In fact, there is a constant stream of charged particles — electrons and protons — that escape from the sun's atmosphere (corona) and spread across space.
- This stream is called 'solar wind'.
- Sometimes, a bubble of gas gets burped out of the sun.
- Imagine it sort of a bubble escaping from a bucket of soap water.
- This bubble, usually containing billions of tonnes of matter, ploughs through the solar wind and travels in a random direction at a speed of many million kilometres per hour. Such a bubble that has cut loose from the sun's corona is called the 'coronal mass ejection' (CME) or 'solar storm'.

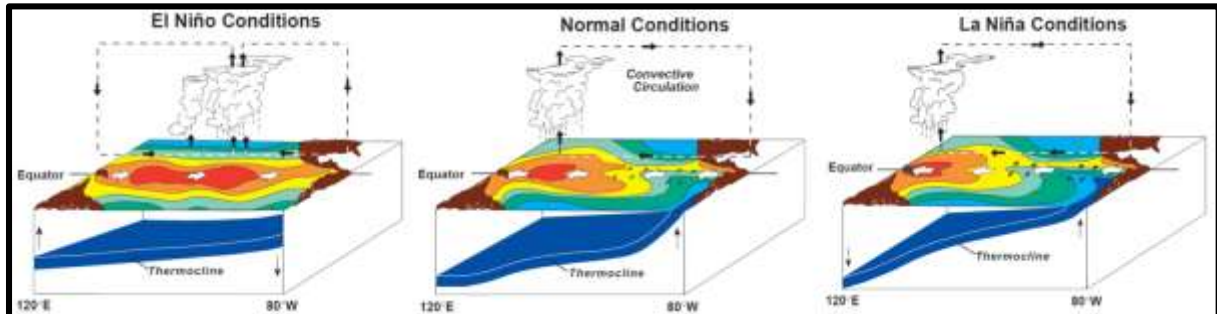
### **Why do they happen?**

- The sun is spinning fast and this is spin creates complex swirls and eddies. generally the matter gets engulfed in loops of the magnetic field, that gets ejected violently.
- **Earth's Magnetic Field:** Earth is protected from the solar wind by our magnetic field- magnetosphere, which deflects the particles away.
- The magnetic field, on the sun-facing side of Earth, extends to about 65,000 km, well within the range of Earth's satellites.
- (Actually, the magnetic field on the day side gets compressed to 65,000 km by the solar winds; on the night side, the magnetosphere is much bigger.)
- **Impact of solar storms:** Occasionally, a large solar storm might cut loose and hurl towards Earth.
- Some satellites could be lost.
- As for Earth-based systems, like power grids and telecom networks, even though a big CME hits, only countries within the higher and lower latitudes are in danger of getting affected.
- Being near the equator, India is relatively safe.



## Topic 2. STUDY FINDS CLIMATE VARIABILITY MAY EXPLAIN ANNUAL SPIKE IN OZONE-DESTROYING GAS

*Importance for Prelims: Environment*



Forest fires fuelled by the El Niño Southern Oscillation (ENSO) phenomenon might be responsible for the short-term spikes in methyl bromide, a known destroyer of the ozone layer. El Niño–Southern Oscillation (ENSO) is an irregular periodic variation in winds and the ocean surface temperatures over the tropical eastern Pacific Ocean, affecting the climate of much of the tropics and subtropics.

- The warming part of the ocean temperature is known as El Niño and also the cooling part as La Niña.
- Southern Oscillation, in oceanography and climatology, could be a coherent inter annual fluctuation of atmospheric pressure over the tropical Indo-Pacific region.
- The Southern Oscillation is that the accompanying element, coupled with the ocean temperature change: El Niño is accompanied by high air surface pressure in the tropical western Pacific and La Niña with low air surface pressure there.
- El Niño and Southern Oscillation coincide most of the times therefore their combination is called ENSO – El Niño Southern Oscillation.
- **Methyl Bromide:** Methyl bromide is an odourless, colourless gas that has both natural and industrial sources.
- It naturally enters the atmosphere from oceans and forest fires.

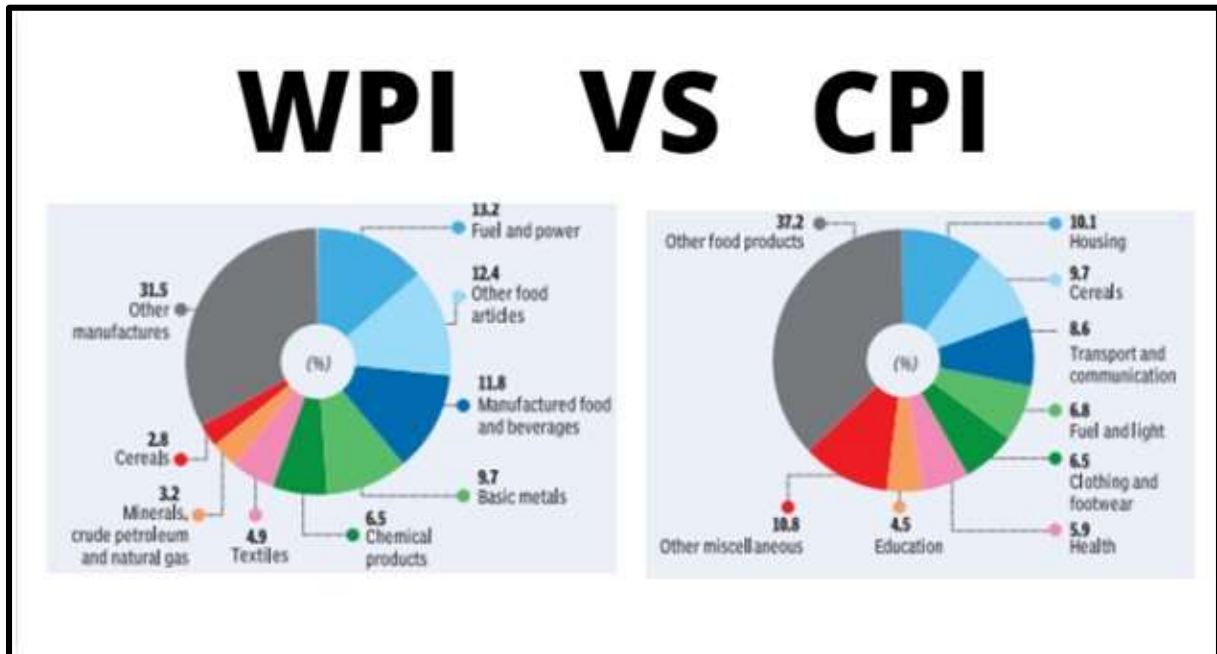
- Human activities can release the gas too.
- About 50-95 per cent of the substance eventually makes it back into the atmosphere, according to the United States Environment Protection Agency.
- It is used to control a wide variety of pests in agriculture and shipping, including fungi, weeds, insects, nematodes (or roundworms), and rodents. And can be used as quarantine fumigant at ports.
- Methyl bromide is also an ozone-depleting substance.
- India has signed and ratified the Montreal Protocol, and is committed to phasing out methyl bromide and other ozone-depleting substances (ODS) by 2015.
- **Ozone:** Ozone occurs in two layers of the atmosphere.
- The layer closest to the Earth's surface is the troposphere.
- Here, ground level or "bad" ozone is an air pollutant that is harmful to breathe and it damages crops, trees and other vegetation.
- The stratosphere or "good" ozone layer extends upward from about 6 to 30 miles and protects life on Earth from the sun's harmful ultraviolet (UV) rays.
- "Good" ozone is gradually being destroyed by man-made chemicals referred to as ozone-depleting substances (ODS), including chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), halons, methyl bromide, carbon tetrachloride, and methyl chloroform.
- **Montreal Protocol:** Montreal Protocol is an international treaty designed to protect the ozone layer by phasing out the production of numerous substances that are responsible for ozone depletion.
- It was agreed on 16 September 1987, and entered into force on 1 January 1989.
- Since then, it's undergone 9 revisions, in 1990 (London), 1991 (Nairobi),

1992 (Copenhagen), 1993 (Bangkok), 1995 (Vienna), 1997 (Montreal), 1998 (Australia), 1999 (Beijing) and 2016 (Kigali) As a results of the international agreement, and the ozone hole in Antarctica is slowly recovering.

- Climate projections indicate that the ozone layer can return to 1980 levels between 2050 and 2070.

### Topic 3. DIVERGENCE BETWEEN CPI AND WPI

*Importance for Prelims: Economy*



One striking feature of the Indian scenario is that the difference between inflation as measured by the WPI and that evident in the consumer price index (CPI) WPI inflation throughout the present year, in contrast to the trends observed in CPI-C inflation, has shown an increasing trend, and remained high.

- Between June 2019 and February 2021, wholesale inflation was lower than retail inflation, while between March 2021 and December 2021, wholesale inflation remained above the retail inflation.
- While on the one hand, low food inflation pulled down CPI, on the other hand high energy and input prices pulled up WPI based inflation rate The annual increase in the WPI was more than 13 per cent; the CPI increased at less than half that rate Divergence between CPI and WPI Cause of divergence between CPI and WPI Base Effect: A part of the high inflation in WPI being witnessed currently could be because of a low base in the previous year.
- Consequent to the impact of the COVID-19 pandemic, production



activity remained muted in 2020-21 and world crude oil prices reached record lows because of lack of demand.

- Therefore, the WPI based inflation rate touched a low of 1.3 per cent in 2020-21.
- With economic activity picking up in 2021- 22 and edging up of global crude oil prices, the low base of 2020-21 led to WPI inflation reaching a peak of 14.2 per cent in November 2021 and 12.5 per cent during April-December 2021 (as against 0.04 per cent during April-December 2020-21).
- Difference in the weight of various items To begin with, the WPI excludes services altogether, covering only produced goods.
- within merchandise, the CPI gives a much higher weight to food articles, which account for nearly forty six per cent of the basket, compared to only fifteen per cent in the WPI.
- (In fact, the CPI for rural areas gives as much as 54 per cent weightage to food and beverages, while in urban areas it is 36 per cent.)
- Weights of items in CPI-C are based on the consumption pattern of consumers and households, in case of WPI series, weights of the item basket are derived by calculating the net traded value to the domestic production by adding net imports to domestic production While in CPI, food and beverages have the highest weight (45.9), in WPI, the manufactured group has the highest weight (64.2)-food inflation witnessed a decline in 2021 and was 4.0 per cent in December 2021, food articles have a weight of only 24.4 in the WPI (Food articles in primary group plus those in manufactured group).
- WPI (Food articles in primary group and those in factory-made group). The weight of the fuel group is much lower in the CPI (6.8) as compared to WPI (13.2).

- Fuel in CPI is also partially reflected under miscellaneous group under ‘transport and communication’-with reopening up of the economies worldwide, unanticipated increase in energy prices and emergence of industrial input value pressure and high freight prices led to a sharp spike in WPI inflation in 2021.
- In November 2021, a reduction in central excise duty was announced for diesel and petrol.
- While this cut in central excise duties and subsequent reduction in VAT by majority of the states had a dampening impact on retail costs of diesel and petrol, wholesale prices continued to reign high resulting in the widening of the divergence. The CPI basket consists of services like housing, education, medical care, recreation etc. which aren't a part of WPI basket.
- The manufactured sector not only uses crude oil but also several other imported items as inputs such as iron ore, aluminum, other metals and cotton.
- The intermediate and inputs items of WPI, not a part of CPI, play a role in its divergence from CPI.
- (Domestic inflation as measured through WPI of related items have been highly correlated with growth in the international costs of these commodities.
- The inflation in domestic aluminum and copper prices is positively and highly correlated with international prices).
- India is a major producer, consumer, and exporter of cotton.
- Therefore, the prices of domestic cotton and international prices are closely linked leading to a high correlation (0.9) between WPI inflation in cotton yarn and international inflation in raw cotton.
- Similarly, the movement in prices of non-tradable items included in the

CPI basket widens the gap between WPI and CPI movements.

- The relative price trends of tradable vis a vis non-tradable is an important explanatory factor for divergence in the two indices in the short term.
- The high inflation rate reported in the factory-made group in the WPI is thus significantly attributable to “imported inflation” resulting from high costs of imported inputs.
- High freight costs and longer delivery times further exacerbated the price pressure on imported inputs.
- **Low Demand:** The Another reason for divergence is the lagging demand pick up.
- While production has gradually picked up in 2021-22 to reach the pre-pandemic levels, consumption demand is yet to normalise fully.

## **Topic 4. GREEN BURIAL**

### ***Importance for Prelims: Environment***

The 'green' burial trend gripping the

### **US WHAT IS GREEN BURIAL?**

- Green (or natural) burial emphasizes simplicity and environmental sustainability.
- The body is neither cremated nor prepared with chemicals such as embalming fluids.
- It is simply placed in a biodegradable coffin or shroud and interred without a concrete burial vault.
- The grave site is allowed to return to nature.
- The goal is complete decomposition of the body and its natural return to the soil.
- Only then can a burial truly be “ashes to ashes, dust to dust,” a phrase so often used when we bury our dead.

### **WHY CHOOSE GREEN BURIAL?**

- Most burials before the mid-19th century were conducted this way, as are several Jewish and Muslim burials today.
- Green burials are enjoying a resurgence in popularity, for variety of reasons: the idea of wrapping the body in a shroud or placing it in a plain, unadorned coffin appeals to people who prefer their burial arrangement to be simple, natural and unpretentious.
- Lower cost. Because green burials don't involve embalming, fancy caskets, or concrete vaults, they will be a very efficient alternative to conventional burials, lowering the price by thousands of dollars.
- If the family supplies their own shroud or coffin, the cost can be further reduced.
- Conserving natural resources.

- Every year U.S.A. cemeteries bury over thirty million board feet of hardwood and 90,000 tons of steel in caskets, 17,000 tons of steel and copper in vaults, and 1.6 million tons of reinforced concrete in vaults.
- With green burial, fewer resources are used. Eliminating hazardous chemicals.
- For some, forgoing the embalming process is the main attraction, since embalming fluid contains formaldehyde, a respiratory irritant and known carcinogen.
- In the US about 5.3 million gallons of embalming fluid are used every year, and funeral home workers are exposed to it routinely.
- Preserving natural areas. Love of nature and a desire for “eternal rest” in a forever-wild meadow or forest are frequently-cited reasons for choosing green burial.
- The burial sites restore or preserve a natural landscape populated by native trees, shrubs and wildflowers; the sites provide food and refuge to birds and other wildlife.
- The foremost conservation-intensive green cemeteries don't use fertilizer, pesticides, or herbicides.
- A green cemetery can be an important component in the acquisition and conservation of native habitats.



## **Topic 5. WORLD WATER DEVELOPMENT REPORT 2022**

### ***Importance for Prelims: Geography***

The 2022 edition of the United Nations World Water Development Report (UN WWDR 2022) entitled ‘Groundwater: Making the invisible visible’ was released on March 21, 2022.

- It describes the challenges and opportunities related to the development, management and governance of groundwater across the world.
- **Facts:** The report is produced annually by the United Nations Educational Scientific and Cultural Organization World Water Assessment Programme (WWAP) and released by UN-Water.
- **Important findings in the report:** India is the largest groundwater-user globally, at an estimated 251 cubic kilometres per year, followed by China and Pakistan.
- India uses eighty nine per cent of the total groundwater abstracted per annum for agriculture — also the highest in the world.
- As many as eight of the 10 countries with the highest shares of global groundwater withdrawal volume are in Asia and two in North America.
- These ten countries account for seventy five per cent of the total groundwater use.
- The other Asian countries in the list are Iran, Indonesia, Bangladesh, Saudi Arabia and Turkey.
- It is estimated that about 11 per cent (or 25 km<sup>3</sup> / year) global groundwater depletion is embedded in international crop trade that contributes to large-scale depletion of aquifers overlaid by productive land.
- Wheat, maize, rice, sugarcane, cotton and fodder are the principal crops contributing to groundwater depletion.
- These crops are heavily traded, indicating extremely unsustainable water

footprints from intensive export.

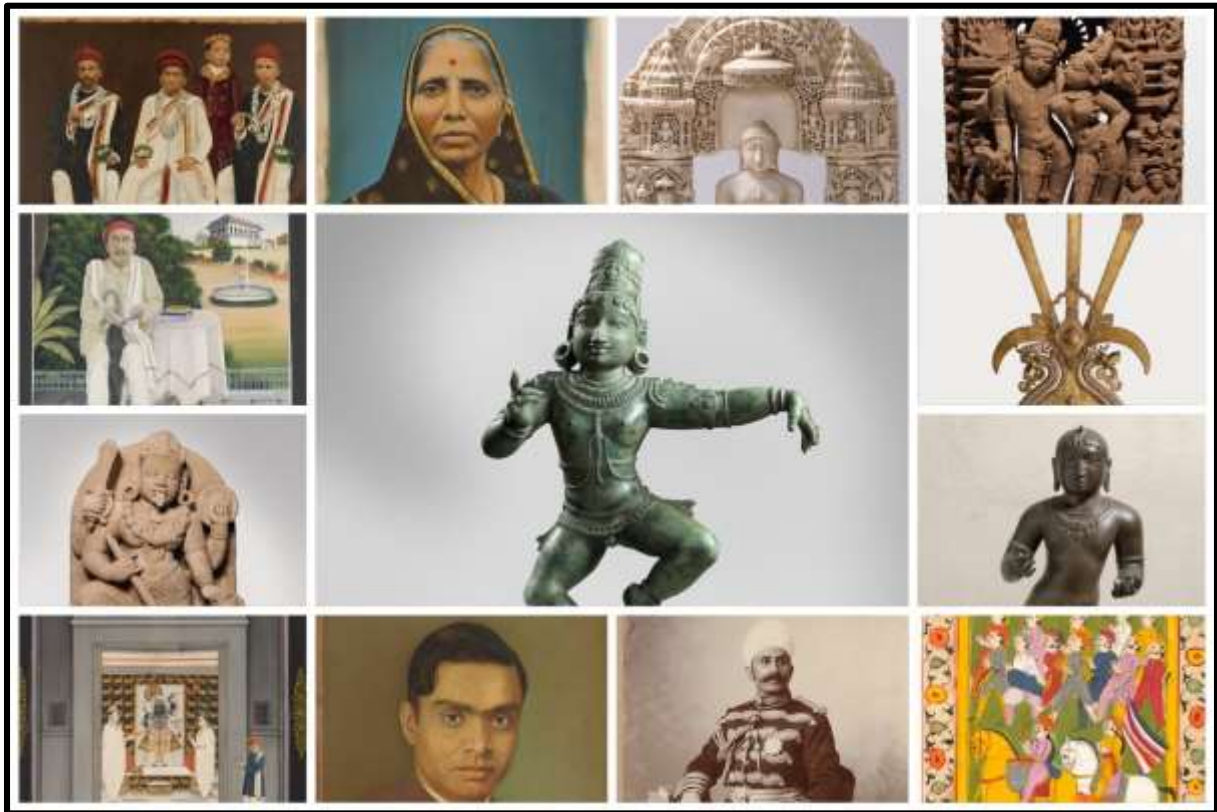
- Five countries account for about 70 per cent of the unsustainable water footprint: China, India, Iran, Pakistan and US Present status of groundwater: Further, as per groundwater assessment 2020 conducted jointly by Central Ground Water Board and State Governments, total annual groundwater extraction for all uses in the country is around 245 Billion Cubic Metre (BCM) which includes 218 BCM for agriculture use.
- This Department has issued guidelines on 24 Sep 2020 with pan-India applicability for regulation and control of ground water extraction in the country.
- Water being a State subject, the guidelines advocate for a participatory approach for sustainable ground water management in agriculture sector as well as working towards crop rotation, diversification & other initiatives to reduce over-dependence on groundwater.
- Atal Bhujal Yojana (Atal Jal) is being implemented in certain water stressed areas of the country, which includes activities like preparation of water security plan at Gram Panchayat level in participatory mode by the involving communities to use available groundwater and surface water in an efficient manner.
- Department of Agriculture & Farmers Welfare (DA & FW) is implementing Per Drop more Crop element of Pradhan MantriKrishiSinchayee Yojana (PMKSY) which is operational from 2015-16.
- The PMKSY – Per Drop more Crop in the main focuses on water use efficiency at farm level through micro irrigation (drip and sprinkler irrigation system) to reduce the extraction of groundwater.
- The Annual Ground Water Extraction for all uses is 249 BCM, out of which, 221 BCM (89%) utilized for irrigation purposes.
- Ground water levels in parts of components of the Country are declining

due to continuous withdrawal necessitated by increased demand of fresh water for various uses, vagaries of rain, increased population, industrialization & urbanization etc.

- Depleting water table in some areas may have some effect on irrigation activities, however, Government has initiated a number of measures for supply side and demand side management to improve the water table in water stressed areas.
- Water being a State subject, initiatives on sustainable ground water management is primarily States' responsibility.
- A number of States have done notable work in the field of water management/conservation.
- Of these, mention can be manufactured from 'Mukhyamantri Jal Swavlamban Abhiyan' in Rajasthan, 'Jalyukt Shibir' in Maharashtra, 'Sujalam Sufalam Abhiyan' in Gujarat, 'Mission Kakatiya' in Telangana, 'Neeru Chettu' in Andhra Pradesh, 'Jal Jeevan Hariyali' in Bihar among others Government of India has launched the Jal Shakti Abhiyan which is a time bound campaign with a mission mode approach intended to boost water availableness as well as ground water conditions in the water stressed blocks.
- The 5 important water conservation interventions are- the water conservation and the rainwater harvest, renovation of traditional and other water bodies/tanks, reuse, bore well recharge structures,
- Watershed development and intensive afforestation.
- **Additional information:** Virtual Water Virtual water is the volume of water used to make a product, and is the sum of the water use in the various steps of the production chain.

## Topic 6. AUSTRALIA RETURNS 29 ANTIQUITIES TO INDIA

*Importance for Prelims: History*



Earlier this year, it was reported that the govt has been instrumental in bringing back some two hundred stolen antiquities to India from across the world.

- Since 2014, 228 cultural heritage objects are retrieved from completely different countries whereas the majority of them (178) have come from the US.
- Now, Australia has handed over as many as 29 antiquities to India.
- Next major recoveries expected to reach Delhi are a quintessential idol of Buddha Avalokiteshwara Padamapani from Italy, the 10th century stone idol of Goat-headed Yogini from UK, and 500-year-old Hanuman idol, which was stolen from a Tamil Nadu temple, from the US.
- **Importance:** This is often seen as a boost to India's bid to get back the country's heritage from across the world.

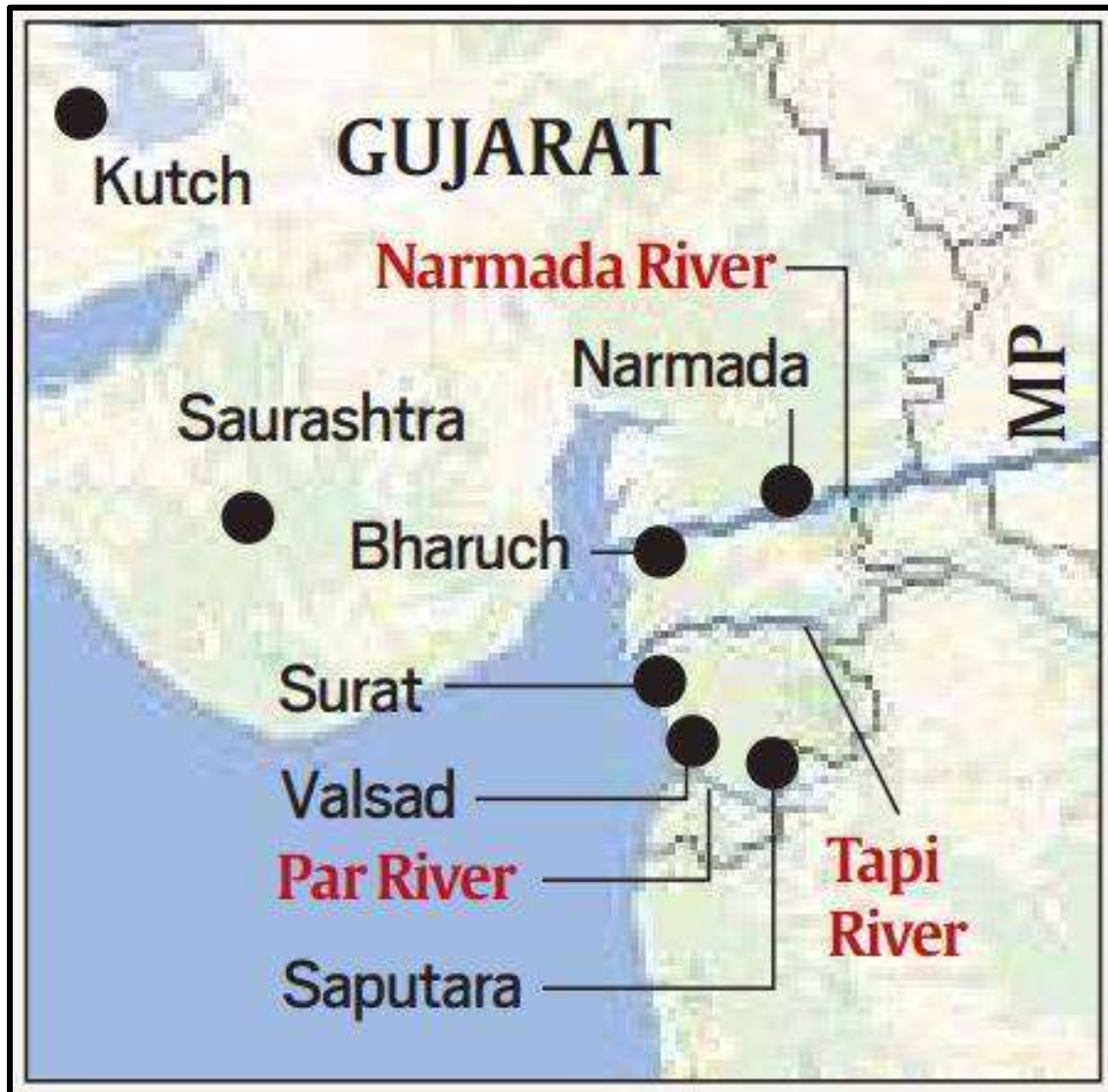
- **About the antiquities returned:** The Archaeological Survey of India (ASI) has received 29 antiquities including idols and paintings dating back to the 9th-10th century from Australia.
- The cache of articles received from Australia comprises sculptures and paintings made from sandstone, marble, bronze, brass and paper as well as stone sculpture. Prominent among them are
  1. **Arch of a Jain Shrine:** It is a beautifully embellished frieze in marble. Two Jaina Tirthankara are seen standing on either sides of the panel. Possibly, the Jaina Tirthankar seated may be identified as Ajitanath, the second Tirthankara.
  2. **Shiva Bhairava:** A fierce manifestation of Shiva, related to annihilation. In Trika system Bhairava represents Supreme Reality, similar to Para Brahman. In Hinduism, Bhairava is also known as Dandapani.
  3. **Sambandar:** It is a bronze statue of seventh-century child saint, Sambandar who devoted his life to composing hymns in praise of Lord Shiva.
  4. **Chandikesvara:** It is a statue of 12 century Saint Chandikesvara which shows a humble devotion to the servitude of Shiva.
  5. There are some paintings of Shiva-Parvati, Yaksha Bhairava, Kali Yantra, Varaha rescuing the Earth Goddess etc.
- **Additional information:** The Archaeological Survey of India (ASI) under the Ministry of Culture is the premier organization for archaeological researches and protection of the cultural heritage of the nation.
- For the maintenance of ancient monuments and archeologic sites and remains of national importance the entire country is split into twenty four circles.
- **Role of the ASI:** Maintenance of ancient monuments and archaeological sites and remains of national importance is the prime concern of the ASI.



- It regulates all archaeological activities in the country as per the provisions of the Ancient Monuments and Archaeological Sites and Remains Act, 1958.
- It also regulates Antiquities and Art Treasure Act, 1972.

## Topic 7. PAR TAPI NARMADA RIVER-LINKING PROJECT

*Importance for Prelims: Geography*



The tribals in Gujarat held a public meeting in Kaprada in Valsad district to protest against the Centre's Par Tapi Narmada (PTN) river-linking project.

- **Reason for Protest:** According to a report by the NWDA, about 6065 ha of land area will be submerged due to the proposed reservoirs.
- A total of 61 villages will be affected, of which one will be fully submerged and the remaining 60 partly.
- The districts where the project will be implemented are largely dominated, by tribals who fear displacement.

- **Timeline of the Project:** A memorandum of Understanding (MoU) was signed between Gujarat, Maharashtra and therefore the central government on May 3, 2010, that envisaged that Gujarat would get the advantage of the Par Tapi Narmada link project through en-route irrigation from the link canal and in the drought-prone Saurashtra kutch region by way of substitution.
- Detailed Project Report (DPR) for the project was prepared by the National Water Development Agency (NWDA) in 2015 and modified on the intervention of the Gujarat government, through letters the then chief minister wrote in 2016 Gujarat government had, in December 2016, proposed providing a pipeline system instead of open canals to “avoid/minimise the land acquisition in tribal areas” also on reduce evaporation and seepage losses.
- Recently, Finance Minister in her Budget Speech said that five river linking projects will be taken up after consensus among states – it includes Par Tapi Narmada river-linking project
- **About Par Tapi Narmada river-linking project:** Par Tapi Narmada Link proposes to transfer water from the water surplus regions of Western Ghats to the water deficit regions of Saurashtra and Kutch (Gujarat).
- It proposes to link three rivers — Par, originating from Nashik in Maharashtra, Tapi from Saputara and Narmada originating in Madhya Pradesh.
- The link mainly includes the construction of seven dams (Jheri, Mohankavchali, Paikhed, Chasmandva, Chikkar, Dabdar and Kelwan), three diversion weirs (Paikhed, Chasmandva, and Chikkar dams), two tunnels (5.0 kilometers and 0.5 kilometers length).
- 395-kilometre long canal (205 kilometre in Par-Tapi portion including the length of feeder canals and 190 km in Tapi-Narmada portion), and six

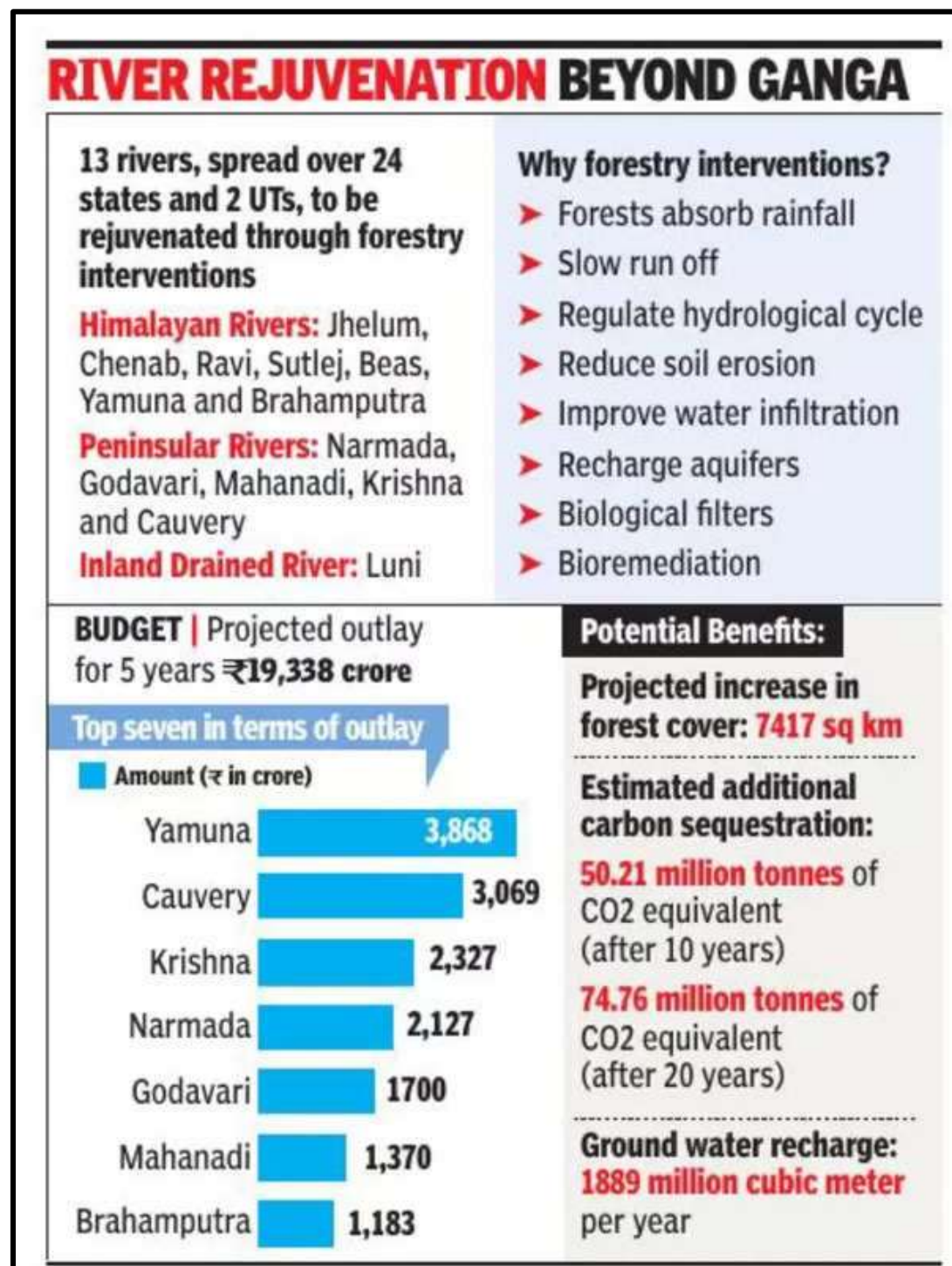
powerhouses.

- **About Narmada River** The Narmada River is also known as the **Rewa River**. Narmada is that the largest west flowing river of the peninsular region flowing through a rift valley between the Vindhya range on the north and therefore the Satpura range on the south.
- It rises from Maikala range near Amarkantak in Madhya Pradesh.
- It drains a large area in Madhya Pradesh besides some areas in the states of Maharashtra and Gujarat.
- The river near Jabalpur (Madhya Pradesh) forms the Dhuandhar Falls.
- There are several islands in the estuary of the Narmada of which Aliabet is the largest.
- **Major Tributaries:** Hiran, Orsang, the Barna and the Kolar.
- The major Hydro Power Projects in the basin are Indira Sagar, Sardar Sarovar
- **About Tapi River** The Tapi River is located in Madhya Pradesh.
- It originates from the Multai reserve forest.
- The river is flowing through the states of Madhya Pradesh, Maharashtra, and Gujarat.
- Kakrapar Dam, Ukai Dam, Girna Dam are the major projects on this river.
- It is rises from Maikala range near Amarkantak in Madhya Pradesh. Kakrapar Dam, Ukai Dam, Girna Dam are the most important projects on this river.



## Topic 8. INDIA PROPOSES RIVER REJUVENATION THROUGH PLANTATIONS

*Importance for Prelims: Environment*



The government of Republic of India has recently released a river rejuvenation



programme value Rs. 193 billion through a massive focus on the plantation activities.

### About the Programme:

- Government of India is planning an ambitious programme for the rejuvenation of 13 major Indian rivers through forestry interventions at a cost of nearly Rs. 19,300 crores (Rs. 193 billion).
- 13 major rivers include – Jhelum, Chenab, Ravi, Beas, Sutlej, Yamuna, Brahmaputra, Luni, Narmada, Godavari, Mahanadi, Krishna, and Cauvery Funded by the National Afforestation & Eco-development Board of the environment ministry (MoEFCC), were prepared by the Dehradun-based Indian Council of Forestry Research & Education (ICFRE).
- The programme is expected to be executed through the state forest departments as nodal department and with the convergence of schemes of different line departments in the states towards the activities proposed in the DPRs and funding support from the government of India.
- The plan is proposed to be spread over a period of 5 years with a provision for extra time for the maintenance of plantations.
- **Need for the Programme:** Deforestation and forest degradation, scanty rainfall, flash floods, landslides, bank erosion, faulty agriculture and horticulture practices, soil erosion, excessive groundwater extraction, speedy urbanisation, unregulated floodplain, waste dumping, the discharge of effluents, unregulated tourism, pilgrimage, unregulated sand mining, and riverside encroachment are some of the problems that are impacting the rivers in the country.
- Forest and watercourse ecosystems are inter-connected and forests absorb rainfall, leads to slow runoff, regulate the hydrological cycle, reduce soil erosion, improve water infiltration rate, recharge aquifers, etc.
- **Intervention through the Programme:** Activities such as afforestation,



soil and moisture conservation structures, grassland and pasture development, cultivation of medicative and aromatic plants, management of invasive and alien species, forest fires whereas in agricultural landscapes it proposes agroforestry (bund and block plantations), high-density plantations, fodder plantations and plantation of fruit trees.

- In the urban landscapes, they call for the riverfront development, eco-park development, industrial and the educational estate plantations, and avenue plantations.
- **Also includes removal of lantana from degraded forests**
- **Benefits of Programme:** Increasing the green cover DPRs projects forest cover after the programme could be about 7,417.36 square kilometres Sequestering carbon dioxide carbon-dioxide sequestration to the tune of 50.21 million tons of carbon dioxide equivalent once ten years and 74.76 million tons of carbon dioxide equivalent after twenty years.
- Recharging water table programme would lead to about 1,889.89 million cubic metres of groundwater recharge every year Containing soil erosion Sedimentation reduction of about 64,83,114 cubic metres every year Help India achieving the international climate commitments such as the creation of an additional carbon sink of 2.5 -3 billion tons of CO<sub>2</sub> equivalent through additional forest and tree cover by 2030 made just before the 2015 Paris Climate Agreement, restoration of 26 million hectares of degraded lands by 2030 as a land degradation neutrality target under UNCCD (United Nations Convention to Combat Desertification) and halting the biodiversity loss by 2030 under CBD (Convention on Biological Diversity) and Sustainable Development Goals.
- **Issues:** Top-down approach that even usurps the powers of the states As per the Forest Rights Act 2006, the ability to decide what happens on their landscapes belongs to Proposal completely unscientific as

afforestation has nothing to do with river rejuvenation Construction of big dams and then many smaller dams that cut off environmental flows, industrial and domestic pollution, and climate change-led glacier meltdown and extreme weather events are main reasons for degradation of river Way Forward: Stopping dam building, regulating effluents, controlling groundwater depletion that immediately affects the base flows in rivers

## Topic 9. NATIONAL BANK FOR FINANCING INFRASTRUCTURE AND DEVELOPMENT (NABFID)

*Importance for Prelims: Economy*

FUNDING INFRASTRUCTURE		
<p><b>Proposed framework</b> to allow private DFIs; RBI to issue licences</p> <p><b>NEED FOR DFI</b></p> <p>National Infrastructure Pipeline: <b>7,000 projects</b></p> <p>Total funding requirement till 2025: <b>₹111 lakh cr</b></p> <p><b>SHIELDING DECISIONS</b></p> <p>Full protection for decisions in good faith   Indemnity provided for decisions by key personnel</p> <p>No investigation by any agency sans prior govt nod   Performance review every 5 yrs by an external agency</p>		<p><b>PROPOSED STRUCTURE</b></p> <p><b>NaBFID</b> to be headquartered in Mumbai   <b>Centre</b> to hold at least 26% equity at all times   <b>It can</b> set up subsidiaries or JVs or branches in India or overseas</p> <p><b>Chairperson</b>, to be appointed by Centre in consultation with RBI   <b>Salaries, allowances</b> guided by market standards   <b>Set up</b> trusts under the Indian Trusts Act, 1882 for establishment of funds</p> <p><b>FINANCIAL BACKING</b></p> <p>Govt may guarantee its bonds, debentures or loans on request   Concessional rate of fees, not exceeding 0.1% for govt guarantee   Hedging cost for foreign borrowings to be reimbursed fully or partially</p> <p> Govt to provide 10-year tax holiday to the public sector DFI; 5yr to private ones   Borrow money from RBI repayable on demand or on expiry of fixed periods</p>

NBFID was announced in the Budget 2021. The National Bank for Financing Infrastructure and Development Bill, 2021 was introduced in Lok Sabha on March 22, 2021.

- The Bill seeks to establish the national bank for financing Infrastructure and Development (NBFID) because the principal development financial institution (DFIs) for infrastructure financing.
- NBFID will be set up as a corporate body with authorised share capital of one lakh crore rupees. Shares of NBFID is also held by:
  - central government,
  - multilateral institutions,
  - sovereign wealth funds,
  - pension funds,

- v. insurers,
- vi. financial institutions,
- vii. banks, and
- viii. any other institution prescribed by the central government.
- Initially, the central government will own 100% shares of the institution which may subsequently be reduced up to 26%.
- **Objective:** To directly or indirectly lend, invest, or attract investments for infrastructure projects located entirely or partly in India.
- 
- Development objectives include facilitating the development of the market for bonds, loans, and derivatives for infrastructure financing.
- **Functions of NBFID:** Extending loans and advances for infrastructure projects.
- Taking over or refinancing such existing loans.
- Attracting investment from private sector investors and institutional investors for infrastructure projects.
- Organising and the facilitating foreign participation in infrastructure projects.
- Facilitating negotiations with numerous government authorities for dispute resolution in the field of infrastructure financing.
- Providing consultancy services in infrastructure financing.
- **Source of funds:** NBFID could raise money in the type of loans or otherwise both in the Indian rupees and foreign currencies, or secure money by the issue and sale of various financial instruments including bonds and debentures.

**NBFID may borrow money from:**

- ix. central government,
- x. Reserve Bank of India (RBI),



- xi. scheduled commercial banks,
- xii. mutual funds, and
- xiii. multilateral institutions such as World Bank and Asian Development Bank.

- **Structure and management:** NBFID will be governed by a Board of Directors.

**The members of the Board include:**

- (i) the chairperson appointed by the central government in consultation with Reserve Bank of India, a Managing Director,
- (ii) up to 3 Deputy Managing administrators among others.
- A body constituted by the central government will recommend candidates for the post of the Managing Director and Deputy Managing Directors.
- The Board will appoint independent directors based on the recommendation of an internal committee.
- No investigation can be initiated against employees of NBFID without the prior sanction of
  - i. the central government in case of the chairperson or other directors, and
  - ii. the managing director in case of other employees.
- Courts will also require prior sanction for taking cognisance of offences in matters involving employees of NBFID.
- **Support from the Central Government:** The central government will provide grants worth Rs. 5,000 crore to NBFID by the end of the first fiscal year.
- The government will also provide guarantee at a concessional rate of up to 0.1% for borrowing from multilateral institutions, sovereign wealth funds, and other foreign funds.
- Costs towards insulation from fluctuations in foreign exchange (in

connection with borrowing in foreign currency) may be reimbursed by the government in part or full.

- Upon request by NBFID, the government may guarantee the bonds, debentures, and loans issued by NBFID.
- Other provisions The Bill also provides for any person to set up a DFI by applying to RBI.
- Reserve Bank of India could grant a licence for DFI in consultation with the central government.
- Reserve Bank of India will prescribe regulations for these DFIs.
- Development Financial Institution DFIs are set up for providing long-term finance for such segments of the economy where the risks involved are beyond the acceptable limits of commercial banks and other ordinary financial institutions.
- Not like banks, DFIs don't accept deposits from people.
- They source funds from the market, government, as well as multilateral institutions, and are often supported through government guarantees.
- The development finance institutions or the development finance companies are organizations owned by the govt or charitable institution to provide funds for low-capital projects or where their borrowers are unable
- Development finance institutions (DFIs) occupy an intermediary area between public aid and private investment, facilitating international capital flows.
- **Categories of DFIs:** National Development Banks such as IDBI, SIDBI, ICICI, IFCI, IRBI, and IDFC.
- Sector-specific financial institutions such as TFCI, EXIM Bank, NABARD, HDFC, and NHB. Investment Institutions such as LIC, GIC and UTI. State-level institutions are like State Finance corporations and SIDCs.

- **Types of Finances:** Medium (1-5 years) Long term (>5 years) List of important Development Finance Institutions (DFIs) IFCI: Industrial Finance Corporation of India was established in 1948. it's India's 1st Development Finance institution.
- **ICICI:** Industrial Credit and Investment Corporation of India limited was established in the year 1955 by an initiative of the world Bank and was the primary DFI in the private sector.
- **ICICI Limited** established its subsidiary company **ICICI Bank Limited** in 1944 and in 2002, **ICICI Limited** was merged into **ICICI Bank Limited**, making it the first universal bank of India.
- **IDBI:** Industrial Development Bank of India was set up in 1964 under RBI and was granted autonomy in 1976.
- The bank is responsible for ensuring adequate flow of credit to various sectors and was converted into a universal bank in 2003.
- **IRCI:** Industrial Reconstruction Corporation of India was started in 1971 to revive weak units and provide financial & technical help.
- **SIDBI:** Small Industries Development Bank of India was established in 1989 as a subsidiary of IDBI and was granted autonomy in 1998.
- **EXIM Bank:** Export-Import Bank was established in January 1982 to provide technical help and loan to exports.
- **NABARD:** National Bank for Agriculture and Rural Development was established in July 1982 on the recommendation of the Shivraman Committee and functions as a refinancing institution.
- **NHB:** National Housing Bank was established in 1988 to finance housing projects.
- After 2 important DFIs, namely, ICICI and IDBI were merged with their banking units, several functions of DFIs are now performed by commercial banks and these are actively performed by commercial banks

that finance projects like DFIs.

- Thus, commercial banks are known as universal banks which offer every kind of financial services under one roof.

## **Topic 10. WTO AGREEMENT ON AGRICULTURE AND THE PEACE CLAUSE**

### ***Importance for Prelims: Economy***

India has been accused of using the peace clause at the World Trade Organization (WTO), for exceeding the 10 per cent ceiling on support it offered its rice farmers without meeting the requirement of separately notifying it is public stock holding (PSH) programmes.

- India instance India assured WTO members, that its rice export, pegged at 21.4 million tonnes in 2021, were not sourced from its rice stocks for PSH programmes procured at the MSP (minimum support price).
- Peace Clause it had been agreed to at the WTO's Bali Ministerial meeting in December 2013 that allowed developing countries to breach grant limits on food crops subject to certain conditions being met associated with notifications on the PSH programmes and food security.
- Notification conditionalities mentioned in the Bali peace clause A separate notification on all PSH programmes involves giving details of all MSP operations and numbers associated with procurement, storage and disbursement not only for rice but other items covered under the programmes, including wheat and pulses.
- First country to invoke the peace clause India had earlier invoked the clause for 2018-19, when it became the first country to do so.
- India informed the World Trade Organization that the worth of its rice production in 2019-20 was \$46.07 billion while it gave subsidies value \$6.31 billion, or 13.7 % as against the permitted 10 per cent.
- India aforesaid that under its public stockholding programmes for food security purposes, rice, wheat, coarse cereals and pulses, among others, are acquired and released so as to fulfill the domestic food security needs of the country's poor and vulnerable population, and "not to impede



commercial trade or food security of others.

- For these reasons only the breach of the de minimise limits for the rice is covered by the peace clause.
- Government does not undertake exports on a commercial basis from public stockholdings.
- Additionally, open market sales of food grains from public stockholding are made provided the customer gives an undertaking of not exporting from such purchase.
- The 'peace clause' said that no country would be legally barred from the food security programmes even if the subsidy breached the limits specified in the World Trade Organization agreement on agriculture.
- It protects World Trade Organization's food procural programmes against action from world organization members just in case the subsidy ceilings – 10 % of the worth of food production in the case of India and the other developing countries – are breached.
- • The Agreement on Agriculture (AoA) is a World Trade Organization accord that was negotiated throughout the Uruguay round of the overall Agreement on Tariffs and Trade (GATT) and formally ratified in 1994 at Marrakesh, Morocco.
- The AoA came into effect in 1995.
- According to its provisions, developing countries were to complete their reduction commitments by 2000 and developing countries by 2004.
- The least Developed Countries weren't needed to make any reductions.
- The Agreement covers merchandise that are normally considered a part of agriculture however excludes forestry and fishery products and also rubber, sisal, jute, coir and abaca.
- The provisions of the WTO Agreement on Agriculture relate mainly to three broad categories

1. **Market Access Tariffication** – implies all the non-tariff barriers to be

- abolished and converted to tariffs. Tariff reduction – Developing countries were obligated to reduce tariffs by 24% in 10 years.
2. **Access opportunities** – Minimum access equal to 3% of domestic consumption in 1986-88 will have to be established for the year 1995 rising to 5% at the end of the implementation period.
  3. **Export subsidies** Developed countries are mandated to cut back their export subsidy volume by twenty first and expenditure by 12 months in 6 years, in equal installment (from 1986 –1990 levels). Developing countries need to reduce export subsidy volume by 14 July and expenditure by 24-karat gold over 10 years in equal installments.
  4. **Domestic support** It's call for reduction in domestic subsidies that distorts free trade and fair price. aggregate measurement of Support (AMS) is to be reduced by 20 Percent over a period of 6 years by developed countries and 13 Percent over a period of ten years by developing countries.

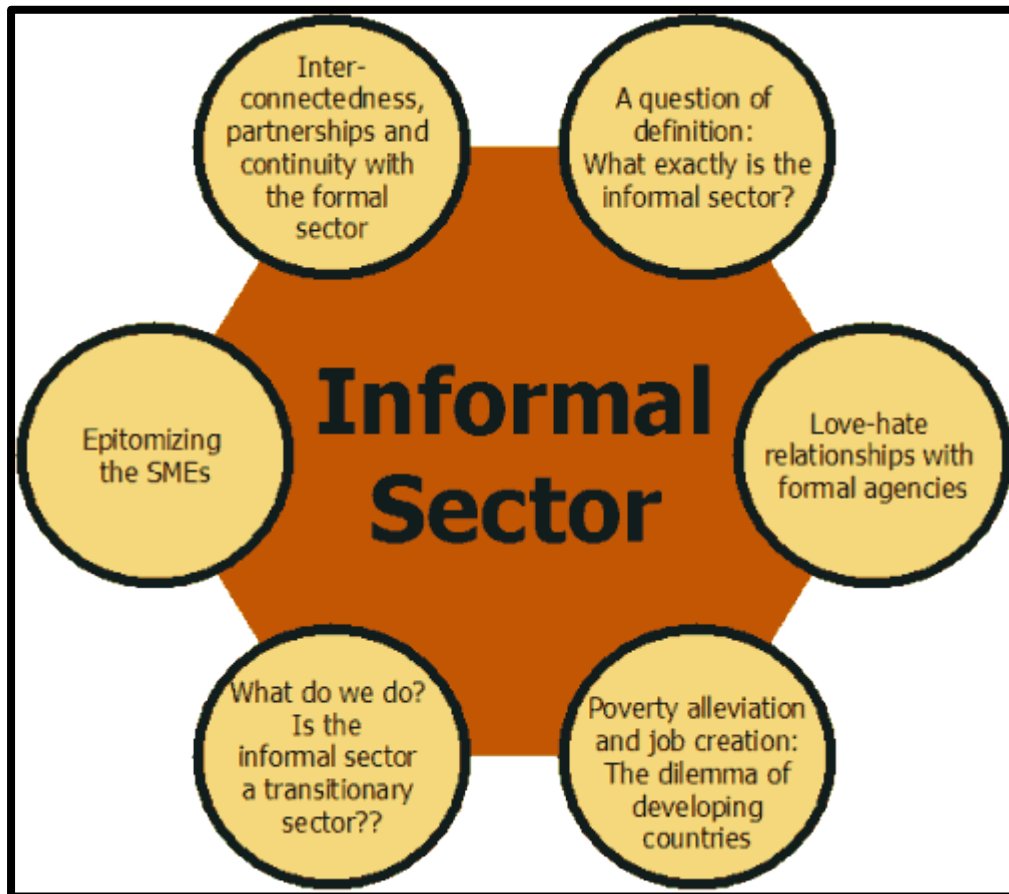
### **The Agreement on Agriculture (AoA) divides domestic support into**

1. **Trade distorting** – all trade distorting subsidies are placed under Amber box which is qualified in accordance with aggregate measure of Support (both product and non product specific). These include measures to support costs, or subsidies directly associated with production quantities. AoA stipulates reduction of total AMS by 20% for developed countries over a period of 6 years while by 13% over a period of 10 years by developing countries. Policies amount to domestic support under this category of less than 5% of value of production for developed countries and less than 10% for developing countries are excluded from any reduction commitments also known as de minimis subsidies.
- **Non trade distorting or minimal trade distorting** green box includes assistance given through environmental assistance programmes like research training and extension, marketing info, rural infrastructure etc..

- Support under it is excluded from any reduction commitments and is not subject to any upper limit.
- They have to be government-funded (not by charging consumers higher prices) and must not involve price support.
- They have a tendency to be programmes that aren't targeted at particular merchandise, and include direct income support for farmers that aren't related to current production levels or prices.
- They also embrace environmental protection and regional development programmes.
- Blue box this can be the “amber box with conditions”- designed to reduce distortion and includes direct payments in the form of price deficiency, direct payment to limit production.
- It is also exempted from reduction commitments but has an upper limit.
- Special and Differential box includes measures taken by developing countries, otherwise subject to reduction like investment subsidies, input subsidies.
- The ‘peace clause’ said that no country would be legally barred from food security programmes even though the subsidy breached the limits specified in the World Trade Organization agreement on agriculture.
- It protects India’s food procurement programmes against action from World Trade Organization members just in case the subsidy ceilings – 10 % of the value of food production within the case of India and other developing countries – are breached.

## Topic 11. INFORMAL SECTOR

*Importance for Prelims: Economy*



270 million informal sector workers join e-Shram portal.

- Informal Sector: ‘Informal economy’ represents enterprises that are not registered, where employers do not provide social security to employees.
- It is characterized as a range of economic units which are mainly owned and operated by individuals and employ one or more employees on a continuous basis.
- It includes farmers, agricultural labourers, owners of small enterprises and people working in those enterprises and also the self-employed who do not have any hired workers.
- National Accounts Statistics (NAS) defines the ‘unorganised sector’ additionally to the unincorporated proprietary or partnership enterprises, including enterprises run by cooperative societies, trust, private and

limited firms.

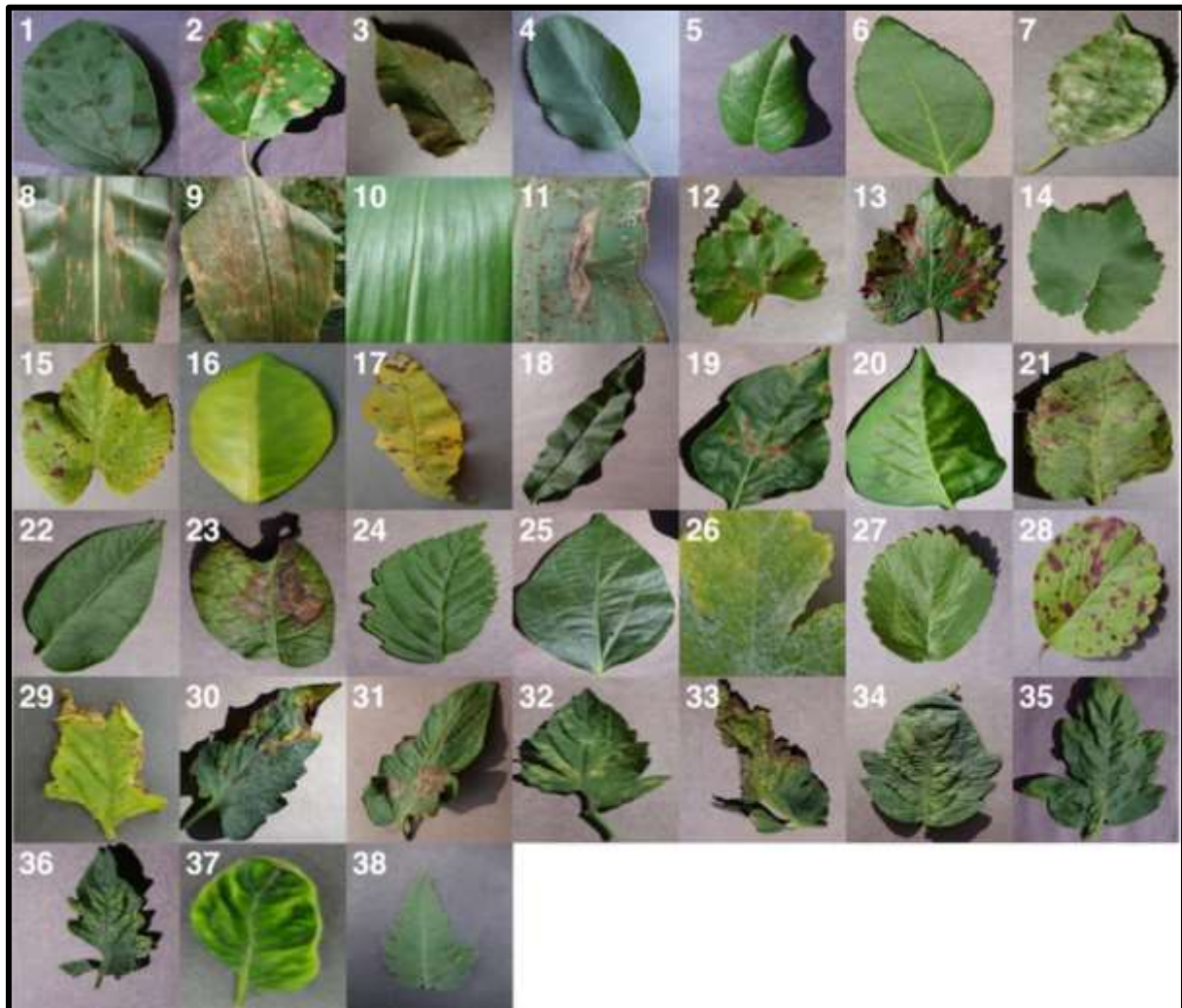
- The informal sector can, therefore, be considered as a subset of the unorganised sector.
- According to the Periodic Labour Force Survey, over ninety per cent of employees in India are informal employees.
- Out of these, those engaged in rural areas employees are significantly more than urban areas employees.
- **Social Security Measures for Informal Sector:** Unorganised Workers' Social Security Act, 2008 empowers the Central Government to provide Social Security benefits to unorganised sector employees by formulating suitable welfare schemes on matters relating to life and disability cover, health and maternity benefits, old age protection and any other benefit as may be determined by the Central Government.
- The State Governments are empowered to formulate suitable welfare schemes on the matters regarding housing, provident funds, educational schemes, ability upgradation, old age homes etc. g., Life and disability cover is provided through Pradhan Mantri Jeevan Jyoti Yojana (PMJJBY) and Pradhan Mantri SurkshaBima Yojana (PMSBY).
- The health and maternity benefits are addressed through Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (AB-PMJAY).
- For old age protection to unorganised sector workers including traders, shopkeepers and self- employed persons, the Government has launched two flagship schemes namely Pradhan Mantri Shram Yogi Maan-DhanYojana (PM-SYM) and the National Pension scheme for Traders, storekeeper and self-employed Persons (NPS- Traders).
- Besides, that there are other important schemes which are listed below:
  - i. PM Rozgar Protsahan Yojana
  - ii. Aam Aadmi Bima Yojana



- iii. Atal Beemit Vyakti Kalyan Yojana
- iv. The Central Sector Scheme for the Rehabilitation of Bonded Labourer
- v. Gatidhara Scheme for Self- employment
- vi. Grant-in-aid Scheme to the NGOs for welfare of women labour
- vii. Atal Pension Yojana
- viii. Rashtriya Swasthya Bima Yojana
- ix. Revised Integrated Housing Scheme
- x. Garib Kalyan Rozgar Yojana
- xi. Mahatma Gandhi BunkarBima Yojana
- xii. DeenDayal Upadhyaya Antyodaya Yojana (Day)
- xiii. Nirman Kamgar Awas Shayata Yojana

## Topic 12. PLANT DISEASES

### *Importance for Prelims: Science*



A new strain of Red Rot has been in the cause of worry in Uttar Pradesh's Sugarcane (Co-0238 variety) Production recently.

- A plant disease is typically defined as abnormal growth and/or dysfunction of a plant.
- Diseases are the results of the some disturbance in the normal life in the process of the plant.
- Diseases is also the results of living and/or non-living causes. biotic diseases are caused by living organisms (e.g., fungi, bacteria, and viruses).

**Following are the list of diseases caused by bacteria, fungi & virus.**

1. **Diseases caused by Bacteria:** Name of the Crop/Plant Bacterial Disease  
Beans, Rice Blight Cotton Black Arm Tomato Canker Potato Ring Rot,  
Brown Rot
2. **Diseases caused by Fungi:** Name of the Crop/Plant Fungal Disease  
Sugarcane Red Rot Bajra (Pearl Millet) Ergot, Green Ear, Smut Pigeon  
Pea, Cotton Wilt Ground Nut Tikka Rice Blast Paddy, Papaya Foot Rot  
Wheat Rust, Powdery Mildew Coffee Rust Potato Late Blight Grapes,  
Cabbage, Cauliflower, Bajra, Mustard Downy Mildew Radish, Turnip  
White Rust
3. **Diseases caused by Virus:** Name of the Crop/Plant Viral Disease Potato  
Leaf Roll, Mosaic Banana Bunchy Top Papaya Leaf Curl Tobacco  
Mosaic Carrot Red Leaf

## **Topic 13. ON 20 MARCH 1602: DUTCH EAST INDIA COMPANY WAS ESTABLISHED**

*Importance for Prelims: History*



The Dutch commercial enterprise led the Dutch to undertake voyages to the East.

- Cornelis de Houtman was The 1st dutchman to reach sumatra and the Bantam in 1596.
- In 1602, the States General of The Netherlands amalgamated several trading corporations into the east india Company of the netherlands..
- This company was also empowered to carry on war, to conclude treaties, to require possession of territory and to erect fortresses.
- Dutch Settlements after their arrival in India, the Dutch founded their 1st

manufacturing plant in Masulipatnam (in Andhra) in 1605.

- They went on to establish trading centres in different parts of India and thus became a threat to the Portuguese.
- They captured Nagapal near Madras (Chennai) from the Portuguese and made it the main stronghold in South India.
- The Dutch established factories on the Coromand coast, in Gujarat, U.P, Bengal and Bihar.
- In sixteen they opened a manufacturing plant in Pulicat, north of Madras.
- Their oath principal factories in India were at Surat (1616), Bimlipata (1641), Karaikal (1645), Chinsura (1653), Baranag Kasimbazar (near Murshidabad), Balasore, Patna, Nagapat (1658) and cochin (1663).
- Taking part in the redistribution or carrying trade, they took to the islands of the far E various articles and merchandise from India.
- They carried indigo manufactured in the Yamuna valley and Central Indi textiles and silk from Bengal, Gujarat and the Coromandesaltpetre from Bihar and opium and rice from the Gang valley.



## Topic 14. VULTURES IN INDIA

### *Importance for Prelims: Environment*

Sr. No.	Name of the Vulture Species	IUCN status	Pictorial Representation
1.	Oriental White-backed Vulture (Gyps Bengalensis)	Critically Endangered	
2.	Slender-billed Vulture (Gyps Tenuirostris)	Critically Endangered	
3.	Long-billed Vulture (Gyps Indicus)	Critically Endangered	
4.	Egyptian Vulture (Neophron Percnopterus)	Endangered	
5.	Red-Headed Vulture (Sarcogyps Calvus)	Critically Endangered	
6.	Indian Griffon Vulture (Gyps Fulvus)	Least Concerned	
7.	Himalayan Griffon (Gyps Himalayensis)	Near Threatened	
8.	Cinereous Vulture (Aegypius Monachus)	Near Threatened	
9.	Bearded Vulture or Lammergeier (Gypaetus Barbatus)	Near Threatened	

Locals found the dead bodies of more than ninety five Himalayan griffon vultures and a steppe eagle in the Chaiygaon area of Milanpur village in

Assam's Kamrup district march 17, 2022.

- **About Vultures:** It is one of the 22 species of large carrion-eating birds that live predominantly in the tropics and subtropics.
- They act an important function as nature's garbage collectors and help to keep the environment clean of waste.
- Vultures also play a valuable role in keeping wildlife diseases in check.
- India is home to 9 species of Vulture namely the Oriental white-backed, Longbilled, Slender-billed, Himalayan, Red-headed, Egyptian, Bearded, Cinereous and the Eurasian Griffon.
- Most of these 9 species face danger of extinction. Bearded, Long-billed, Slender-billed, Oriental white-backed are protected in the Schedule-1 of the Wildlife Protection Act 1972. Rest are protected under 'Schedule IV'.
- **Vulture Conservation: Vulture Action Plan 2020-25:** The Ministry for environment, Forests and global climate change launched a Vulture Action plan 2020-25 for the conservation of vultures in the country.
- It will ensure minimum use of Diclofenac and prevent the poisoning of the principal food of vultures, the cattle carcasses.
- The Vulture Safe Zone programme is being implemented at eight different places in the country wherever there were extant populations of vultures, as well as 2 in Uttar Pradesh.
- To upscaling conservation four rescue centres will be opened like Pinjore in the north, Bhopal in central India, Guwahati in Northeast and Hyderabad in South India.
- To study the cause of deaths of vultures in India, a Vulture Care Centre (VCC) was set up at Pinjore, Haryana in 2001.
- Later in 2004, the VCC was upgraded to being the first Vulture Conservation and Breeding Centre (VCBC) in India.
- At present, there are nine Vulture Conservation and Breeding Centres

(VCBC) in India, of which three are directly administered by the Bombay Natural History Society (BNHS).

## Topic 15. NATIONAL PHARMACEUTICAL PRICING AUTHORITY (NPPA)

*Importance for Prelims: Science & Tech*



Pharma lobby seeking a 10% increase for scheduled drugs listed under the National List of Essential Medicines (NLEM).

How does the pricing mechanism work?

- Prices of Scheduled Drugs are allowed an increase each year by the drug regulator in line with the WPI.
- All medicines under the NLEM are under value regulation.
- As per the Drugs (Prices) Control Order 2013, scheduled drugs, about 15% of the pharma market, are allowed an increase by the government as per the WPI while rest eighty fifth percentage are allowed an automatic increase of 100% each year.

### **About NPPA:**

- The NPPA was set up in 1997 to fixed revise prices of controlled bulk drugs and formulations and to enforce price and availability of the medicines in the country, under the Drugs (Prices Control) Order, 1995-

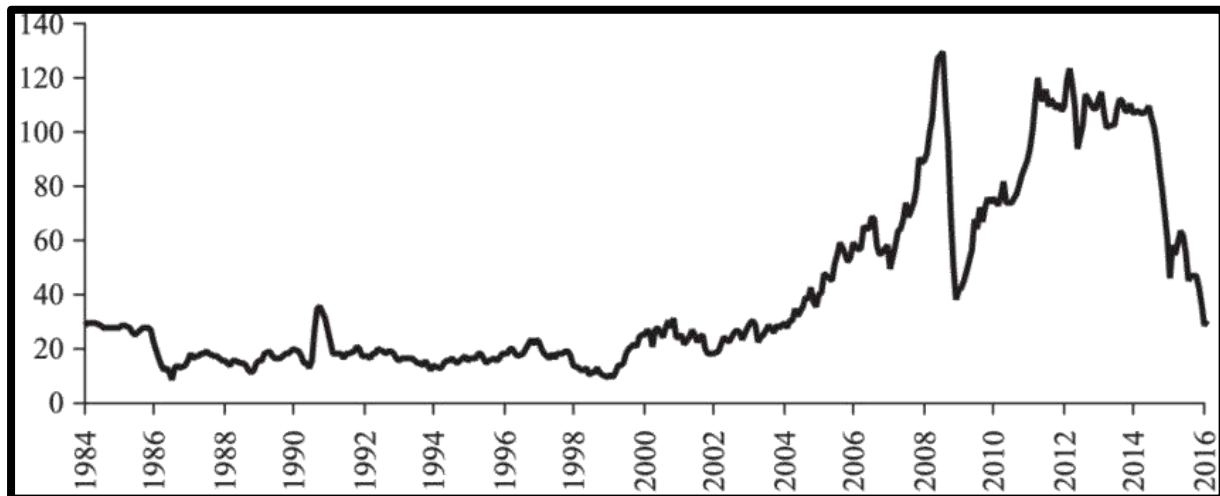
2013 Its mandate is to implement and enforce the provisions of the Drugs (Prices Control) Order in accordance with the powers delegated to it, to deal with all legal matters arising out of the choices of the NPPA and to monitor the availability of drugs, identify shortages and to take remedial steps.

- **The ceiling price fixed/revised by the NPPA is notified in the Gazette of India (Extraordinary) from time to time. Functions of NPPA:**
- To implement and enforce the provisions of the Drugs Price Control Order (DPCO), 1995/2013 in accordance with the powers delegated to it.
- To undertake and/or sponsor relevant studies in respect of pricing of drugs/formulations.
- To monitor the availability of drugs, identify shortages, if any, and to take remedial steps.
- To collect/maintain information on production, exports and imports, market share of individual firms, the profitability of firms etc.
- For bulk drugs and formulations.
- To deal with all legal matters arising out of the decisions of the Authority
- To render advice to the Central Government on changes/revisions in the drug policy.
- To render assistance to the Central Government in the parliamentary matters relating to the drug pricing.



## Topic 16. URAL OIL

### *Importance for Prelims: Economy*



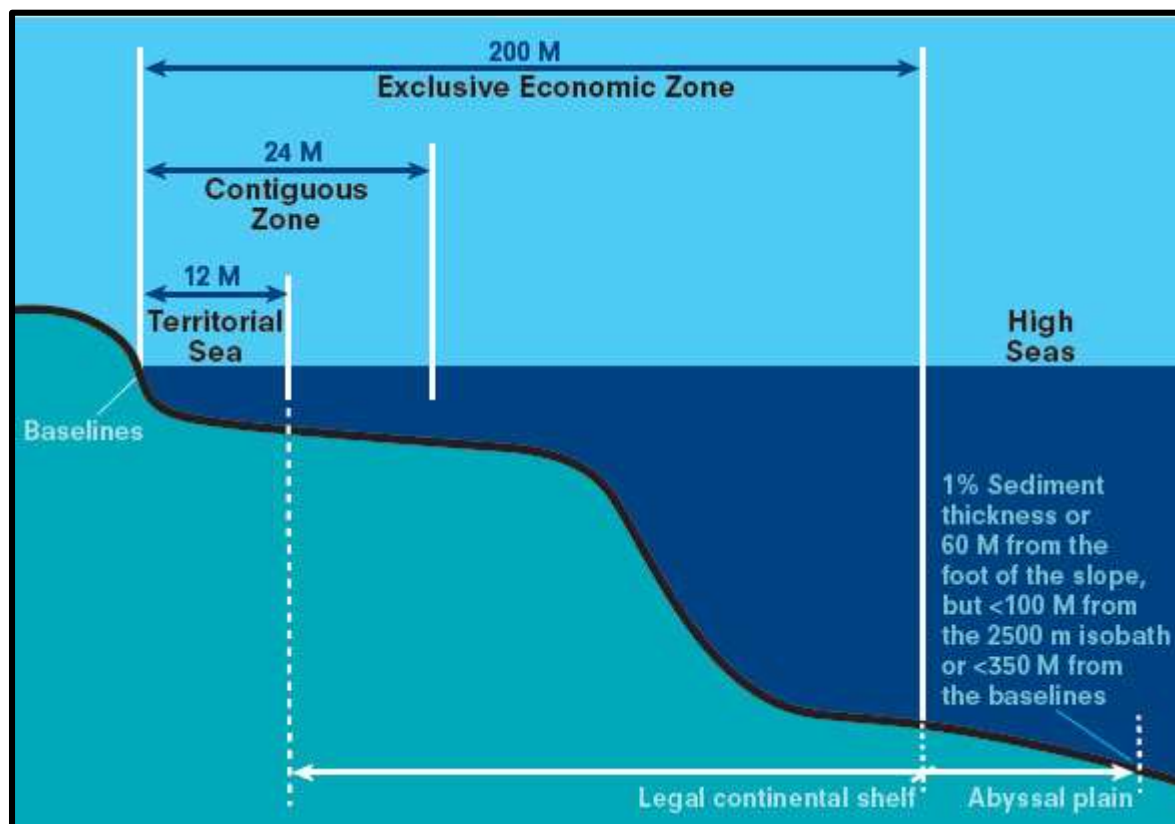
Indian PSU oil firms buys discounted Russian crude resisting west pressure

- India typically contracts Kazakh and Russian Ural crude oil on a free on board (FOB) basis.
- Most of the crude oil booked at the present is Ural, which may be a sulphur heavy grade, however supplies of the light sweet grade Sokol can also be shipped, largely from the Russian far-east region.
- Urals oil may be a reference oil brand used as a basis for pricing of the Russian export oil mixture.
- It is a mix of heavy sour oil of Urals and the Volga region with light oil of Western Siberia.
- The chance for India to buy a lot of of the Russian flagship grade that usually heads to Europe arose after its discount to international benchmark Brent fell to the widest since 2005, hit by rising tensions between Russia and the West over Ukraine.
- Russian oil is being offered through the traders in the spot market at deep discounts against Brent or Dubai markers, cheaper by up to \$18-22 per barrel depending on factors such as Sokol or Ural grade, and trader, etc.
- It is mostly on CIF basis (seller pays freight and marine insurance).
- Oil imports from Iran were routed through this mechanism.

- The discount makes it economically viable considering the long shipping route (more than 5,000 nautical miles) and the current freight costs.
- The discount of \$18- 22 per barrel can easily subsume \$4-5 per barrel of shipping charges and still make it profitable to contract.
- Majority of the deliveries will be shipped through the Black Sea port of Novorossiysk (for Ural grade).

## Topic 17. UN CONVENTION ON LAW OF THE SEA

*Importance for Prelims: Biodiversity*



United Nations members negotiate instrument under UN Convention on Law of the Sea to conserve, sustainably use marine biological diversity of areas beyond national jurisdiction.

- The fourth meeting of the Intergovernmental Conference (IGC-4) is underway March 7-18 in New York.
- The IGC-4 is convening under the UN Convention on the Law of the sea.
- And this is particular meeting is to conclude a draft of the instrument on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, also referred to as BBNJ.
- This meeting was scheduled in 2020 but had to be postponed due to the COVID-19 pandemic.
- BBNJ encompasses the high seas, beyond the exclusive economic zones or national waters of countries.

- This new agreement on BBJN has been under negotiation for the last 20 years.
- The present meeting is expected to finalise the draft for signing.
- **About UN Convention on Law of The Sea:** The United Nations Convention on the Law of the Sea (UNCLOS), 1982 is an international agreement that establishes the legal framework for marine and maritime activities.
- It is also known as Law of the Sea.
- It divides marine areas into five main zones namely Internal Waters, Territorial Sea, Contiguous Zone, Exclusive Economic Zone (EEZ) and the High Seas.
- It's the only international convention that stipulates a framework for state jurisdiction in maritime spaces.
- It provides a different legal status to different maritime zones.
- It not only zones coastal states' offshore areas however also provides specific guidance for states' rights and responsibilities in the 5 concentric zones.
- India is a state party to the UNCLOS.

## **Topic 18. THE SEXUAL HARASSMENT OF WOMEN AT WORKPLACE (PREVENTION, PROHIBITION AND REDRESSAL) ACT 2013**

### ***Importance for Prelims: Polity***

Kerala High Court on Thursday (March 17) asked organisations associated with the film industry to take steps to constitute a joint committee to deal with cases of sexual harassment women, in line with the sexual harassment of ladies at work (Prevention, Prohibition and Redressal) Act of 2013.

- **About The POSH Act:** The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act was passed in 2013.
- It defined sexual harassment, lay down the procedures for a complaint and inquiry, and the action to be taken.
- It broadened the Vishaka guidelines, which were already in place.
- The Vishaka guidelines were laid down by the Supreme Court in a judgment in 1997.
- The case involved Bhanwari Devi, employed with the rural development program of the Government of Rajasthan viciously gang-raped because of her efforts to stop the then prevailing practise of child marriage in the support of the government's campaign against child marriage in 1992.
- The Visakha guidelines, that were legally binding, defined sexual harassment and imposed 3 key obligations on institutions — prohibition, prevention, redress.
- The Act mandated that every} employer should constitute an internal Complaints Committee (ICC) at each workplace or branch with ten or more workers.
- It lay down procedures and defined various aspects of sexual harassment, including the aggrieved victim, who could be a woman “of any age whether employed or not”, who “to have been subjected to any act of the

sexual harassment”.

- This meant that the rights of all ladies working or visiting any workplace, in any capability, were protected under the Act.
- Definition of sexual harassment: Under the 2013 law, sexual harassment includes “any one or more” of the following “unwelcome acts or behaviour” committed directly or by implication: Physical contact and advances a demand or request for sexual favours Sexually coloured remarks Showing pornography the other unwelcome physical, verbal or non-verbal conduct of sexual nature.
- **Procedure for complaint:** Under the Act, the complaint must be made “within three months from the date of the incident”.
- However, the Interstate Commerce Commission can “extend the time limit” if “it is satisfied that the circumstances were such which prevented the woman from filing a complaint among the aforesaid period”.
- The Interstate Commerce Commission “may”, before inquiry, and “at the request of the aggrieved woman, take steps to settle the matter between her and therefore the respondent through conciliation” — provided that “no monetary settlement shall be made as a basis of conciliation”.
- The ICC may either forward the victim’s complaint to the police, or it can start an inquiry that has to be completed within 90 days.
- The ICC has powers similar to those of a civil court in respect of summoning and examining any person on oath, and requiring the discovery and production of documents.
- When the inquiry is completed, the ICC must provide a report of its findings to the employer within 10 days.
- The report is also made available to each parties.
- **After the ICC report:** If the allegations of sexual harassment are proved, the ICC recommends that the employer take action “in accordance with



the provisions of the service rules” of the company.

- These may vary from company to company. Compensation is determined based on five aspects: suffering and emotional distress caused to the woman; loss in career opportunity; her medical expenses; income and financial status of the respondent; and the feasibility of such payment.
- After the recommendations, the aggrieved woman or the respondent can appeal in court within ninety days Section fourteen of the Act deals with penalty for false or malicious complaint and false evidence.

## Topic 19. BUDDHIST MANUSCRIPTS

*Importance for Prelims: History*



Hundreds of the original Buddhist manuscripts from Nalanda and Vikramshila to be translated and published.

- The Bihar State Gov has signed an MoU with CIHTS (Central Institute of higher Tibetan Studies) for the translation (in Hindi) and publication (in five years) of original Buddhist manuscripts that were saved from being burnt in the 12 and 13 centuries by Bhaktiyar Khilji's Army.
- The manuscripts were brought back to India from Tibet by traveller, freedom fighter and monk Rahul Sankrityayan.
- The manuscripts were written in Sanskrit by scholars of the two universities between 7 and 12 centuries AD.
- Translation and publication would be vital for those doing analysis on

Vajrayana or Tibetan Buddhism, completely different Buddhism practices and Buddhist philosophy.

- **Vikramshila:** Located in Bhagalpur district in Bihar, it was one of the three most important Buddhist monasteries in India during the Pala Empire, along with Nalanda and Odantapuri.
- It had been established by the Pala Emperor Dhamapala because of the decline in the quality of scholarship at Nalanda.
- It had been a centre for Vajrayana Buddhism.
- It is mostly known from Tibetan sources, particularly the works of Taranatha, a 16 –17 century Tibetan monk historian.
- Subjects like philosophy, grammar, metaphysics, Indian logic etc. were taught here, however the foremost important branch of learning was Buddhist Tantra.
- It produced eminent scholars who were usually invited by foreign countries to spread Buddhist learning, culture and religion.
- The foremost distinguished and eminent among all was AtisaDipankara(a notable abbot), a founder of the Sarmatraditions of Tibetan Buddhism.
- It appears to have had a more clearly delineated hierarchy than other mahaviharas, as follows: Abbot (Adhyaksa) Six gate protectors or gate scholars (Dvarapalaor Dvarapand ita), one each for the Eastern, Western, First Central, Second Central, Northern, and Southern Gates Great Scholars (Mahapand ita) Scholars (Pand ita) Professors or Teachers (Upadhyayaor Acharya) including pand it's Resident monks (bhiksu).

## **Topic 20. GENEVA BIODIVERSITY CONFERENCE**

### ***Importance for Prelims: Environment***

Extinction” is that the buzz word at the on-going meeting of the Convention on the Biological Diversity in the Geneva, wherever the delegates from a hundred ninety countries are finalising a global plan to stop the biodiversity loss (March 14-29, 2022).

- Conference of Parties to the Convention on Biological Diversity (CoP15, CBD) is to take place in Kunming, China.
- The Convention on Biological Diversity (CBD) can hold three conferences at the same time that “are critical to developing an the effective post-2020 the global biodiversity framework (GBF)”.
- The CBD’s 2 subsidiary bodies, the Subsidiary Body on Scientific, Technical and Technological advice (SBSTTA) and also the Subsidiary Body on Implementation (SBI) can convene, together with the Open-ended working Group on the post-2020 global biodiversity framework (WG2020).
- **Convention on Biological Diversity (CBD):** The Convention on Biological Diversity (CBD), a legally binding treaty to conserve biodiversity.
- The Convention on Biological Diversity (a multilateral treaty) was opened for signature at the Earth Summit in Rio de Janeiro in 1992 and entered into effect in 1993.
- It has two supplementary agreements, the Cartagena Protocol and Nagoya Protocol. It has been operative since 1993.
- **It has 3 main objectives:** The conservation of biological diversity.
- The sustainable use of the components of biological diversity.
- The fair and equitable sharing of the advantages arising out of the use of genetic resources.

- The CBD Secretariat is based in metropolis, Canada and it operates underneath the UN environment Programme.
- Only two member states of the United Nations are not Parties to the CBD, namely: the USA and the Vatican.
- The Parties (Countries) under Convention of Biodiversity, meet at regular intervals and these meetings are called Conference of Parties (COP).
- Supplementary agreement to the Convention include: Cartagena Protocol on Biosafety.
- It came into force on 11th Sept 2003.
- The Protocol seeks to protect biological diversity from the potential risks posed by living changed organisms resulting from modern biotechnology.
- The metropolis Protocol on Access to Genetic Resources and also the fair and the equitable Sharing of the benefits Arising from their Utilization (ABS) was adopted in 2010 in nagoya, Japan at COP10.
- It entered into force on 12th October 2014.
- COP-10 also adopted a ten-year framework for action by all countries to avoid wasting biodiversity.
- Formally referred to as the “Strategic plan for biodiversity 2011-2020”, it provided a set of twenty ambitious however achievable targets collectively referred to because the Aichi Targets for biodiversity.



## **Topic 21. GOVERNOR**

### ***Importance for Prelims: Polity***

Jharkhand Governor Ramesh Bais returned the Prevention of Mob Violence and Mob Lynching Bill, 2021, passed by the state assembly in December last year, with two objections.

- **The first objection reads, “Section 2:** Sub section-I, Sub Clause-xii deals with ‘Witness Protection Scheme’ (in the English version of the Bill).
- This clause-xii is missing in the Hindi version of the Bill.
- This needs to be rectified/ corrected by the State Government so that there is a symmetry in both the versions of the Bill.”
- The second objection suggests, “There could be a need to reconsider the definition of ‘mob’ as given in Section 2(vi) of the Bill, that isn't in consonance or in line with the well-defined legal lexicon/glossary.
- The Governor – Appointment: President of India appoints the Governor of State by warrant under his hand and seal for a five-year term.
- The Governor is not directly elected by the people, and neither is he elected indirectly by a special electoral college.
- **Qualifications:** The Indian Constitution specifies 2 basic qualities for the selection of a Governor.
- He should be an Indian citizen.
- He must be at least 35 years old.
- **Over time, the following conventions have emerged:** He should be an outsider who does not reside in the state where he will be appointed.
- When appointing the Governor of a state, the President must consult with the state’s Chief Minister.
- **Constitutional Position:** The provisions of Articles 154, 163, and 164 of the Constitution empower the constitutional post of Governor.



- Article 153 of the Indian Constitution mandates the appointment of a Governor in every state.
- The seventh amendment to the Constitution but, allows for the appointment of the same person as Governor of 2 or more states.
- **Article 154:** The Governor shall have executive power over the state, which he shall exercise either directly or through officers subordinate to him in conformity with this Constitution.
- **Article 163:** There shall be a council of ministers, led by the Chief Minister, to assist and advise the Governor in the exercise of his powers, except when is compelled to execute in his functions at his discretion.
- **Article 164:** The council of ministers is collectively responsible to the state's legislative assembly.
- This provision is the cornerstone of the state's parliamentary system of governance.
- The Governor has the same executive, Legislative, Financial, and Judicial authorities because the President of India.
- However, the Governor's power is restricted in many ways in which compared to that of the President, because the Governor lacks the President's military, diplomatic, and emergency authorities.
- **Powers of Governor with regard to assent to Bills:** Article 200 of the Indian Constitution deals with the powers of the Governor with regard to assent given to bills passed by the State legislature and other powers of the Governor such as reserving the bill for the President's consideration.
- Article 201 pertains to 'Bills Reserved for Consideration'.
- The Governor of India enjoys absolute veto, suspensive veto (except on money bills) but not the pocket veto The governor is empowered to reserve certain types of bills passed by the state legislative assembly for the consideration of the President.

- Then, the Governor will not have any further role in the enactment of the bill.

## **Topic 22. RETAIL INFLATION FOR FARM, RURAL WORKERS RISES TO 5.59%, 5.94% IN FEBRUARY**

### ***Importance for Prelims: Economy***

Retail inflation for farm employees and rural labourers rose to 5.59 per cent and five.94 per cent severally in Feb, mainly because of higher prices of certain food items.

- Labour Bureau has been compiling CPI Numbers for Agricultural Labourers since September, 1964.
- The base of CPI(AL) was 1960-61=100.
- This series of CPI Numbers was then replaced by CPI for (i) Agricultural and (ii) Rural Labourers with base 1986-87=100 from November, 1995 onwards.
- CPI for Agricultural and Rural labourers on base 1986-87=100 is a weighted average of 20 constituent state indices and it measures the extent of the goods and the services consumed by the agricultural and rural labourers as compared with the base period viz 86-87.
- This index is released on the twentieth of the succeeding month. CPI-AL is basically used for revising minimum wages for agricultural labour in different States.

### **How the CPI-AL compares with CPI-RL?**

- While the retail prices utilized in the compilation of CPI-AL and CPI-RL are same, the weights are different due to the difference in coverage of the two series.
- The coverage of CPI-AL is confined to households of the agricultural labourers whereas the CPI-RL is CPI-AL covers the households of rural labourers that include agricultural labourers households also.

### **How the Rural Labour Households and Agricultural Labour Households are have been defined?**

- i) Rural Labour Households Rural Labour Households are those households whose income, throughout the last one year, was a lot of from wage paid manual labour (agricultural and/or non-agricultural) than either from paid non-manual employment or from self-employment.
- ii) Agricultural Labour households The rural labour households, who derive 50 per cent or more of their total income from wage paid manual labour in agricultural activities, are treated as agricultural labour households.
- iii) For how many states indices for CPI-AL/RL are compiled and how were they selected? Indices for CPI-AL/RL are compiled separately for every of the twenty States that were selected on the basis of the proportion of agriculture labour/rural labour in respective states.

- **How all-India index is compiled?**

- The all-India index is worked out as a weighted average of the indices of 20 States, weights being the estimated consumption expenditure of all rural and agricultural labour households in each State as a proportion of corresponding expenditure for all-India.

**What wage rates are collected by the Labour Bureau and how the average wage rates are worked out?**

- The wage rates collected by the Bureau are the prevailing wage rates in different villages of the several states and are averaged to arrive at State and All-India level average wage rate.
- • To arrive at the State level average wage rates, the daily wage rate information received from the different villages are 1st normalized for eight hours working day and then the simple arithmetic average of these normalized daily wage rates is worked out.
- State-wise averages are however restricted to those occupations where the number of quotations are five or more in order to avoid inconsistency in

wages paid to different categories of workers on account of difference in variety of quotations.

- The average wage rates at all-India level are derived by dividing the sum total of wages of all the 20 states by the number of quotations.
- At all-India level also, the amount of quotations for working out occupation-wise averages are restricted to 5 or more.

### **What are the occupations for which wage rates are compiled?**

- The average daily wage rate data was collected for 11 agricultural and 7 non-agricultural occupations till October, 2013.
- However, following the recommendations of the working group constituted by the CSO on recommendation of the National statistical commission, wage rate is currently being collected for twenty five occupations(12 agricultural and 13 non-agricultural) as given below:

### **What are the reports being compiled and published by the Labour Bureau based on Rural Labour Enquiry?**

**The following 5 analytical reports are the compiled and published by the Labour Bureau on quinquennial basis:**

- iii. Employment and Unemployment of the Rural Labour Households;
- iv. Wages and Earnings of the Rural Labour Households;
- v. Indebtedness among the Rural Labour Households;
- vi. General Characteristics of the Rural Labour Households; and
- vii. Consumption Expenditure of the Rural Labour Households.

## Topic 23. ARTICLE 24 OF GATT

### *Importance for Prelims: International relations*

India negotiating FTAs

- Article twenty four is a provision of the general Agreement on Tariffs and Trade (GATT).
- The GATT is a World Trade Organisation (WTO) agreement aimed at reducing tariffs and other barriers to trade in goods across the world.
- Ordinarily, under WTO rules, tariffs and other barriers applied to goods coming from other countries must be the same for all WTO members.
- This is called the foremost favoured nation principle.
- • However, the General Agreement on Tariffs and Trade provides several means for members to negotiate agreements among themselves to reduce barriers selectively while not having to apply the same benefits to all World Trade Organization members: one of these is Article 24.
- Its main purpose is to ensure that barriers are not raised to other WTO members because of these agreements.
- In principle, Article twenty four also permits members to reach 'interim' agreements so that they can offer preferential treatment prior to the implementation of a full agreement.
- **GATT:** the overall Agreement on Tariffs and Trade (GATT) is a legal agreement between several countries, whose overall purpose was to promote international trade by reducing or eliminating trade barriers such as tariffs or quotas.
- It was signed by 23 nations in Geneva on October 30th, 1947, and was applied on a provisional basis January 1st, 1948.
- It remained in effect until January 1st, 1995, when the World Trade Organization (WTO) was established after agreement by 123 nations in Marrakesh on April 15th, 1994, as part of the Uruguay Round The WTO



is the successor to the GATT, and the original GATT text (GATT 1947) is still in effect under the WTO framework, subject to the modifications of GATT 1994.

- **WTO:** The WTO's creation on 1st Jan 1995 marked the largest reform of international trade since the end of the Second world war.
- Whereas the General Agreement on Tariffs and Trade mainly dealt with trade in product, the World Trade Organization and its agreements also cover trade in services and intellectual property.
- The birth of the WTO also created new procedures for the settlement of disputes.
- **Functions of WTO:** Trade negotiations Implementation and monitoring  
Dispute settlement Building trade capacity Outreach In 2020, the WTO marked its 25th anniversary.

## Topic 24. FOREIGN DIRECT INVESTMENT

*Importance for Prelims: Economy*



347 FDI proposals received from countries sharing land border with India; 66 approved.

- In April 2020, the government had made its prior approval mandatory for foreign investments from countries that share land border with India to curb opportunistic takeovers of domestic firms following the COVID-19 pandemic.
- Countries which share land border with India are China, Bangladesh, Pakistan, Bhutan, Nepal, Myanmar and Afghanistan.
- As per that the decision, FDI proposals from these countries need government approval for investments in India in any sector.
- The sixty six approved proposals are from sectors as well as automobile (7), chemicals (5), computer software and hardware (3), pharma (4), education (1), electronics (8), food processing (2), information and

broadcasting (1), machine tools (1), petroleum and natural gas (1), power (1), services sector (11).

- FDI Policy in India: Non-residents investing in India are required to comply with India's Foreign Direct Investment Policy (FDI Policy) and other foreign investment and foreign exchange regulations, including the Foreign Exchange Management Act (FEMA).
- The FDI Policy is issued and revised from time to time by the Department for Promotion of Industry and Internal Trade (DPIIT) under the Ministry of Commerce and Industry, Government of India (GOI).
- Non-resident investors don't need any prior licensing or registration for foreign direct investment (FDI) in India.
- India regulates FDI depending on the sector in which the investment is proposed to be created.
- FDI is permitted in most sectors under two routes: the automatic route and the approval route.
- Under the automatic route, the investment is also made with none approval from any government agency.
- Examples of sectors under the automatic route include, among others, infrastructure, healthcare, manufacturing and renewable energy Under the approval route, prior government approval is required for FDI.
- Sectors under the approval route include, & among others, multi-brand retail, broadcasting, banking, defense, mining, print media and biotechnology.
- FDI is prohibited in a number variety of sectors like manufacturing of tobacco, trading in transferrable development rights, real estate business (subject to limited exceptions), and gambling and betting, including casinos.

## **Topic 25. RBI MICRO FINANCE FRAMEWORK**

### ***Importance for Prelims: Economy***

(Regulatory Framework for Microfinance Loans) Directions, 2022– framework for regulated lenders, including scheduled commercial banks, small finance banks, NBFCMFIs and NBFC-Investment and Credit Companies.

- The guidelines will take effect 1st April 2022.
- All collateral-free loans, provided to low income households (with annual income up to ₹3 lakh) shall be considered microfinance loans.
- Earlier, the upper limits were Rs.1.2 lakh for rural borrowers and Rs.2 lakh for urban borrowers.
- Lending to the microfinance segment shall be collateral free and not linked to the borrowers deposit account Interest rates and other charges/fees on these loans should be subject to supervisory scrutiny by the Reserve Bank of India Any modification in interest rate or the other charge shall be informed to the borrower well in advance and applied prospectively.
- The RE or its agent shall not engage in any harsh methods towards loan recovery Regulated Entities (REs) should put in place a board-approved policy regarding pricing of microfinance loans, flexibility in repayment, a ceiling on the interest rate and all other charges applicable to microfinance loans.
- The margin cap (not surpassing 10 per cent for big MFIs with loan portfolios exceeding Rs.100 crore and twelve per cent for the others) isn't any longer applicable to NBFC-MFIs.
- Repayment cap-outflows capped at fifty per cent of the monthly household income, shall include repayments (including both principal as well as interest component) towards all existing as well as under-consideration loans.

- There shall be no prepayment penalty on microfinance loans.
- Penalty, if any, for delayed payment shall be applied on the overdue amount and not on the entire loan amount.
- RE would have to put in place a mechanism for identification of the borrowers facing repayment-related difficulties, engagement with such borrowers and providing them necessary guidance regarding the recourse available.
- Every RE has to provide a loan card to the borrower incorporating info associated with the borrower and pricing of the loan.
- Non credit merchandise shall be provided with the consent of the borrower along with complete info on pricing.
- About micro- finance framework Microfinance is a form of financial service which provides small loans and other financial services to poor and low-income households by various microfinance institutions. Microfinance Institution-MFI is an organisation that offers financial services to low income populations.
- These services include the microloans, micro savings and micro Insurance.
- In most cases the so-called interest rates are lower than those charged by normal banks Different types of financial services providers for poor people have emerged – NonGovernment Organisations (NGOs), cooperatives, community-based development institutions like self-help groups and credit unions, commercial and state banks, insurance and credit card corporations, telecommunications and wire services, post offices, and other points of sale – offering new possibilities.
- **Microfinance models: The Grameen Model:** The Grameen model has been a case of exceptional success in Bangladesh.
- It turns out that many organizations in India have adopted the Grameen Bank model with little variations.
- Some of the notable examples are SHARE Microfinance limited, and

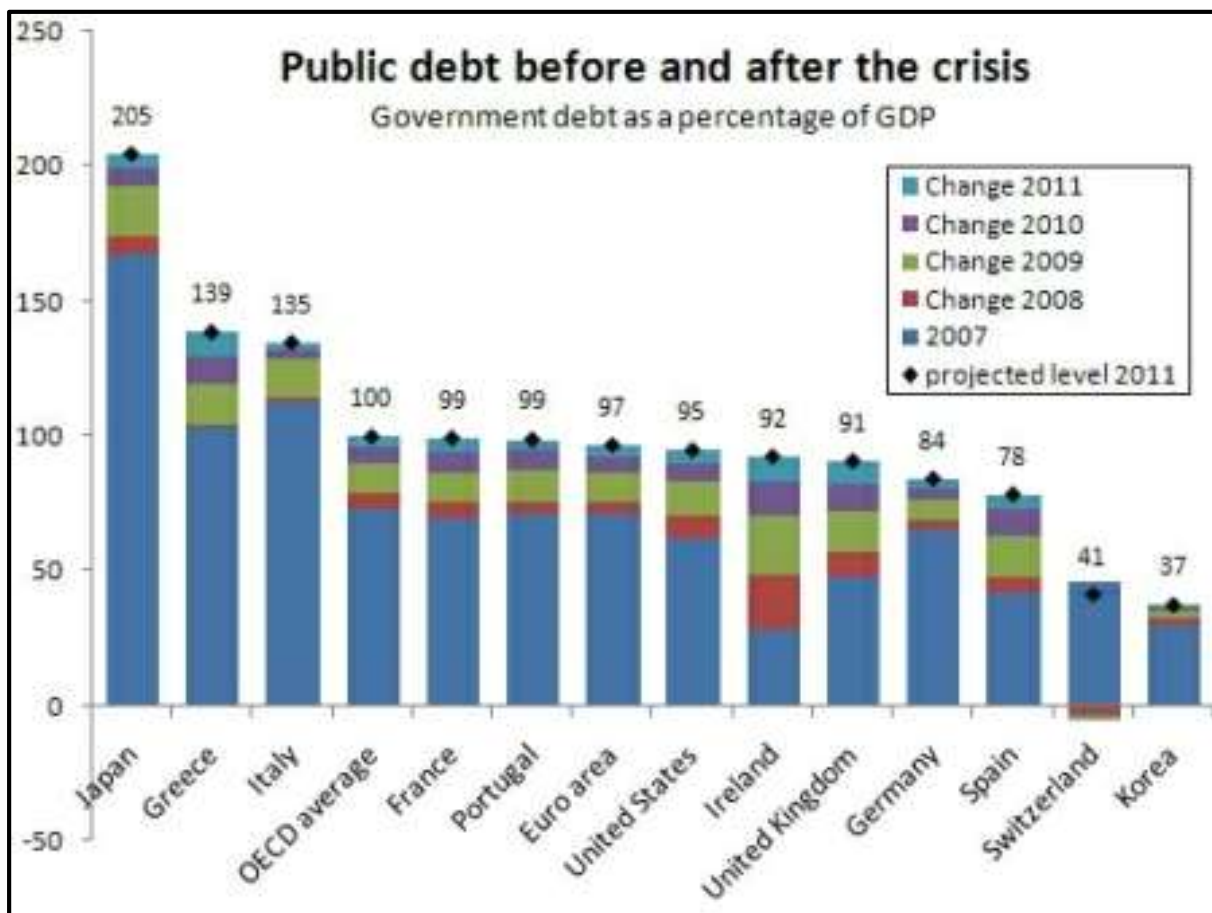
Activists for the Social Alternatives (ASA) and CASHPOR financial and Technical Services limited.

- **Self Help Groups (SHGs):** an SHG is a group of 5 to twenty people from a similar income category formed on principle of lending their own savings.
- This model was popularized by NABARD's SHG-Bank linkage programme.
- **Federated Self Help Groups (SHG federations):** The Federation of SHGs brings together several SHGs.
- Compared to a single SHG; the federation of SHGs has over one thousand members.
- Examples of federated Self help group models in India are PRADAN, Chaitanya, SEWA and Dan Foundation.
- Cooperative banks Rotating Savings and Credit Associations (ROSCAS).
- E.g.: Chit funds Scheduled commercial banks (SCBs) (including small finance banks (SFBs) and regional rural banks (RRBs)) Non-banking financial companies (NBFCs) Microfinance institutions (MFIs) registered as NBFCs The difference between an NBFC-MFI and the other NBFC is that whereas other NBFCs will operate at a very high level, MFIs cater is to only the smaller level of social strata, with need of smaller amounts as loans.



## Topic 26. FISCAL CONSOLIDATION

*Importance for Prelims: Economy*



Fiscal policy Fiscal consolidation refers to the ways and means of narrowing the fiscal deficit.

- The seeds for fiscal consolidation were sown in the Union Budget of 1994 which highlighted the need for fiscal discipline and pronounced a policy to end monetising the deficit.
- Before 1994 deficit financed by making money, through unlimited recourse to the reserve bank, by issue ad hoc treasury bills.
- This weakened the Reserve Bank's ability to direct the effective monetary policy.
- Later, in 2003 The fiscal Responsibility and the Budget Management (FRBM) Act gave the targets for fiscal consolidation in India.

- The Fiscal Responsibility and Budget Management (FRBM) Act The FRBM act also provided for certain documents to be tabled in the Parliament of India, along with Budget, annually with regards to the country's fiscal policy.
- This included the Medium-term fiscal policy Statement, the fiscal policy Strategy Statement, the Macro-economic Framework Statement, and Medium-term Expenditure Framework Statement.
- The FRBM rules mandate four fiscal indicators to be projected in the medium-term fiscal policy statement.
- **These are:** revenue deficit as a percentage of GDP fiscal deficit as a percentage of GDP.
- Tax revenue as a percentage of GDP. Total outstanding liabilities as a percentage of gross domestic product.
- **Initial targets:** Revenue Deficit Target – revenue deficit should be the completely eliminated by March 31, 2009.
- The minimum annual reduction target was 0.5% of GDP.
- **Fiscal Deficit Target** – fiscal deficit should be reduced to 3% of GDP by March 31, 2009.
- The minimum annual reduction target was 0.3% of GDP.
- **Contingent Liabilities** – The Central Government shall not give incremental guarantees aggregating an amount exceeding 0.5 per cent of GDP in any financial year beginning 2004-05.
- **Additional Liabilities** – Additional liabilities (including external debt at current exchange rate) should be reduced to 9% of the GDP by 2004-05.
- The minimum annual reduction target in each subsequent year to be 1% of GDP.
- Reserve Bank of India purchase of government bonds – to cease from 1 April 2006.

- This indicates the government not to borrow directly from the RBI.
- Major amendments FRBM Targets after Amendment to FRBM Act in 2012 (to be achieved by 2015) Revenue Deficit Target – revenue deficit should be completely eliminated by March 31, 2015.
- The minimum annual reduction target was 0.5% of GDP.
- Fiscal Deficit Target – fiscal deficit should be reduced to 3% of GDP by March 31, 2015.
- The minimum annual reduction target was 0.3% of GDP.
- FRBM Targets after amendment to FRBM Act in 2015 (to be achieved by 2018) Revenue Deficit Target – revenue deficit should be completely eliminated by March 31, 2018.
- The minimum annual reduction target was 0.5% of GDP.
- **Fiscal Deficit Target** – fiscal deficit should be reduced to 3% of GDP by March 31, 2018.
- The minimum annual reduction target was 0.3% of GDP.
- In May 2016, the govt set up a committee under NK Singh to review the FRBM Act.
- Debt to GDP ratio: The review committee advocated for a Debt to gross domestic product ratio of 60 percent to be targeted with a 40 percent limit for the centre and 20 Percent limit for the states.
- Revenue Deficit Target – revenue deficit should be reduced to 0.8% of GDP by March 31, 2023.
- The minimum annual reduction target was 0.5% of GDP.
- Fiscal Deficit Target – fiscal deficit should be reduced to 2.5% of GDP by March 31, 2023.
- The minimum annual reduction target was 0.3% of GDP.
- Escape clause refers to the situation under which the central government

can flexibly follow fiscal deficit targets during special circumstances. This terminology was innovated by the NK Singh Committee on the FRBM.

- Setting up of an autonomous fiscal council that deals with the preparation of multiyear fiscal forecasts, improves fiscal data quality, could advise the government on fiscal matters.
- In 2018, the FRBM Act was any amended.
- The clause allows the government to relax the fiscal deficit target for up to 50 basis points or 0.5 per cent, if the escape clause is triggered to allow for a breach of fiscal deficit target, the Reserve Bank of India is then allowed to participate directly in the primary auction of Gov bonds.
- The original fiscal deficit target for 2020-21 was 3.5%.
- However, in reality, the deficit has shot up to a high of 9.5% of the GDP due to: The impact of the COVID-19 pandemic.
- Low revenue flows because of the lockdown.
- Negative economic growth clubbed with high government spending to provide relief to vulnerable sections of society.
- Thus, the targets revised- the fiscal deficit for 2021-22 at 6.8% of the GDP and aims to bring it back below the 4.5% mark by 2025-26.

### **Challenges in current fiscal consolidation:**

1. Covid pandemic and need for social spending – health and education and related countercyclical fiscal policy measures.
2. Rising unemployment
3. Current Ukraine war and risk of supply chain shortages and rise in import bill due to higher crude oil prices.
4. Food security – food subsidies remain the major source of revenue expenditure.
5. Interest payments on debts -India's debt to GDP ratio increased from 74

percent to 90 percent during the pandemic.

6. This fiscal consolidation in times of crisis delays the inclusive recovery process.

Way forward:

1. Increase capital expenditure— as it has a multiplier and crowd in effect- help increasing investment and country's GDP.
  2. Link fiscal cycle to credit cycle i.e linking of fiscal policy and monetary policy.
  3. A committee for looking into the feasibility of subsuming all subsidies into a lumpsum direct benefit transfer.
  4. Increase revenue of government- agri taxation, reducing discounts and remissions etc.
  5. An autonomous fiscal council -Given the deteriorating state of fiscal health, the N.K. Singh committee in 2017, has suggested establishing an independent fiscal council.
- Similar recommendations were the mooted by the 13th and 14th finance commissions.
  - Multiplier is that the ratio of amendment in national income arising from any autonomous amendment in spending (including private investment spending, consumer spending, government spending, or spending by foreigners on the country's exports).
  - The existence of a multiplier effect was at first proposed by keynes|economist|economic expert} student Richard kahn in 1930 and published in 1931 and later it absolutely was elaborated by J M Keynes as the 'Investment Multiplier' In simple words, the multiplier measures the increase in national income due the increase in autonomous spending, depending on the propensity to consume.
  - Suppose autonomous spending (spending that doesn't depend upon income – government spending, investment, consumption, net exports)

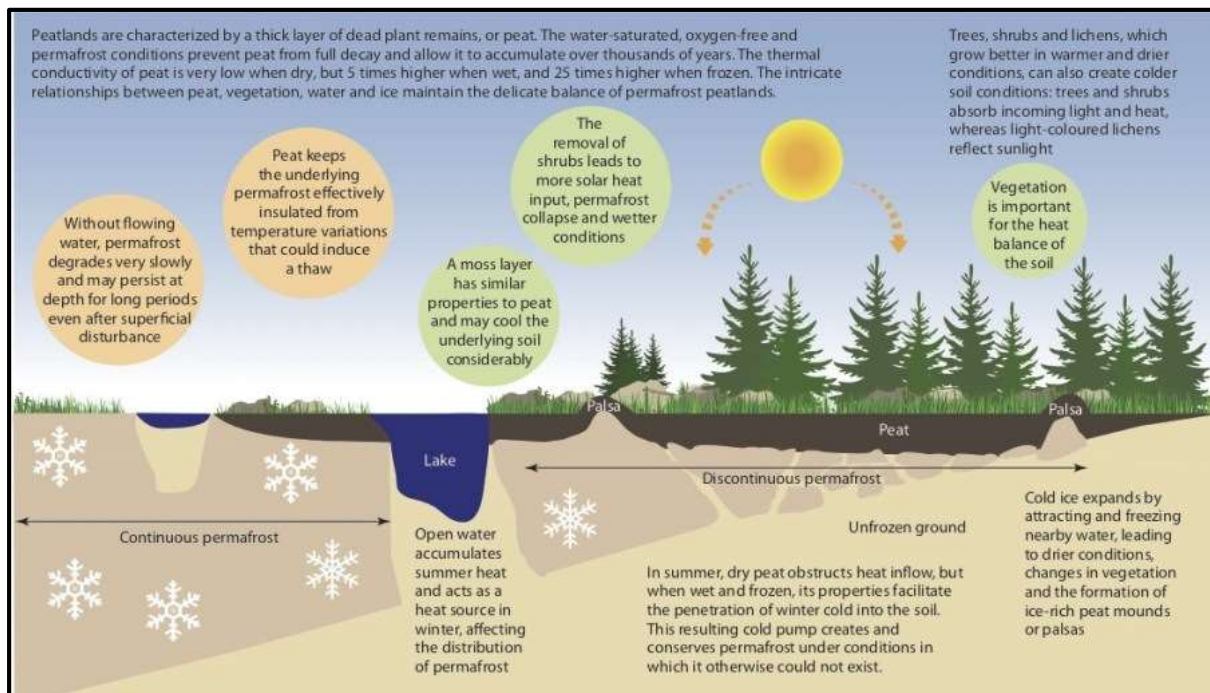
risers, value would rise to the multiple of autonomous expenditure.

- Thus, Multiplier =  $1/1-mpc$  For example- the government would spend £3bn on multi-modal connectivity-roads, rails, bridges etc.
- This involves employing workers (previously unemployed) and paying suppliers for raw materials. Initially, gross domestic product rises £3bn - In the next amount, employees spend a part of this extra income – in shops and for transport.
- The suppliers also employ more employees – creating more employment. This creates an additional economic output of £1bn.
- -Therefore the final increase in GDP is £4bn In this case, the multiplier effect is 1.33 Crowding-in effect is a phenomenon that occurs when higher government spending leads to an increase in economic growth and therefore encourages firms to invest due to the presence of more profitable investment opportunities.
- The crowding-in effect is the observed when there's a rise in private investment because of increased public investment, for example, through the construction or improvement of physical infrastructures like roads, highways, water and the sanitation, ports, airports, railways, etc.



## Topic 27. PERMAFROST PEATLANDS

### Importance for Prelims: Environment



Permafrost peatlands in Europe and western Siberia could be approaching their tipping point quicker than expected, a new study warned.

### More about the Study:

- According to the study published in Nature Climate Change, Frozen wetlands in Europe and western Siberia store up to 39 billion tonnes of carbon.
- By 2040, northern Europe may become too wet and warm to support permafrost peatlands, the study added.
- **About Peatlands:** Peatlands are a class of wetlands, which are ecosystems flooded with water.
- Waterlogged conditions limit microbial decay of dead plant materials rich in carbon dioxide.
- This prevents the reintroduction of the gas into the atmosphere.
- Peatlands occupy only three per cent of the global land surface, store twice as much carbon as all the world's forests, according to the UN

environment Programme.

- **Permafrost Peatlands:** Some peatlands are buried underneath frozen ground or permafrost and exist as permafrost peatlands.
- They are found in the northern parts of Alaska, Canada, Russia and parts of northern Europe.
- Frozen wetlands in Europe and western Siberia store up to thirty-nine billion tonnes of carbon.
- This is equivalent to twice that is held by the whole of European forests.
- By 2060, these areas may lose seventy five per cent under moderate efforts to mitigate global climate change.
- Sweden, Alaska and Canada in the Arctic are already witnessing warmer temperatures, according to the UNEP.
- **Peatlands and climate change:** Peatlands are a sort of wetland that are critical for preventing and mitigating the effects of climate change, preserving biodiversity, minimising flood risk, and ensuring safe drinking water.
- Peatlands are the biggest natural terrestrial carbon store.
- They store more carbon than all other vegetation types in the world combined.
- Damaged peatlands are a major source of greenhouse gas emissions, responsible for almost 5-hitter of worldwide anthropogenic CO<sub>2</sub> emissions.
- Peatland restoration can reduce emissions significantly.
- Countries should include peatland conservation and restoration in their commitments to international agreements, including the Paris Agreement on climate change.

### What is the Global Peatlands Initiative?

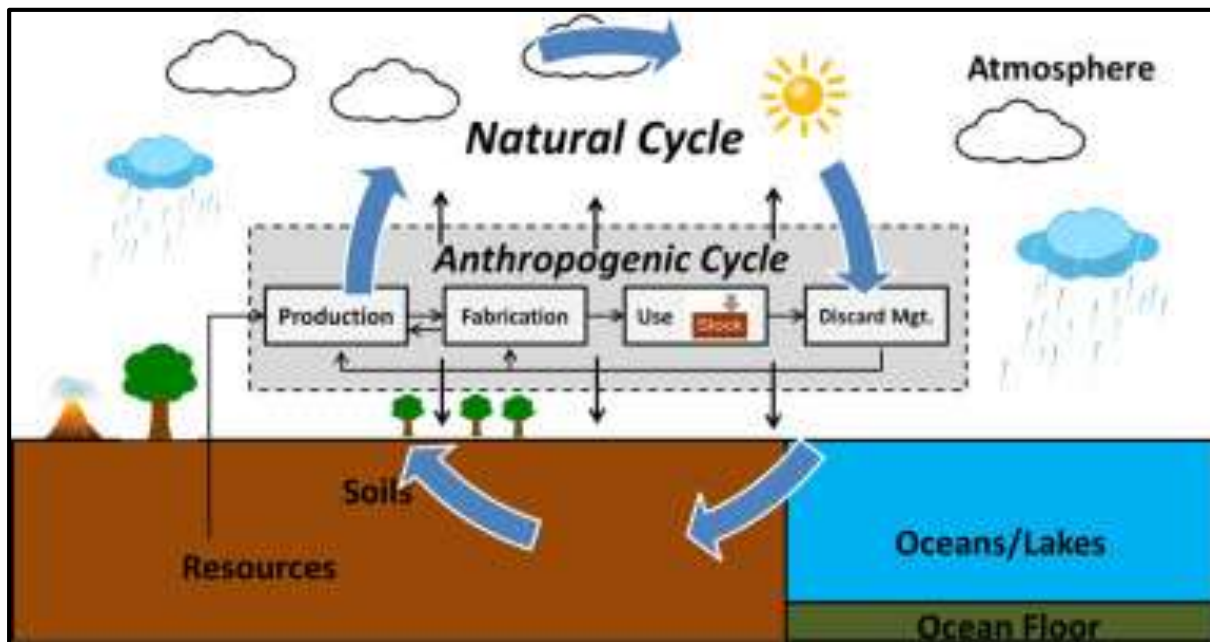
- The Global Peatlands Initiative is an effort by leading experts and

institutions formed by 13 founding members at the UNFCCC COP in Marrakech, Morocco in 2016 to save peatlands as the world's largest terrestrial organic carbon stock and to prevent it being emitted into the atmosphere.

- Partners to the Initiative are working along within their respective areas of expertise to boost the conservation, restoration and sustainable management of peatlands.
- One of the first outputs of the Global Peatlands Initiative will be an assessment, which will focus on the status of peatlands and their importance in the global carbon cycle.
- It will also examine the importance of peatlands for national economies.
- **Read more Impact of thawing of permafrost:** Thawing Permafrost

## Topic 28. TECHNOLOGY CRITICAL ELEMENTS (TCES)

*Importance for Prelims: Science & Tech*



Climate-positive, high-tech metals are polluting Earth.

- Green energy technology growth (especially wind, solar and hydropower, along with electrical vehicles) rely on technology-critical elements (TCES), whose production and disposal can be environmentally harmful.
- Mining and processing of TCES requires huge amounts of energy.
- Mines use gigantic quantities of fresh water; can drive large-scale land-use change; and pollute air, soil and water — threatening biodiversity.
- TCES may also become pollutants themselves when they are disposed of as waste.
- The mining of TCES can also exacerbate climate change. Mining activities and leaching of TCES will pose significant hazards to human health.
- **About Technology Critical Elements (TCES):** A technology-critical element (TCE) is a chemical element that is critical to emerging technologies.
- Many advanced engineering applications, like clean-energy production,

communications and computing, use emergent technologies that utilize various chemical elements.

- The set of elements usually considered as TCEs vary depending on the source, but they usually include: Seventeen rare-earth elements cerium, dysprosium, erbium, europium, gadolinium, holmium, lanthanum, lutetium, neodymium, praseodymium, promethium, samarium, scandium, terbium, thulium, ytterbium, yttrium Six platinum-group elements iridium, osmium, palladium, platinum, rhodium, ruthenium Twelve assorted elements antimony, beryllium, caesium, cobalt, gallium, germanium, indium, lithium, niobium, tantalum, tellurium, tungsten.

## **Topic 29. PHOSPHORUS BOMBS & WAR CRIMES**

*Importance for Prelims: Science & Tech*



Amid escalating tensions, a senior Ukrainian police officer has been accused Russian forces of launching phosphorous bomb attacks in the eastern region of Lugansk.

### **What is a phosphorus bomb?**

- Phosphorus is a chemical that ignites when exposed to air, burning above 800 degrees Celsius.
- Similar to the napalm used in the Vietnam War, white phosphorus self-oxidizes.
- When white phosphorus comes in contact with human skin, it can cause both thermal and chemical burns.
- It is almost impossible to put out once it touches the skin, leading to



extreme injuries and sometimes death.

- It can produce several chemicals when it comes in contact with the skin, such as phosphorus pentoxide.
- Phosphorus pentoxide reacts with water in the skin and produces phosphoric acid that is highly corrosive.
- The burn injuries caused by white phosphorus can damage underlying tissues that delay the healing process.
- White phosphorus can be systematically absorbed by the body and cause damage to the internal organs.
- The particles of white phosphorus could remain in the wound and the reignite when in contact with the air.

#### **What law says about the use of phosphorus bombs?**

- International law prohibits use of white phosphorus shells in heavily populated areas but allows in open spaces to be used as cover for troops.
- The bombing of a civilian town with phosphorus bombs could be a war crime and a crime against humanity, according to the Rome Convention.
- Additional Protocols to the 1977 Geneva Convention prohibited the utilization of white phosphorus munitions if they pose a threat to civilians.
- Phosphorus bombs can be used on battlefields to make smoke screens, generate illumination, mark targets or burn bunkers and buildings.
- If phosphorus munitions are used against people, they're then classed as a chemical weapon that is prohibited under Chemical weapons Convention 1997.
- White phosphorus has not been categorised as an incendiary or chemical weapon by international agencies but United Nation considers it so.

## **Topic 30. RUPEE STERILIZATION**

### ***Importance for Prelims: Economy***

The rupee is unlikely to be majorly impacted because the recent episodes of rupee volatility has been much less. also the lower forex volatility in India have diminished the depreciation risks, a research report from state bank of India (SBI) aforesaid.

#### **What Is Sterilization?**

- Sterilization is a form of the monetary action in which a central bank seeks to limit the effect of inflows and outflows of capital on the money supply.
- Classical sterilization involves central banks conducting buy and sell operations in open markets.
- Sterilization most frequently involves the purchase or the sale of financial assets by a central bank and is designed to offset the effect of foreign exchange intervention.
- The sterilization process is used to manipulate the value of one domestic currency relative to another and is initiated in the foreign exchange market.
- Example of Sterilization A U.S. investor looking to invest in India should use dollars to get rupees.
- If a lot of U.S. investors start buying up rupees, the rupee exchange rate can increase.
- At this point, the Indian central bank will either let the fluctuation continue, which may drive up the price of Indian exports, or it can purchase foreign currency with its reserves in order to drive down the exchange rate.
- If the central bank decides to buy foreign currency, it can attempt to offset the increase of rupees in the market by selling rupee-denominated government bonds.