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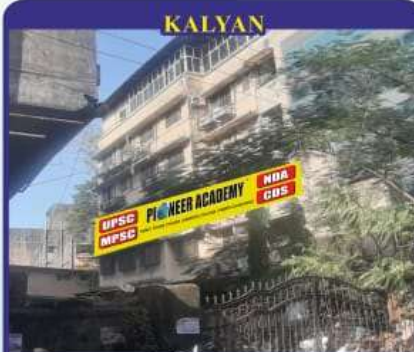
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Success is born of action...

Topic 1. SAVITRIBAI AND JYOTIRAO PHULE

Importance for Prelims: History



Governor Bhagat Singh Koshiyari has recently received the flak for his remarks on the social reformist couple Jyotirao and Savitribai Phule.

About Savitribai Phule:

- Savitribai Phule (3 January 1831 – 10 March 1897) was an Indian social reformer, educationalist, and poet from Maharashtra.
- She is regarded as the first female teacher of India.
- Along with her husband, Jyotirao Phule, she played an important and vital role in the rising women's rights in India.
- She is regarded as the mother of Indian feminism.
- Savitribai and her husband founded one of the first Indian girls' school in the Pune, at Bhidewada in 1848.
- It was the country's first school for women started by Indians.
- She worked to get rid of the discrimination and unfair treatment of people

based on caste and gender.

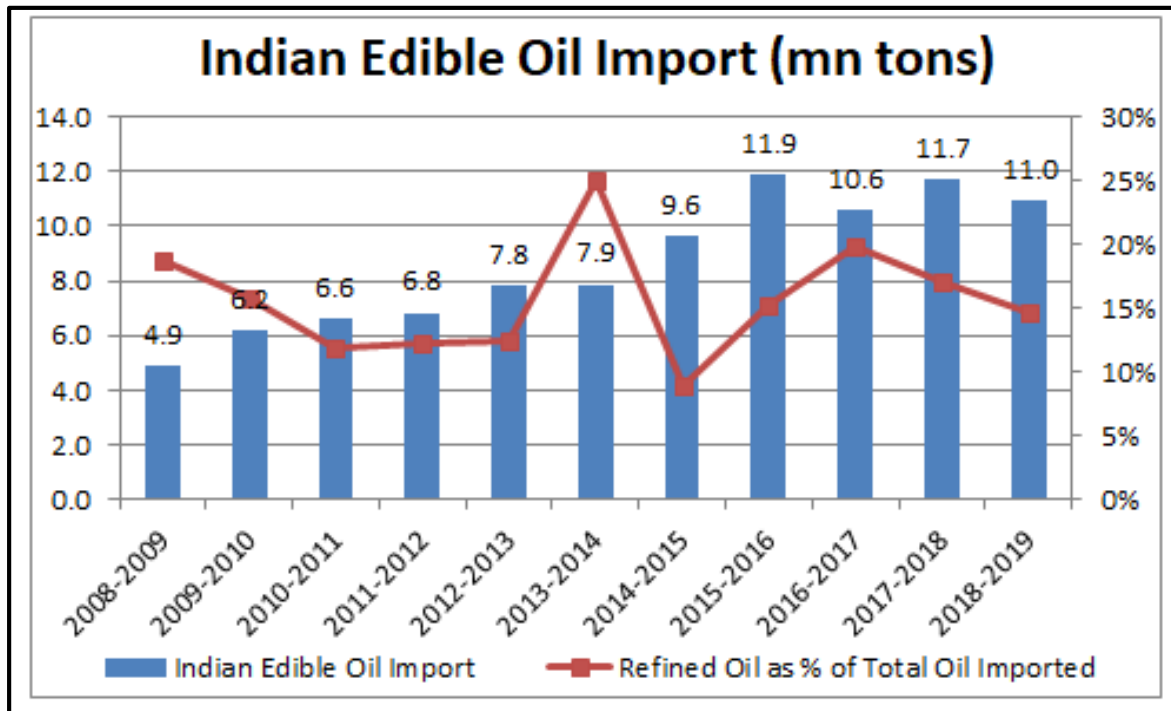
- In the 1850s, the Phule couple initiated 2 educational trusts—the Native female school, Pune and the Society for Promoting the Education of Mahars, Mangs and Etceteras—which came to have many schools under them.
- She published the Kavya Phule in 1854 and Bavan Kashi Subodh Ratnakar in 1892.
- In her poem, Go, Get Education, she urges the oppressed communities to get an education and break free from the chains of oppression.
- In 1852, Savitribai started the MahilaSeva Mandal to raise awareness about women's rights.
- She simultaneously campaigned against child marriage, while supporting widow remarriage
- **About Jyotiba Phule:** Jyotirao Govindrao Phule (11 April 1827 – 28 November 1890) was an Indian social activist, thinker, anti-caste social reformer and writer from Maharashtra.
- His work extended to many fields, including eradication of untouchability and the caste system and for his efforts in educating women and oppressed caste people.
- He and his wife, Savitribai Phule, were pioneers of women's education in India.
- Phule started his first school for girls in 1848 in Pune at TatyasahebBhide's residence or Bhidewada.
- He, along side his followers, formed the Satyashodhak Samaj (Society of Truth Seekers) to achieve equal rights for people from lower castes.
- Phule's akhandas were organically linked to the abhangs of Marathi Varkari saint Tukaram.
- **Among his notable published works are** the Tritiya Ratna, 1855

Brahmananche Kasab, 1869 Powada 1869 Manav Mahammand (Muhammad) (Abhang) Gulamgiri, 1873 ShetkarayachaAasud (Cultivator's Whipcord), 1881 Phule was influenced by Thomas Paine's book titled The Rights of Man and believed that the only resolution to combat the social evils was the enlightenment of women and members of the lower castes.

- It is believed by many that it was Phule who first used the term 'Dalit' for the depiction of oppressed masses often placed outside the 'varna system'.
- He was bestowed with honorific Mahātmā title by Maharashtrian social activist Vithalrao Krishnaji Vandekar in 1888.

Topic 2. EDIBLE OIL SCENARIO IN INDIA

Importance for Prelims: Geography



The war in Ukraine exposes India's vulnerability in edible oils similar to what the 1991 Gulf War did vis-à-vis petroleum.

Edible Oil Scenario:

- Oil seeds and edible oils are two of the most sensitive essential commodities.
- India is one of the biggest producer of oilseeds in the world.
- India is the second largest consumer and largest importer of vegetable oil within the world.
- Sunflower is India's fourth most consumed cooking oil, after palm, soyabean and mustard.
- The country imports about 98 per cent of its sunflower oil requirement — almost 93 per cent of that coming from Ukraine and Russia.
- India also imports the bulk of its soyabean oil from Argentina and Brazil and palm oil from Indonesia and Malaysia.

- The on-going conflict and disruption in shipments from Black Sea ports is rubbing off on these oils too, compounded by dry weather in South America and Indonesia imposing a 20 % domestic market sale obligation on its palm oil exporters.
- Types of Oils commonly in use in India: India has a wide range of oilseeds crops grown in its different agro climatic zones.
- Groundnut, mustard, rapeseed, sesame, safflower, linseed, nigerseed, castor are the most important traditionally cultivated oilseeds.
- Soybean and sunflower have also assumed importance in recent years. The.
- Coconut is most important amongst the plantation crops.
- Among the non-conventional oils, rice bran oil and cottonseed oil are the most important.
- In addition, oilseeds of tree and forest origin, which grow mostly in tribal inhabited areas, are also a significant source of oils.
- Consumption Pattern of Edible Oils in India: the India could be a large country and inhabitants of several of its regions have developed specific preference for certain oils largely depending upon the oils available in the region.
- As an example, people within the South and West like peanut oil whereas those in the East and North use mustard.
- Rapeseed oil Likewise many pockets in the South have a preference for coconut and sesame oil.
- Oils such as soyabean oil, cottonseed oil, sunflower oil, rice bran oil, palm oil and its liquid fraction- palmolein which were earlier not known have now entered the kitchen.
- The share of raw oil, refined oil and vanaspati in the total edible oil market is estimated roughly at 35%, 60% and 5% respectively.

- About 56 % of domestic demand of edible oils is met through imports out of which palm oil/palmolein constitutes about 54%.
- Import of edible oils is under Open General License (OGL).

Topic 3. CBIC & CBDT

Importance for Prelims: Economy

Finance Minister Nirmala Sitharaman on Monday came down heavily on the tax boards for allegedly not responding to grievances of tax assesseees, and directed officials to reserve Saturdays to hold meetings with them.

CBIC & CBDT Mandate:

- CBDT and CBIC have been created under the Central Boards of Revenue Act, in 1963.
- Both Boards are a part of the Department of Revenue under the Ministry of Finance.
- **Central Board of Direct Taxes (CBDT):** The Central Board of Direct Taxes (CBDT) is the authority vested with the responsibility of the administration of laws related to direct taxes through the Department of Income Tax.
- It provides inputs for policy and planning of direct taxes in India.
- Direct Taxes include taxation, corporation tax etc.
- **Central Board of Indirect Taxes and Customs (CBIC):** The Central Board of Indirect taxes and Customs (CBIC) is the national nodal agency which is responsible for the administration of Customs, GST & Narcotics in India.
- The Central Board of Excise and Customs (CBEC) was renamed as the Central Board of Indirect Taxes and Customs (CBIC) in 2018 after the roll out of Goods and Services Tax (GST).
- It deals with the tasks of formulation of policy concerning levy and collection of customs, central excise duties, Central Goods & Services Tax (CGST) and Integrated GST (IGST).
- **Functions and structure of the Department of Revenue:** The Department of Revenue is mainly responsible for the following functions:

- All matters relating to levy and collection of Direct Taxes.
- All matters relating to levy and collection of Indirect Taxes.
- Investigation into economic offences and enforcement of economic laws.
- Framing of policy for cultivation, export and fixation of price of opium etc.
- Prevention and combating abuse of Narcotic drugs and psychotropic substances and illicit traffic therein.
- Enforcement of Federal Emergency Management Agency and recommendation of detention under COFEPOSA.
- Work relating to forfeiture of property under Smugglers and foreign exchange Manipulators (Forfeiture of Property) Act, 1976 and Narcotics drugs and psychotropic Substances Act, 1985.
- Levy of taxes on sales in the course of inter-state trade or commerce. Matters relating to consolidation/reduction/exemption from payment of Stamp duty under Indian Stamp Act, 1899.
- Residual work of Gold Control Matters relating to CESTAT.
- Cadre control of IRS (Group-A) and IRS (C&CE) (Group-A).

Topic 4. SWATANTRATA SAINIK SAMMAN YOJANA (SSSY)

Importance for Prelims: Governance



The Centre has been approved an allocation of ₹3,274.87 crore for the continuation of the Swatantrata Sainik Samman Yojana (SSSY).

- This is often a Central scheme for the grant of pension to freedom fighters and their families from the Central Revenues..
- It was introduced by the Government of India.
- The Scheme provides for the grant of pension to living freedom fighters and their families, if they are no more alive, and to the families or martyrs.
- The scheme provides for a monthly Samman Pension to freedom fighters, as a token of respect for their contribution in the national freedom struggle and on their demise, to their eligible dependents viz.
- spouses and thenceforth, unmarried and unemployed daughters and dependent parents, as per prescribed eligibility norms and procedure.
- Swatantrata Sainik Samman Pension Scheme was launched in 1972 during the silver jubilee year of independence which grants pension to

freedom fighters and their eligible dependents if the freedom fighter had already expired.

- Later in 1980, it was liberalized and renamed as Swatantrata Sainik Samman Pension Scheme, and made effective from August the same year.
- In 2017, when the 12th Five Year Plan ended, the NDA government approved the continuation of the scheme after renaming it as Swatantrata Sainik Samman Yojana (SSSY) up to 2020.

Topic 5. CENTRAL ADMINISTRATIVE TRIBUNAL (CAT)

Importance for Prelims: Polity

The Delhi high court on Monday dismissed a petition by former West Bengal Chief Secretary Alapan Bandyopadhyay challenging the transfer of a case against him from the Kolkata bench of the Central Administrative Tribunal (CAT) to New Delhi. The CAT chairperson has the administrative powers to transfer the case to a different bench, the court said.

- Bandyopadhyay is facing an inquiry for skipping a meeting chaired by Prime Minister Narendra Modi on May twenty eight last year, in connection with Cyclone Yaas.
- Bandyopadhyay was served a show-cause notice below a stringent provision of the Disaster Management Act which entails imprisonment for up to 2 years.
- About Central administrative tribunal The Central administrative tribunal had been established under Article 323 – A of the Constitution for adjudication of disputes and complaints with respect to recruitment and conditions of service of persons appointed to public services and posts in reference to the affairs of the Union or different authorities under the control of the govt.
- In pursuance of Article 323-A, the Parliament has passed the Administrative Tribunals Act in 1985.
- The act authorises the Central government to establish one Central administrative tribunal and therefore the state administrative tribunals.
- There are seventeen Benches and twenty one Circuit Benches in the Central administrative tribunal all over India.
- The CAT is a specialist body consisting of administrative Members and Judicial Members who by virtue of their specialised knowledge are better equipped to dispense speedy and effective justice.

- **Chairman:** A chairman who has been a sitting or retired judge of a high court heads the Central administrative tribunal.
- It's exercises jurisdiction only in relation to the service matters of the parties covered by the administrative Tribunals Act, 1985.
- The Tribunal is guided by the principles of natural justice in deciding cases and is not bound by the procedure, prescribed by the Civil Procedure Code.
- **Appeals:** The orders of Central Administrative Tribunal are challenged by way of Writ Petition under Article 226/227 of the Constitution before respective High Court in whose territorial jurisdiction the Bench of the Tribunal is situated.

Topic 6. EQUALISATION LEVY IS MY SOVEREIGN RIGHT SAYS FM

Importance for Prelims: Economy

<p>OTHER MAJOR CHANGES TO FINANCE BILL</p> <p>10-year income tax holiday for state-owned DFI; 5-year tax break for private ones</p> <p>Retrospective disallowance of depreciation on goodwill acquired previously, depreciation denied from FY21</p>		<p>FM SAYS...</p> <p>Made sure no tax hikes for people</p> <p>Hopeful of meeting disinvestments targets in FY22</p> <p>Looking at rationalising customs duty structure from April</p> <p>Tax exemptions for DFIs needed for inviting investors</p>
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Over the last decade, info Technology has gone through an exponential expansion phase in India and globally.

- This has led to an increase in the supply and procurement of digital services.
- Consequently, this has given rise to numerous new business models, wherever there's a heavy reliance on digital and telecommunication networks.
- As a result, the new business models have come with a set of new tax challenges in terms of nexus, characterization, and valuation of information and user contribution.
- To bring clarity in this regard, the government introduced vide Budget 2016, the equalisation levy to give effect to one of the recommendations of the BEPS (Base Erosion and Profit Shifting) Action Plan.

What is Equalisation Levy?

- Equalization Levy is a taxation, which is withheld at the time of payment by the service recipient.

- **The two conditions to be met to be liable to equalisation levy:** The payment should be made to a non-resident service provider; The annual payment made to one service provider exceeds Rs. 1,00,000 in one financial year.
- Currently, not all services are covered under the ambit of equalisation Levy.

The following services covered:

1. Online advertisement
 2. Any provision for digital advertising space or facilities/ service for the purpose of online advertisement Now, Government has expanded its scope to all Digital Trade and Services.
- Companies with revenues of less than \$20 billion will not be part of this BEPS (Base Erosion and Profit Shifting) Base erosion and profit shifting refers to the phenomenon where corporations shift their profits to other tax jurisdictions, which usually have lower rates, thereby eroding the tax base in India.

Topic 7. RUPEE-ROUBLE TRADE

Importance for Prelims: Economy



Rupee-Rouble trade, because the name suggests, is a settlement arrangement wherever a Russian bank keeps enough INR deposits to pay off the Indian exporters to Russia in INR.

- Correspondingly on the flip side, an Indian bank keeps enough rouble deposits in Russia to pay money for Indian imports.
- For example-INR-dollar is Rs 77 and Rouble-dollar is 110.
- Ergo, Russians have to shell out 1.428 (110 by 77) Roubles for every INR.
- This is how the exchange rate between Rouble and rupee is derived indirectly.
- Under this arrangement, a Russian bank can need to open an account in an Indian bank while an Indian bank will open its account in Russia both sides will then mutually comply with hold currency worth a specified amount within the local currencies in their respective accounts.
- The two nations once embraced rupee payment for Russian export of S-400 Triumf air defence system in 2019 with the deal being for US 5.2 to 5,6 billion to escape sanctions by the US under its Countering America's

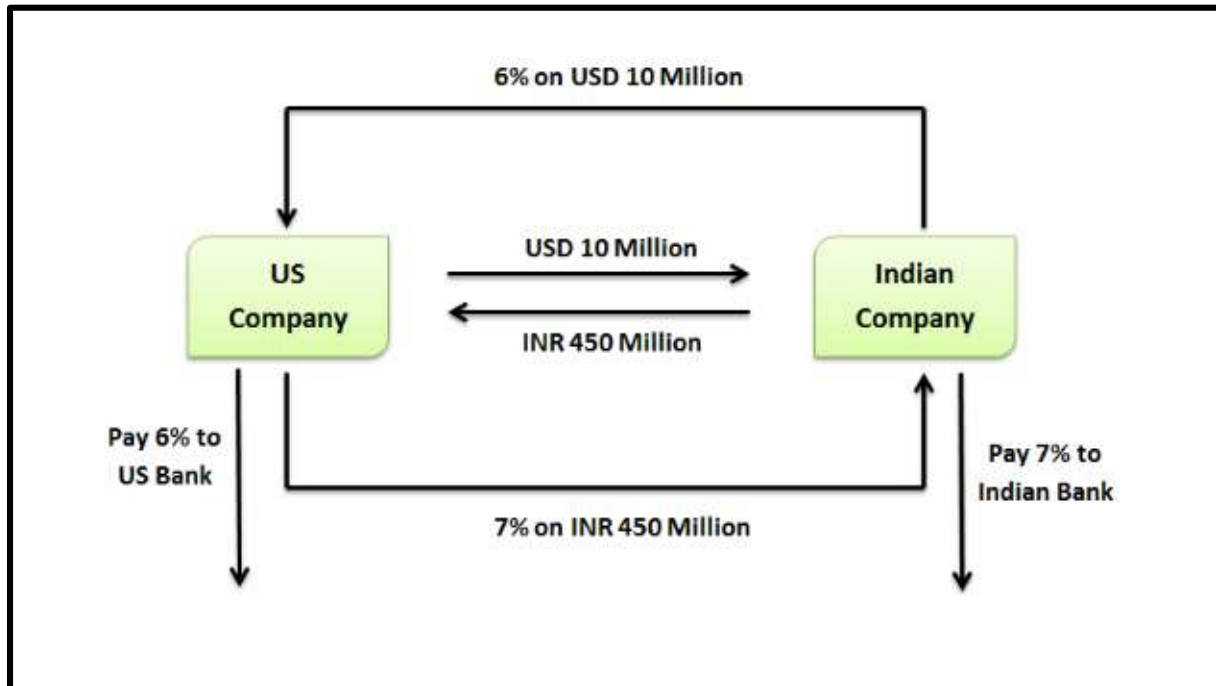
Adversaries Through Sanctions Act (CAATSA) Merits – Eliminates dependence on the US\$ for bilateral trade.

- Bypass economic sanctions like the blocking the Russian banks from the SWIFT payments network.
- A battered Rouble in the wake of its war with Ukraine works in India's favor with imports costing less. Avoid any delay or default in payments. Eliminate supply disruption Demerits US dollar being the link currency for determining the exchange value of any two currencies with both Rouble and INR not being hard currencies i.e., freely floating in the international currency markets.
- The valuation is actually a key issue for pegging the rouble-rupee exchange rate.
- All the global currencies are coded against the dollar only.
- If there is no way to know the dollar -rouble rate, there is no way to know rupee-rouble prices either.
- Not useful in commodity specific trade bans.
- Volatility-The fluctuation in the value of rouble could make it difficult to implement the rupee-rouble payment mechanism.
- Firstly, it will be difficult to decide a fair exchange rate between the rupee and the rouble.
- Moreover, if the value of the rouble continues falling sharply, then trading may not happen as the rouble in the Indian bank's Russian account will lose value.
- If India helps Russia flout economic sanctions, it may then be accused of siding with Russia and this could hurt New Delhi's diplomatic relations with the Western power Alternatives Cryptocurrency Barter trade India's flagship payments system Unified Payments Interface could also be potentially linked to Russia's own System for Transfer of Financial

Messages. Stable peg to rupee-rouble

Topic 8. FOREIGN EXCHANGE SWAP

Importance for Prelims: Economy

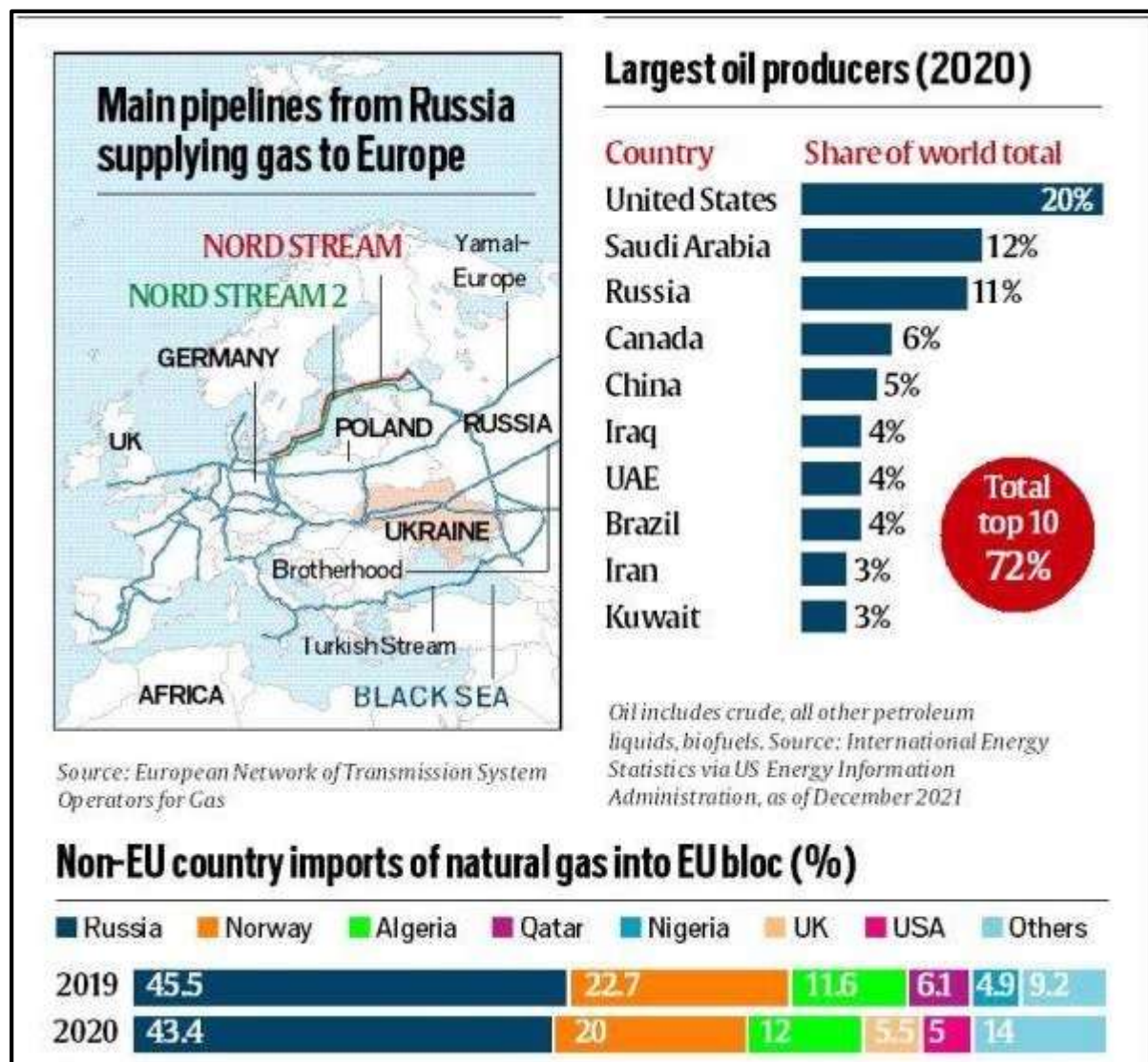


- It's a forex tool whereby the central bank uses its currency to buy another currency or the vice versa. during a Dollar–Rupee buy/sell swap, the central bank buys dollars (US dollars or USD) from banks in exchange for Indian Rupees (INR) and straightaway gets into an opposite deal with the banks promising to sell dollars at a later date.
- In a dollar–rupee sell/buy swap it sells USD in exchange for INR and promises to buy dollars from banks after some years.
- On March 10, the RBI will sell USD 5 billion to banks that have bid at the lowest currency premium.
- The intent here is that the central bank acquires dollars from the seller, charging the lowest premium possible for the two-year tenor.
- Accordingly, The banks that bid at the lower range of the auction are successful at the auction.
- Assuming a greenback rate of Rs seventy five, the system liquidity will shrink by Rs 37,500 crore.

- RBI has a 2 year window to buy back these dollars. interestingly, apart from March 10, the far leg of March thirteen, 2019's three-year USD–INR buy/sell auction falls due on March 28, 2022.
- This again is a USD five billion swap, where RBI will sell dollars to banks.
- With 2 sell auctions at play in March, nearly Rs 75,000 crore of surplus liquidity might be sucked out of the system.
- Impact (Dollar–Rupee sell/buy swap) Dollar inflows from the auction and inflows of a like amount from a maturing swap towards the month end is expected to cool the volatility in the USD-INR exchange rate Reduce the supply of money from the economy thus, decline in inflation without changing the accommodative stance of monetary policy.
- Increase in capital inflows thus, reducing current account deficit.
- Increase credibility of Gov stabilization policies and so, encourage investor and consumer confidence in the economy.
- Forex swaps help in liquidity management-longer-term to liquidity adjustment tools.
- A dollar–rupee buy/sell swap injects INR into the banking system whereas sucking out the dollars, and the reverse happens in a very sell/buy swap. Liquidity intervention through swaps indicates the RBI's plan to use a different toolkit instead of the traditional ones, and this leaves room for the central bank to buy bonds when needed.
- Consequently, the strategy will contain bond yields.
- Usually, in May, RBI makes its dividend payment to the govt for the previous fiscal.
- The excess from these swaps might be pad up the pay-outs.

Topic 9. CRUDE OIL PRICE DYNAMICS AND IMPACT

Importance for Prelims: Economy



Russia is that the third largest producer of oil in the world and, a lot of importantly, the world's largest exporter of oil and gas and the second largest exporter of oil after Kingdom of Saudi Arabia. So, disruption of provides because of the ongoing war and black sea blockage is bound to roil energy markets.

- Impact Rise in import bill and current account deficit-leading depreciation of domestic currency.
- Imported inflation and reversal of easy monetary policy Oil and natural

gas as a universal intermediate enters in multiple ways into the costs of commodities, making oil price increases a driver of overall non core-inflation Stock and commodity market crash leading to large scale capital outflow.

- Supply shortages leading to stagflation as it being the basic raw material to various industries and transportation services.
- The policy trilemma refers to the trade-offs a government faces when deciding international monetary policy.
- In particular, the policy trilemma contends that it is not possible to have all three objectives at the same time, but has to choose two from the following three options: Free movement of capital Independent (autonomous) monetary policy Fixed (managed) exchange rates

Why were oil prices rising even before the Ukraine crisis?

- The main reason is global demand was already outstripping provide.
- Reasons for low supply Russia has been holding back from providing additional supplies of natural gas to Europe.
- As the price of gas shot up, so did the price of oil as consumers shifted from gas to oil and coal Continued underinvestment in oil and gas exploration because of the “public and the regulative aversion” to fossil fuels.
- There's very limited “spare capacity” inside the OPEC-Exporting (Organization of the Petroleum exporting Countries).
- Russia's share in global exports is around 12%.
- “Russia provides close to five million barrels a day to the worldwide market which isn't an insignificant amount and a ban can immediately tighten the market further.

Why Venezuela cannot fill the gap?

- Venezuela has the world's largest oil reserves but producing oil requires more than just reserves.
- The country's oil-producing apparatus is in disrepair partially due to the government's mismanagement however also because of harsh United States of America sanctions.
- Oil-producing companies are in debt and most don't even have good quality drilling equipment

Topic 10. CRUDE OIL AND STAGFLATION

Importance for Prelims: Economy

Imported inflation, end of easy monetary policy and supply chain disruption has the potential of pushing an economy into stagflation.

- Stagflation is said to happen once an economy faces stagnant growth also as persistently high inflation.
- In other words, the worst of both worlds.
- That's because with stalled economic growth, unemployment tends to rise and existing incomes do not rise fast enough and yet, people have to contend with rising inflation.
- So people realize themselves pressurised from both sides as their purchasing power is reduced.
- The foremost famous case of stagflation happened in the early and mid-1970s when OPEC- (The Organization of Petroleum exporting Countries), that works like a decided, determined to cut supply and sent oil prices soaring across the world A 10 per cent increase in crude oil prices raises wholesale inflation by 0.9 per cent and retail inflation by 0.5 per cent.
- Higher prices will reduce this demand.
- Fewer product and services being demanded will then disincentivise businesses from investment in new capacities, which, in turn, will exacerbate the unemployment crisis and cause even lower incomes. Thus leading to Stagflation.

Can the latest spike in oil prices send India into stagflation?

- There are various indicators that suggests India is not in stagflation
Rising consumption demand
Rising private investment to around 27.9% highest in last one decade
Rising government expenditure especially the capex
Rise in trade post covid recovery
Rise in unicorns startups

Recovery in producing post covid possibilities of rise in export post Ukraine-Russia trade blockage but, it cannot be

- The average prices will perhaps hover at levels above \$100 and as India imports more than 84% of its total oil demand it will lead to imported inflation.
- Since oil is such a basic cost in our economy, this spike can likely make sure that Indians suffer from high inflation.
- A 10 % increase in crude oil costs raises wholesale inflation by 0.9 per cent and retail inflation by 0.5 per cent.
- India is facing the foremost acute unemployment crisis it's seen in the past 5 decades..
- India will see lower than previously forecast economic growth.
- It will expand 8.9% in the year ending March, according to data released Monday by the Statistics Ministry.

Topic 11. HC PULLS UP MEGHALAYA GOVT OVER COAL MINING

Importance for Prelims: Environment

The Meghalaya high court on Monday directed that the state government to set up a committee “without any political interference “to implement the ban on rat-hole coal mining put in place by the National Green Tribunal (NGT) and the Supreme Court

- The Jaintia Coal Miners and the Dealers’ Association claims there are some 60,000 coal mines across the 360 villages in East Jaintia Hills district.
- Moolamyliang used to be the one such village till the National green tribunal banned rat-hole mining in April 2014.
- Although the NGT ban did not stop illegal mining within the district, it helped Moolamyliang reform — in part because unregulated mining had contaminated its farmlands and turned the streams acidic, and also because the village dorbar, or traditional governing body, had a exchange of guard.
- The Rat Hole Mining involves digging of very little tunnels, typically only 3-4 feet high, which employees (often children) enter and extract coal.
- The National Green Tribunal (NGT) banned it in 2014, on grounds of it being unscientific and unsafe for workers.
- The state (Meghalayan) government has challenged the NGT ban in the Supreme Court.
- According to available government information, Meghalaya has a total coal reserve of 640 million tonnes, most of which is deep-mined unscientifically by individuals and communities.
- Since the coal seam is extremely thin in Meghalaya, no other method would be economically viable.

- In 2018, a minimum of 15 employees died after they were trapped in one such mine in East Jaintia Hills.
- Impacts The water sources of many rivers, especially in Jaintia Hills district, have turned acidic.
- The water also has high concentration of sulphates, iron and the toxic heavy metals, low dissolved oxygen (DO) and high BOD, showing its degraded quality.
- The roadside dumping of coal is a major source of air, water and soil pollution.
- Off road movement of trucks and other vehicles within the area for coal transportation also adds to the ecological and environmental harm the area.
- The practice has been declared as unsafe for workers by the NGT.
- The mines branch into networks of horizontal channels, which are at constant risk of caving in or flooding.

Topic 12. SARKARIA COMMISSION

Importance for Prelims: Polity

On February 13, West Bengal Chief Minister Mamata Banerjee called her Tamil Nadu counterpart M K Stalin and advised a meeting of CMs of non-BJP ruled states over the “constitutional overstepping and the brazen misuse of power by (their) Governors”.

About Sarkaria Commission:

- The Sarkaria Commission was set up in 1983 by the central government of India.
- The Sarkaria Commission’s charter was to examine the central-state relationship on numerous portfolios and suggest changes within the framework of Constitution of India.
- The Commission was so named as it was headed by Justice Ranjit Singh Sarkaria (Chairman of the commission), a retired judge of the Supreme Court of India.
- The other members of the committee were Shri B. Sivaraman (Cabinet Secretary), Dr S.R Sen (former executive of IBRD) and Rama Subramaniam (Member Secretary).
- **Recommendations on Role of Governor:** On the problem of appointment of the Governors, it created some important recommendations, as given in the following: The Governor should be eminent in some walk of the life and from outside the state.
- He should be a detached figure without intense political links, or should not have taken part in politics in the recent past.
- Besides, he shouldn't be a member of the ruling party.
- He should be appointed after effective consultations with the state Chief Minister and vice president and Speaker of the Lok Sabha should be consulted by the PM before his choice.

- Procedure of consulting the chief minister in the appointment of the state governor should be prescribed in the constitution itself As far as possible, the governor should enjoy the term of five years.
- He should be removed before his tenure only on the grounds as mentioned in the constitution or if aspersions are cast on his morality, dignity, constitutional propriety, etc.
- In the method of removal, the state government is also informed and consulted.
- Other Important Recommendations: Setting up a permanent inter-state council.
- Article 356 should be used sparingly. Residuary power should remain with the parliament.
- Reasons should be communicated to the state when state bills are vetoed by the President.
- Centre should have powers to deploy its defense force, even while not the consent of states.
- However, it is desirable that the states should be consulted.
- Institution of all-India service should be strengthened.

Topic 13. INDIA-CHINA DISPUTE

Importance for Prelims: Geography



India and China have mutually decided to carry a fresh round of Corps Commander talks at the Indian side of ChushulMoldo Meeting purpose on March 11.

- The 2 sides have so far control 14 rounds of talks, with disengagement undertaken on the north and south banks of Pangong Tso (lake), Galwan and Gogra areas.
- The other areas yet to be resolved are Hot Springs, Demchok and Depsang.
- **Pangong Tso lake:** Pangong Lake is located within the Union Territory of Ladakh.
- It is situated at a height of almost 4,350m and is the world's highest saltwater lake.

- Extending to almost 160km, one-third of the Pangong Lake lies in India and the other two-thirds in China.
- **Galwan Valley:** The valley refers to the land that sits between steep mountains that buffet the Galwan river.
- The river has its source in Aksai Chin, on China's side of the lac, and it flows from the east to Ladakh, wherever it meets the Shyokriver on India's side of the lac.
- The valley is strategically located between Ladakh within the west and Aksai Chin in the east, that is presently controlled by China as a part of its xinjiang Uyghur Autonomous Region.
- **Hot Springs and Gogra Post:** Hot Springs is just north of the Chang Chenmo river and Gogra Post is east of the point where the river takes a hairpin bend coming southeast from Galwan valley and turning southwest. it's at the southern edge of the disputed Aksai Chin region and north of the Pangong Lake basin.
- The area is north of the Karakoram Range of mountains, which lies north of the Pangong Tso lake, and south east of Galwan Valley.
- **Chang Chenmo River:** Chang Chenmo River or Changchenmo River is a tributary of the ShyokRiver, part of the Indus River system.
- It is at the southern edge of the disputed Aksai Chin region and north of the Pangong Lake basin.
- The source of Chang Chenmo is near the Lanak Pass.

Topic 14. CORAL REEFS

Importance for Prelims: Environment

Degradation, loss of coral reefs can affect 4.5 million people in southeast Asia: IPCC report.

- Coral reefs have suffered terribly in the past three decades.
- Yet, they're resilient and would be able to withstand challenges posed by a warming world, a recent study by the govt. of Australia has said.
- The study noted that since 2010, most regions had exhibited a decline in average coral cover.
- According to estimates, the coral reefs would experience further declines in the coming decades as ocean temperatures arose.
- However, there will be an increase in the world coral cover between 2002 and 2009 and in 2019 offered hope.
- It showed that coral reefs globally remained resilient and could recover if conditions permitted.
- For instance, coral reefs in East Asia, which has 30 per cent of the world's coral reefs, had more coral on average in 2019 than they did in 1983.
- This, despite the area being affected by large-scale coral bleaching events during the last decade.
- **About Coral Reefs:** Coral reefs are one of the most biologically diverse marine ecosystems on the Earth.
- Coral reefs play an important role in marine ecosystems and support the habitats of flora and fauna in the sea.
- They are the underwater structures that are formed of coral polyps that are held along by carbonate..
- Coral reefs are also regarded as the tropical rainforest of the sea and occupy just 0.1% of the ocean's surface but are home to 25% of marine

species.

- They are usually found in shallow areas at a depth less than 150 feet.
- However, the some coral reefs extend even deeper, up to about 450 feet.
- Coral polyps are the individual corals that are found on the calcium carbonate exoskeletons of their ancestors.
- Corals can be found in all the oceans but the biggest coral reefs are mostly found in the clear, shallow waters of the tropics and subtropics.
- The largest of these coral reef systems, The Great Barrier Reef in Australia, the largest coral reef is more than 1,500 miles long.
- **Coral Reefs in India:** Coral reefs are present in the areas of Gulf of Kutch, Gulf of Mannar, Andaman & Nicobar, Lakshadweep Islands and Malvan.
- Largest Coral Reef Area: Indonesia has the largest coral reef area in the world.
- India, Maldives, Sri Lanka and Chagos have the most coral reefs in South Asia.
- Great barrier reef of the queensland coast of the Australia is the largest aggregation of coral reefs.
- Major threats for the corals: Natural: Environmental-Temperature, Sediment Deposition, Salinity, pH, etc Anthropogenic: Mining, Bottom Fishing, Tourism, pollution, etc.
- **Types of Coral Reefs Coral Bleaching:** The coral and the zooxanthellae share a symbiotic relationship and 90% of the nutrients that are produced by the algae are transferred to the coral hosts.
- However this relationship gets affected under severe environmental stress which causes the loss of symbiotic algae (zooxanthellae).
- As a result, the white calcium-carbonate exoskeleton is visible through its transparent tissue leading to a condition called Coral Bleaching.

- The corals become vulnerable in the absence of the algae and begin to die if the temperature of the sea remains high for weeks.

Topic 15. MINES AND MINERALS

Importance for Prelims: Geography



The Cabinet on Wednesday opened up mining of a new group of the minerals as a part of its strategy to boost domestic mining and to cut back import dependence.

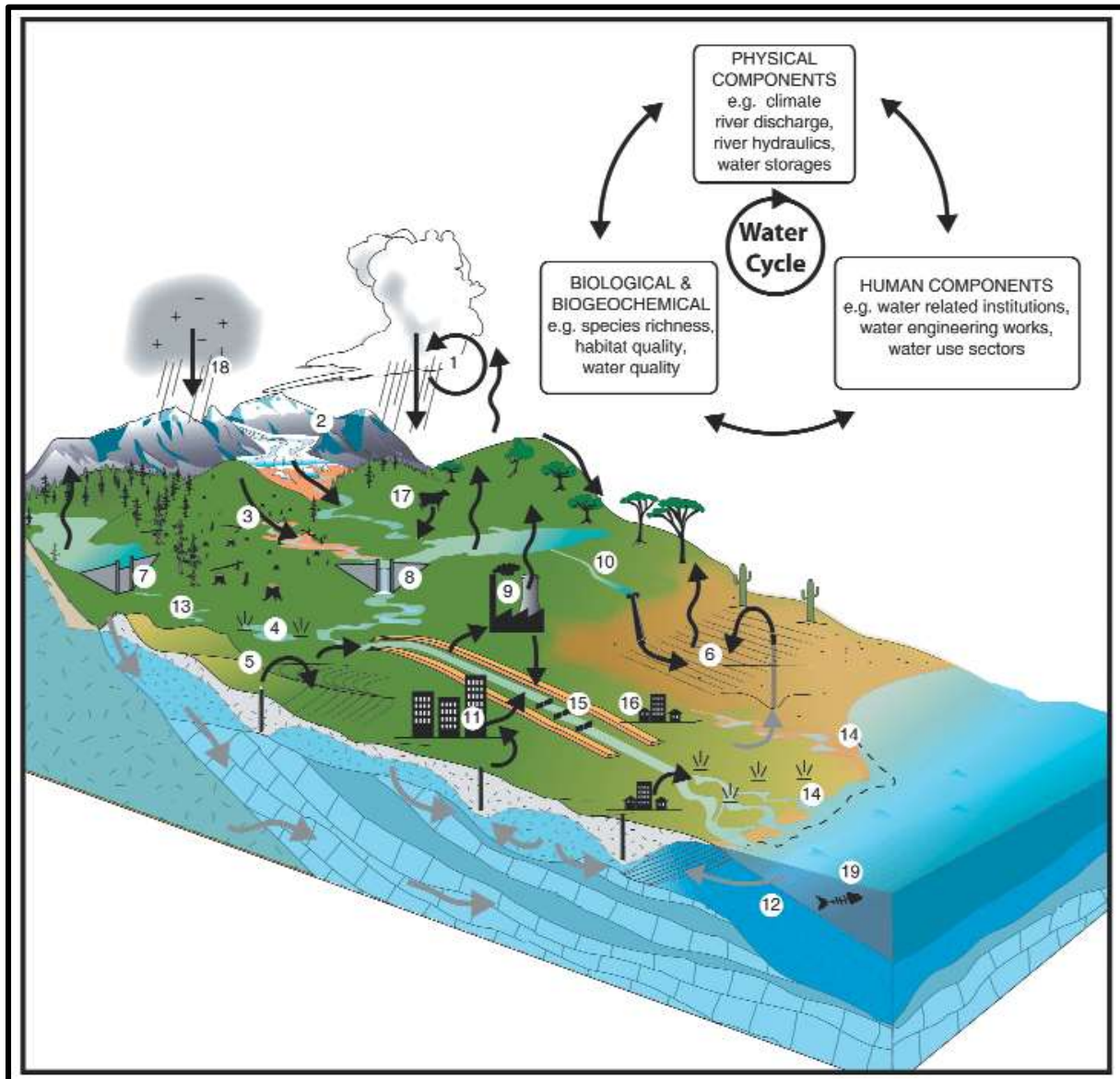
- The cabinet approved an change to the second schedule of the Mines and Minerals (Development and Regulation) Act, 1957, specifying the rate of royalty of sure minerals that include glauconite, potash, emerald, the platinum group of metals (PGM), andalusite, sillimanite and molybdenum.
- The amendment will lead to the auction of these mineral blocks for the rst time in India.

- It is also expected to reduce imports of potash fertilisers and other minerals, and ensure availability of minerals for downstream industries and support agriculture.
- It will reduce the country's foreign dependence through the local production of minerals.
- Minerals and their uses: Glaucosite, a major component of greensand, is a common source of potassium (K^+) in plant fertilizers and is also used to adjust soil pH.
- Andalusite is used as a refractory in furnaces, kilns and other industrial processes.
- South Africa possesses by far the largest portion of the world's known andalusite deposits.
- Sillimanite minerals are mainly utilised in the production of mullite or high-alumina refractories.
- 95% of the world's consumption of these minerals is used for this purpose in the manufacture of metals, glass, ceramics and cement.
- Molybdenum may be a mineral that you need to stay healthy..
- Your body uses molybdenum to process proteins and genetic material like DNA.
- Molybdenum also helps break down drugs and toxic substances that enter the body High quality emeralds are used almost exclusively for making fine jewelry.
- Emerald is regarded as the traditional birthstone as well as the traditional gemstone for the astrological signs of Taurus, Gemini, and sometimes Cancer.
- Emerald is a variety of beryl.
- The platinum group metals (PGMs) are among the rarest mineral commodities in the Earth's crust.

- They include iridium, osmium, palladium, platinum, rhodium and ruthenium.
- Today, the leading use of PGMs is in catalytic converters that clean harmful exhaust from vehicle engines.

Topic 16. GLOBAL WATER SYSTEM PROJECT

Importance for Prelims: Environment



The Sustainable Water Future Programme (Water Future) is building on a decade of coordinated international research from the Global Water System Project (GWSP).

About GWSP:

- The GWSP was a joint project of the earth System Science Partnership (ESSP), The scientifically sponsored by the International Council for the Science (ICSU) and it is four global Environmental change

(GEC)programmes:

- International Human Dimensions of Global Environmental Change Programme (IHDP) DIVERSITAS International Geosphere-Biosphere Programme (IGBP) World Climate Research Programme (WCRP).
- Since the 2004, GWSP spearheaded a broad analysis agenda and the initiated new ways of thinking about water as a complex global system, emphasizing the links between natural and human components.
- GWSP led the way to provide well-researched, integrative solutions, involving the biological and physical sciences together with economists and social sciences, to reduce the vulnerability of the earth system and to give guidance to societies through assessments and future projections of the state of the global water system.
- Water Future has evolved from GWSP, based on the recommendations outlined in the Bonn Water Declaration, with a transparent objective of promoting the adoption of science-based proof into the formulation, implementation and monitoring of goals for sustainable development.

Topic 17. COLOUR REVOLUTIONS

Importance for Prelims: IR



Aggravating the situation is that the proven fact that Ukraine was, in a sense, a child of a series of ‘Colour Revolutions’ that shook parts of the Russian Empire in 1991.

About Colour Revolutions:

- Worldwide media use the term color revolution to describe varied protest movements and accompanying attempted or successful modification of governments that took place in many countries of the former USSR, the previous yugoslavia and People’s Republic of China throughout the early 21st century.
- The term has also been more widely applied to several other revolutions elsewhere, including in the Middle East and the Asia-Pacific region and South America, dating from the late 1980s to the 2020s.
- Some of these movements have had a live of success, as an example, the Federal Republic of Yugoslavia’s bulldozer Revolution (2000), Georgia’s

Rose Revolution (2003), Ukraine's Orange Revolution (2004) and Kyrgyzstan's Tulip Revolution (2005).

- Lebanon's Cedar Revolution (2005) and Kuwait's Blue Revolution (2005). Coconut Revolution: In 2019, citizens of Bougainville voted for independence from the Papua New Guinea.
- **Velvet Revolution:** In 1989, a peaceful demonstration by students and contributed to the collapse of the communist government in Czechoslovakia.
- **Saffron Revolution:** In Myanmar a series of anti-government protests were referred to in the press as the Saffron Revolution after Buddhist monks took the vanguard of the protests.
- A previous, student-led revolution, the 8888 Uprising on 8 August 1988, had similarities to the colour revolutions but was violently repressed.

Topic 18. OLD PENSION SCHEME VS NEW PENSION SCHEME

Importance for Prelims: Governance

Recently, Rajasthan and Chhattisgarh announced the restoration of the old pension scheme (OPS) for government employees for the year 2022- 2023.

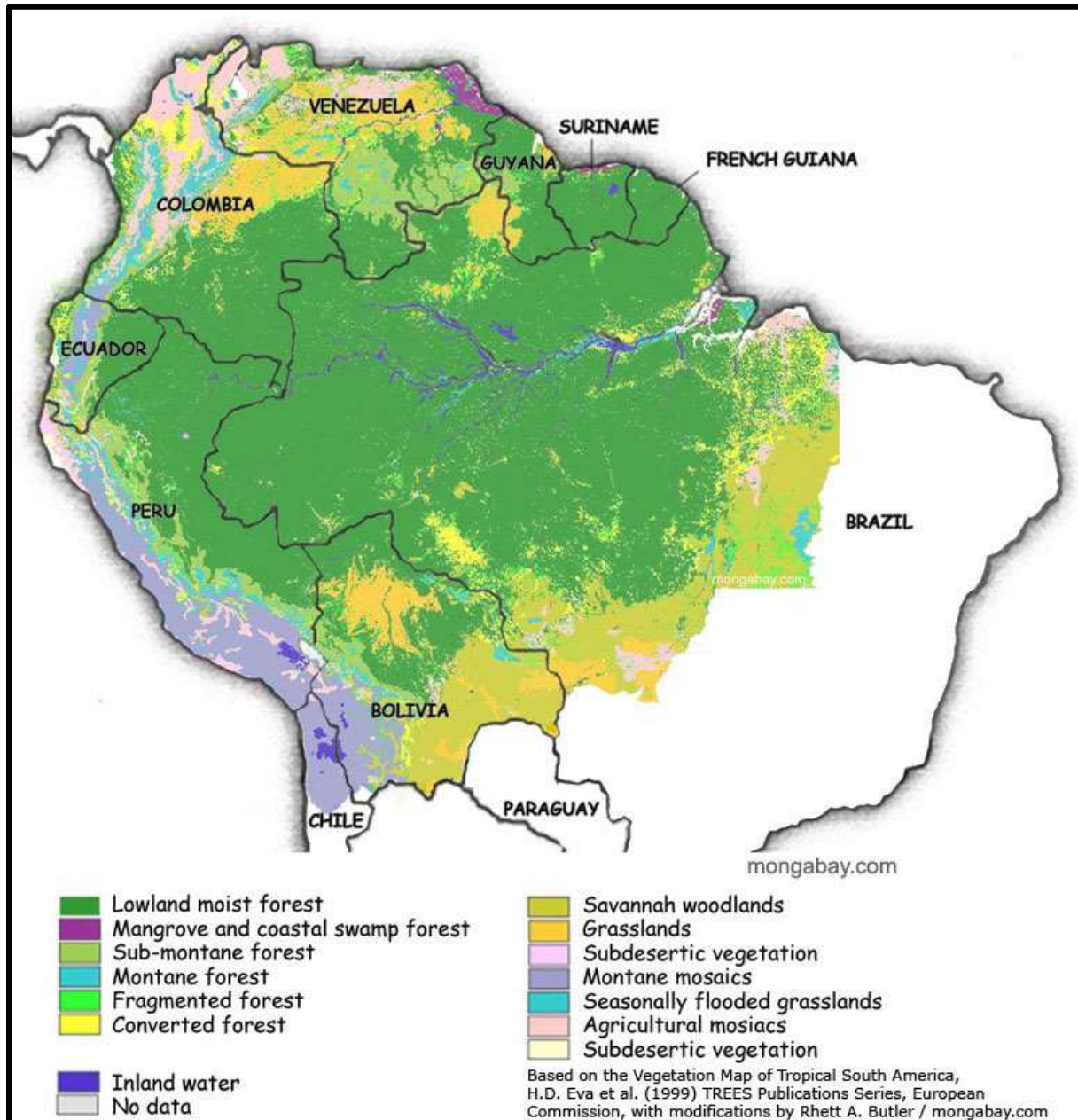
NPS vs OPS:

- The old pension scheme was done away with in December 2003 by the BJP-led central government When the Atal bihari Vajpayee was prime minister.
- Its substitute, the National Pension Scheme (NPS), took effect from April 1, 2004.
- New Pension Scheme Old Pension Scheme In the NPS, the government and employees contribute an equal portion towards the pension fund.
- The old pension scheme was outlined as opposed to the investment return-based NPS.
- The minimum payment to retired employees as pension is ₹3,500 in the NPS The old scheme provided 50% of the last drawn salary as the pension.
- NPS provides a pension fund on retirement which is 60 per cent tax-free on redemption while the rest needs to be invested in annuity which is fully taxable.
- Income from OPS is not taxed. Pension Fund Regulatory and Development Authority: It is the statutory Authority established by an enactment of the Parliament, to regulate, promote and ensure orderly growth of the National Pension System (NPS).
- It works under the Department of financial Services under the Ministry of Finance.
- It performs the function of appointing various intermediate agencies like Pension Fund Managers, Central Record Keeping Agency (CRA) etc.

- It develops, promotes and regulates the pension industry under the NPS and also administers the Atal Pension Yojana.

Topic 19. AMAZON RAINFOREST

Importance for Prelims: Environment



More than 75 percent of the Amazon rainforest has been likely heading towards a tipping point since the early 2000s, according to a new study.

- The Amazon's rainforest is the home to 30 per cent of the world's species, comprising 40,000 plant species, 16,000 tree species, 1,300 birds and over the 430 species of mammals.
- Deforestation is on the rise. According to reports, it totalled 430 square

kilometres in January 2022, five times higher than the same month last year.

- This loss will have an effect on the amount of rainfall.
- Trees take up water through the roots, releasing it into the atmosphere, influencing precipitation over South America.
- The rainforest is also a carbon sink — a place that absorbs more carbon dioxide than it releases.
- It plays an important role in the combating climate change.
- However increasing temperatures because of human-induced climate change and deforestation are pushing the rainforest to transform into a carbon source: Places that release a lot of CO₂ than they absorb.
- **About Amazon Rainforest:** Comprising about 40% of Brazil's total area, it is bounded by the Guiana Highlands to the north, the Andes Mountains to the west, the Brazilian central plateau to the south, and the Atlantic Ocean to the east.
- These are large tropical rainforest occupying the drainage basin of the Amazon River and its tributaries in northern South America and covering an area of 6,000,000 square km.
- Tropical forests are closed-canopy forests growing within 28 degrees north or south of the equator.
- They are very wet places, receiving more than 200 cm rainfall per year, either seasonally or throughout the year.
- Temperatures are uniformly high – between 20°C and 35°C.

Topic 20. TERMS OF TRADE

Importance for Prelims: Economy

The surge in energy prices due to the Russia-Ukraine conflict could trigger a 'terms-of-trade' shock for large net energy importers like India

- Terms of trade are outlined because the ratio between the index of export costs and the index of import costs.
- • If the export costs increase more than the import costs, a country has a positive terms of trade, as for a similar amount of exports, it can purchase more imports.
- An abrupt amendment in a country's terms of trade (e.g. -A drastic fall in the value of a primary product that's a country's main export) will cause serious balance-of-payments issues if the country depends on the foreign exchange earned by its exports to pay money for the import of its manufactured product and capital equipment.
- Factors determining terms of trade of a country Reciprocal demand, i.e. "the strength and elasticity of every country's demand for the other country's product"-If India's demand for Russia's natural gas becomes a lot of intense (inelastic), the worth of natural gas (India,s import) rises more than the price of India's export, the commodity terms of trade will move against India and in favour of Russia.
- Tariff-When a country imposes tariffs on imports from the foreign country, it implies a lesser willingness to absorb the foreign product, probably to boost the terms of trade for the tariff- imposing country.
- Tastes or preferences of the people in India shift from the natural gas of Russia to its own Coal, the terms of trade will become favourable to India.
- In an opposite situation, the terms of trade can turn against this country.
- Changes in factor endowment-If there is an increase in the supply of

labour in India, specialising in the production of labour-intensive commodity cloth, the fall in labour cost will lower the price of cloth (export).

- Consequently, more quantity of cloth will be offered by India for the same quantity of Natural gas from Russia resulting in the terms of trade becoming unfavourable to India.
- If labour becomes scarcer in this country, the terms of trade are likely to become favourable for it.
- Changes in technology-As there is technological improvement in the home country, say A, there is rise in productivity and/or a fall in the cost of producing exportable commodities, say cloth.
- If technological progress is labour-saving in this labour-intensive export sector (cloth industry) there will be worsening of the terms of trade.
- In case this kind of technical progress takes place in the import-competing sector during this country, there'll be an improvement in the terms of trade.
- If capital-saving technical progress takes place in the labour-intensive export sector, there will still be the chance of improvement in the terms of trade.
- Growth-As in the of labour within the labour- abundant country
- A increases or growth takes place.
- The cost and price of exportable commodities falls leading to the terms of trade decline for the growing home country A, although the volume of trade will get enlarged.
- If the supply of scarce factor capital will increase, subsequent to growth, the cost } and price of importable good steel can fall relative to the value of cloth.
- This can cause the improvement in the terms of trade for the growing

home country A however the volume of trade will get reduced.

- Devaluation causes a lowering of export prices relative to import prices, the terms of trade are supposed to get worsened after devaluation of the home currency.
- Balance of Payments Position-If a country is faced with a deficit in balance of trade and payments and it's to adopt measures intended to restrict import and enlarge exports such as the internal deflation, devaluation, import and the exchange controls, the terms of trade are likely to get worsened.
- International Capital Flows-An increased flow of capital from abroad involves larger demand for the merchandise of the creditor country and ensuant rise in the costs of imported product.
- Import Substitutes-If there's sufficient production of close substitutes for import merchandise at intervals the home country, its reciprocal demand for the foreign merchandise are going to be weak and therefore the terms of trade are likely to become favourable for the home country.
- Impact of worsening terms of trade due to Ukraine war- (impact of ukraine war already explained) A decline in the terms of trade means the price of exports falls relative to imports.
- **Thus, following impact:** Imports become more expensive leading to the current account deficit imported inflation Capital outflows Depreciation of domestic currency need for export for a given import- supply disruption declining living standards and lower GDP leading reduce export revenue and make it harder to pay foreign external debt Decline of forex reserve Stagflation-high inflation and lower output.

Topic 21. CURRENT ACCOUNT DEFICIT

Importance for Prelims: Economy

It is expected that the current account deficit of India can widen to a 10- year high of 3 % of gross domestic product in FY23 because of the Ukraine War

- **Balance of Payments** Balance of Payments (BoP) of a country can be defined as a systematic statement of all economic transactions of a country with the rest of the world throughout a specific period typically one year.
- For preparing BoP accounts, economic transactions between a country and therefore the rest of the world are grouped under – current account, Capital account and Errors and Omissions.
- It also shows changes in Foreign Exchange Reserves.
- **Current Account:** It shows export and import of visibles (also called merchandise or goods – represent trade balance) and invisibles (also called non-merchandise). Invisibles include services, transfers and income.
- Thus, The balance of trade in goods The balance of trade in services.
- Net current income e.g. profit from overseas investment.
- Transfer payments e.g. payments to the EU.
- The balance of exports and imports of products is referred to as the balance of trade.
- Balance of trade could be a part of ‘Current Account Balance’.
- **Capital Account:** It shows a capital expenditure and income for a country.
- It gives a summary of the net flow of both non public and public investment into an economy.
- External commercial Borrowing (ECB), Foreign Direct Investment, Foreign Portfolio Investment, etc type a part of capital account.

- Errors and Omissions: Sometimes the balance of payments does not balance.
- This imbalance is shown in the BoP as errors and omissions.
- It reflects the country's inability to record all international transactions accurately.
- **Changes in Foreign Exchange Reserves:** Movements in the reserves comprises changes in the foreign currency assets control by the reserve bank of India (RBI) and also in Special Drawing Rights (SDR) balances.
- Overall the BoP account is a surplus or a deficit.
- If there is a deficit then it can be bridged by taking money from the Foreign Exchange (Forex) Account Current Account DeficitIt is expected that the current account deficit of India will widen to a 10-year high of 3 percent of GDP in FY23 due to the Ukraine War A current account deficit occurs when the total value of merchandise and services a country imports exceeds the entire value of products and services it exports..
- If there's a deficit on the current account, there'll be a surplus on the Financial/Capital account to compensate for the net withdrawals.
- The size of current account deficit/surplus is affected by several factors including: Overvalued exchange rate-If the currency is overvalued, imports will be cheaper, and therefore there will be a higher quantity of imports. Exports will become uncompetitive, and therefore there will be a fall in the quantity of exports Economic growth-If there is an increase in national income, people will tend to have more disposable income to consume goods.
- If domestic producers cannot meet the domestic demand, consumers will have to import goods from abroad.
- Saving rates – influencing the level of the import spending, thus increasing the deficit.

- Decline in competitiveness/export sector-In the united kingdom, there has been a decline in the exporting producing sector as a result of it's struggled to compete with developing countries in the far east.
- This has led to be a persistent deficit in the balance of trade.
- Higher inflation-If India's inflation rises faster than our main competitors then it will make UK exports less competitive and imports more competitive.
- However, the inflation may also lead to a depreciation in the currency to offset this decline in competitiveness.
- Recession in other countries-If India's main trading partners experience negative economic growth, then they will buy less of our exports, worsening India's current account.
- Borrowing money-If countries are borrowing money to invest e.g. third world countries, then this will lead to deterioration in current account position.
- Financial flows to finance the current account deficit.-If a country can attract more financial flows (either short-term portfolio investment or long-term direct investment), then these flows on the financial account can enable the country to run a bigger current account deficit.
- Impact for the economy price Push inflation- because of supply shortage
Rise in import bill Decline in forex reserve Rise capital inflows- If there's a deficit on the current account, there'll be a surplus on the Financial/Capital account to compensate for net withdrawals.
- However, capital flows are the current to be less than the present account deficit because of war led outflows. Higher external borrowing

Topic 22. BIOLOGICAL AND CHEMICAL WEAPON

Importance for Prelims: IR



Russia claimed that U.S. had Chemicals and bio-weapons labs in the Ukraine.

About Biological and Toxic Weapons Convention 1972:

- The Biological Weapons Convention (BWC), or Biological and Toxin Weapons Convention (BTWC), is a disarmament treaty that effectively bans biological and toxin weapons by prohibiting their development, production, acquisition, transfer, stockpiling and use.
- The treaty's full name is the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction.
- This agreement was signed in 1972.
- It came into force in 1975. As of 2019, 109 countries have signed the treaty and 183 nations are party to this treaty.
- Tanzania was the foremost recent country to become a party to the accord..
- It was the 1st multilateral disarmament treaty to ban the production of Biological Weapons. India ratified this treaty in 2015.

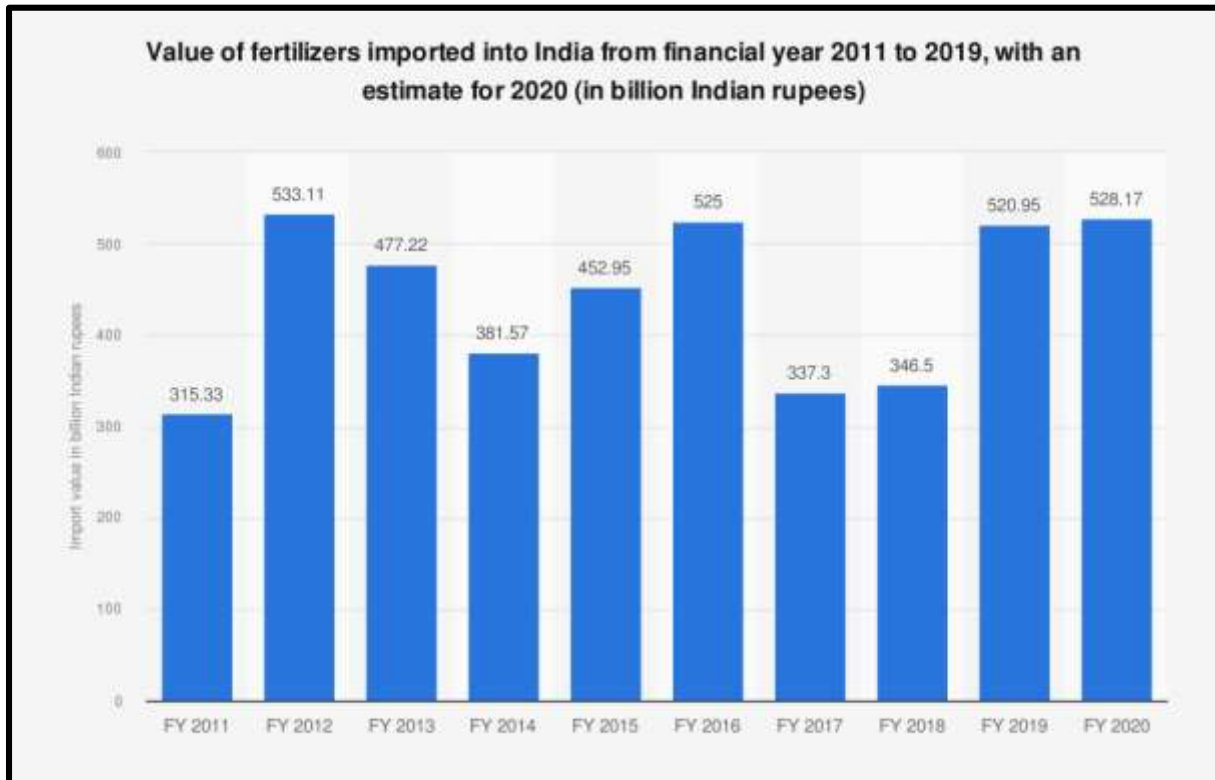
- **Bio Weapons:** There are 3 types of agents used based on the ability and extent of damage that can be caused.
- **They are: Category A:** High-priority agents. Example: Anthrax, Ebola virus.
- **Category B:** Moderate-priority agents. Example: Brucellosis, Q fever
- **Category C:** Low-priority agents. Example: Yellow fever virus, Hantavirus.
- **Some of the deadliest biological weapons that have been used are:**
 - **Anthrax:** Caused by bacteria named *Bacillus Anthracis*.
 - It is one amongst the deadliest agents to be used as a biological weapon. it's been used with food, water, spray, powders.
 - It is completely tasteless and odourless.
- **Botulinum Toxin:** It is caused by naturally found bacteria named *Clostridium Botulinum*.
- It may be utilized by contaminating food and water.
- It was known to be used by Japan on Prisoners of War (POW) during the occupation of Manchuria.
- **Francisella Tularensis:** As per a former USSR scientist, this was used as a biological weapon against the Nazi Army of Germany by the USSR Army in the in the Battle of Stalingrad of World War II.
- **Aflatoxin:** Iraq had produced and deployed different weapons armed with Aflatoxin.
- It had been noted by the United Nations Special Commission (UNSCOM) in 1995..
- However, it was destroyed during the Gulf War.
- **Chemical Weapons Convention:** A chemical weapon could be a chemical used to cause intentional death or damage through its poisonous

properties.

- CWC is a multilateral pact banning chemical weapons and requiring their destruction among the stipulated time.
- Negotiations for the CWC began in 1980 at the United Nations Conference on Disarmament.
- The convention was drafted in September 1992 and opened for signature in January 1993.
- It became effective from April 1997.
- It makes it mandatory to destroy old and abandoned chemical weapons.
- Members should also declare the riot-control agents (sometimes referred to as 'tear gas') in possession of them. It has 192 state parties and 165 signatories.
- India signed the treaty in January 1993. Convention Prohibits: The development, production, acquisition, stockpiling, or retention of chemical weapons.
- Transferring of chemical weapons. Using chemical weapons.
- Assisting different States to indulge in activities that are prohibited by the CWC.
- Using riot-control devices as 'warfare methods'.

Topic 23. INDIA FERTILIZER IMPORT

Importance for Prelims: Geography



Shortage of fertilizers

- Types Primary fertilizers includes Nitrogen, Phosphorus, Potassium Nitrogenous – Urea Phosphatic – Di-ammonium Phosphate Potassic – Muriate of Potash (MoP) fertilizers.
- Secondary fertilizers include Calcium, Magnesium and Sulphur. Some micronutrients include – Zinc, Iron, Boron, Chloride etc.
- India is that the 3rd largest producer of fertilizer once China & the USA.
- India is the 2nd largest consumer of fertilizer after china. India also ranks 2nd in the production of nitrogenous fertilizers and 3rd in phosphatic fertilizers.
- Potash requirement is met through imports since we have limited reserves of potash.
- Although India progressed loads with respect to the production and consumption of fertilizers, it still lags behind many countries in

consumption per hectare. Pakistan, China, and Bangladesh have additional consumption per hectare of fertilizer than India..

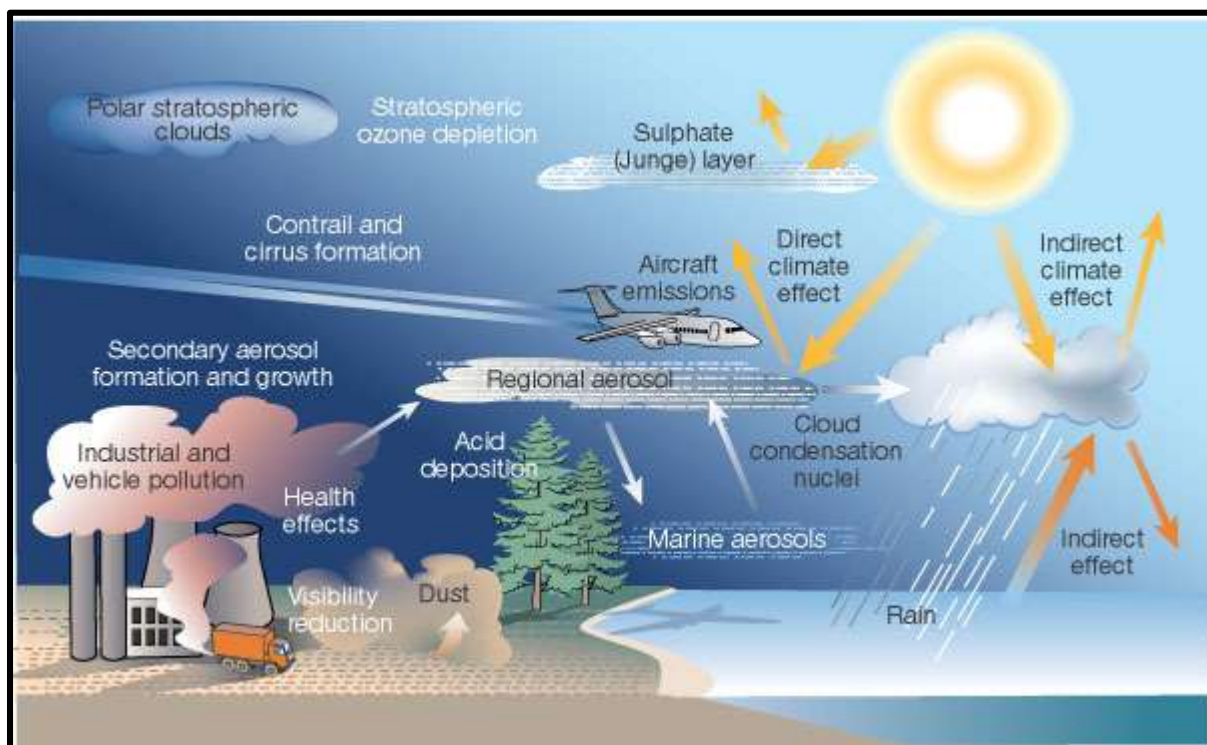
- The self-sufficiency in urea production achieved by 2000 was lost because of unfriendly policies that discouraged further investments in the sector for 2 decades and also because of the privatisation move and closure of variety of plants on account of low energy potency that paved the way for large-scale imports.
- India depends heavily on imports for meeting its fertilizer raw materials (natural gas, sulphur and rock phosphate), intermediates (ammonia and sulphuric and phosphoric acids), and finished products (diammonium phosphate, potash and complex fertilizers) requirements.
- India, the world's largest urea importer, Urea imports amount to 8-9 million tonnes per annum mostly from China, Oman, Ukraine, and Egypt.
- On an average, five million tonnes of phosphatic fertilizers are imported to India mostly from China, Morocco, Saudi Arabia, Russia and Jordan Potash supplies (around four million tonnes a year) are fully imported from Canada, Russia, Belarus Jordan, Lithuania, Israel, and Germany major suppliers of DAP to India-Saudi Arabia, Morocco and China.
- Presently, the fertilizer production of the country is 42-45 million tonnes, and imports are at around eighteen million tonnes.
- India's fertiliser consumption in FY20 was about sixty one million tonnes — of that fifty fifth was urea.
- Since non-urea (MoP, DAP, complex) varieties value higher, several farmers a lot of highly to|favor to|opt to|choose to} use more urea than truly required.
- The govt has taken variety of measures to cut back organic compound consumption..
- It introduced neem-coated urea to cut back smuggled diversion of urea

for non-agricultural uses.

- It is also stepped up the promotion of organic and zero-budget farming.
- **Subsidy Subsidy on Urea:** The Centre pays subsidy on urea to fertiliser manufacturers on the premise of cost of production at every plant and also the units are needed to sell the fertiliser at the government have set maximum Retail price (MRP)
- **Subsidy on Non-Urea Fertilizers:** The MRPs of non-urea fertilizers are decontrolled or fixed by the companies.
- The Centre, however, pays a flat per-tonne subsidy on these nutrients to ensure they are priced at “reasonable levels”.
- Examples of non-urea fertilizers:
- Di-Ammonium Phosphate (DAP), Muriate of Potash (MOP). Russia produces 50 million tonnes of fertilizers annually accounting for 13 per cent of the world’s total output.
- Russia produces fifty million tonnes of fertilizers annually accounting for thirteen per cent of the world’s total output.
- it's also the most important exporter of urea, NPKs, ammonia, UAN and ammonium nitrate, and also the third-largest potash exporter.

Topic 24. AEROSOL POLLUTION

Importance for Prelims: Environment



Scientists say that accurately modelling the intensity of aerosol effects on global climate change is vital to humanity's future however aerosol complexity makes it difficult to model and understand.

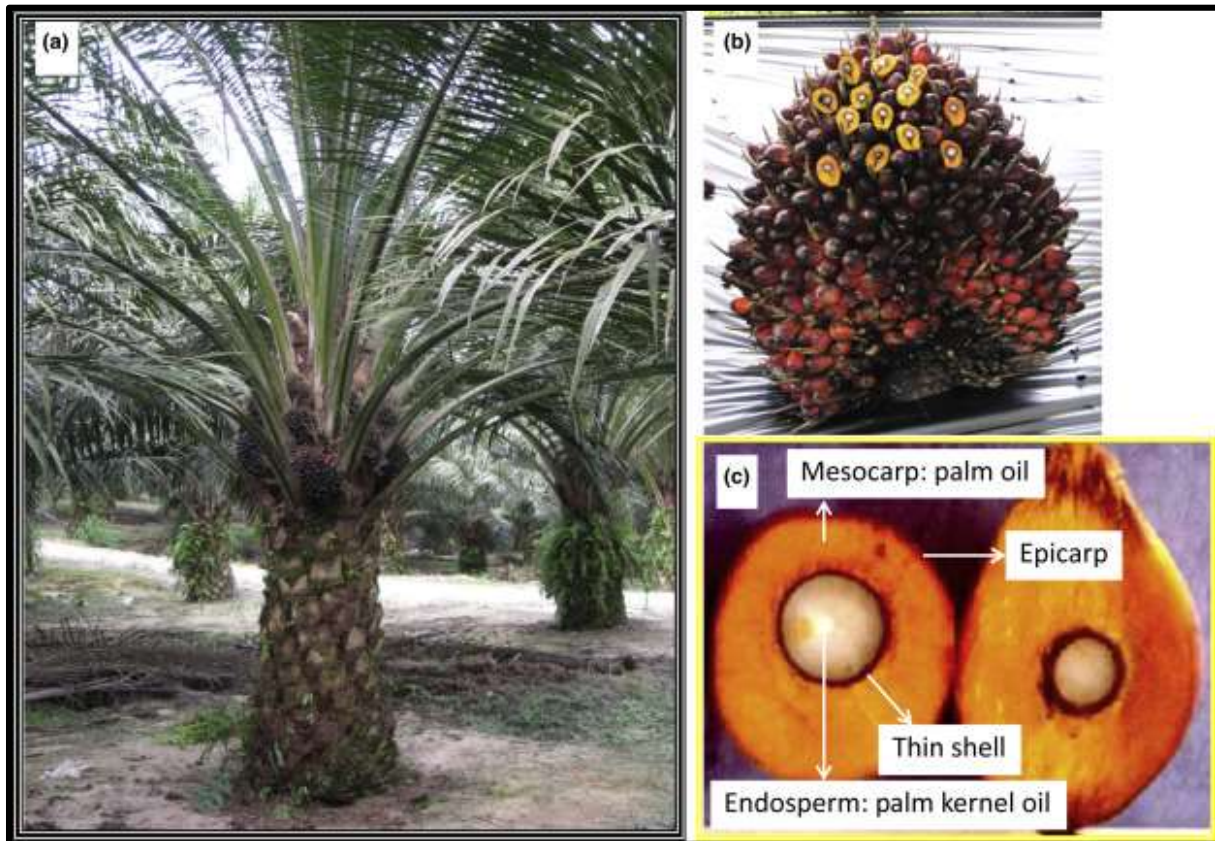
- Aerosols are fine particulates that float in the atmosphere.
- Whereas there has not been important change in presence of natural aerosols, human-caused aerosols have magnified rapidly.
- An immense aerosol cloud regularly swirls over India, China and Southeast Asia, fed by particles of ash, soot and organic carbon compounds.
- **About Aerosols:** Aerosols are a mixed bag of substances, liquid and solid, that differ from their gassy brethren.
- They tend to hang in the atmosphere near their source, or move as localised or regional lots via air currents.

- They range in size from a few atoms across to the width of a human hair.
- **They include:** crystals of sulphate, balls of almost pure black carbon (commonly, though not entirely accurately, called soot), droplets of nitric or sulfuric acid, spores of pollen.
- They may be salt freed from the crests of breaking waves, or desert sand whipped up by the wind.
- **Natural Aerosols:** One of the largest natural sources of aerosols are plankton, which breathe out dimethyl sulphide (DMS), a strong-smelling chemical that gives the sea it's familiar pungent odour.
- DMS reacts with oxygen to produce clouds of sulfuric acid. Sulphur dioxide released by volcanoes does the same.
- Ninety p.c of aerosols in the atmosphere are present, however their levels have remained relatively constant over time.
- **Anthropogenic Aerosols:** On the opposite hand anthropogenic, or human-made aerosols are emitted from: vehicle exhausts; the smokestacks of factories, ships and coal-burning powerplants; by farmers burning field stubble and land grabbers clearing Amazon forest with fire; by gas flares on oil rigs and discarded plastic shopping bags.
- Even the tumble driers release microplastic fibres that float skyward.
- These sources have increased dramatically over the commercial period, roughly in step with greenhouse gases.
- Most aerosols help cool the planet by reflecting daylight back out into space, reducing the quantity of radiant energy that reaches Earth's surface.
- They also help produce clouds or brighten existing clouds, by acting as condensation nuclei around which water vapour condenses.
- Aerosols first came to public attention in the 1970s, not so much because of their cooling impact, but due to acid rain.

- The worst aerosols are very fine particulates that can penetrate deep into the lungs and may even enter the blood stream exacerbating respiratory and cardiovascular conditions.

Topic 25. OIL PALM

Importance for Prelims: Environment



Expansion of oil palm in northeast India that encroaches on forest land to fulfill the goals of the Indian government under its National Mission on Edible Oils- oil palm (NMEO-OP) might lead to a lot of negative encounters with elephants in northeast India, warn experts.

- Goalpara is considered to be one of the worst affected districts for human-elephant conflict in Assam.
- Apart from being a hotspot for human-elephant conflicts, Goalpara is also a pioneer in oil palm cultivation in Assam.
- The primary oil palm plantation in the state was set up in Khungkhrājani village, around six kilometer from Dudhnoi city, back in 2015.
- Over the years, several monoculture plantations, together with rubber, banana, tea, and edible seed, have sprung up in Goalpara.

- According to the recent India State of Forest Report (ISFR), 2021, Goalpara has only 22.18% of its geographical area under forest cover, which is one of the lowest in the state.
- Also, only 13.73 square km of the district falls under the Very Dense Forest (tree canopy of 70% or more) category.
- The Assam government has plans to start out oil palm cultivation in seventeen districts, together with heavily forested ones like KarbiAnglong and Dima Hasao.

Topic 26. INDUSTRIAL DISEASES

Importance for Prelims: Science & Tech

Dying a slow however sure death because of silicosis, the mine employees of Rajasthan have been fighting for a welfare board since 2018.

- The Rajasthan government had come up with a policy in October 2019 to bail out silicosis-affected workers and prevention of the disease.
- As per this policy, there's a provision of immediate financial aid financial aid lakh to a silicosis patient and ₹2 lakh to the dependents just in case of his death, aside from ₹1,500 monthly pension to the widow of the victim.
- But figures show that hardly 10 percent of the victims have received this aid.
- As per an estimate, 27,463 employees are recognised as silicosis patients, additionally to 21,000 cases pending medical diagnosis.
- **Occupational Diseases:** an occupational disease is any chronic ailment that occurs as a results of work or occupational activity.
- The first such disease to be recognised as, squamous-cell carcinoma of the scrotum, was known in chimney sweep boys by Sir Percival Pott in 1775.
- Occupational hazards that are of a traumatic nature (such as falls by roofers) are not considered to be occupational diseases.
- Occupational disease continues to be a leading cause of illness and death to workers in the mining industry.
- Some examples of occupational disease in mining include: The asbestosis, mesothelioma silicosis cancers lung (gold mining, coke oven) nasal (nickel) gastro-intestinal chronic obstructive lung disease (sulfur dioxide) emphysema skin diseases hearing loss (noise) Some examples of exposure that can lead to occupational disease in mining include: blasting gases: carbon dioxide, carbon monoxide, oxides of nitrogen, ammonia,

and sulfur dioxide diesel emissions: elemental/organic carbon, carbon monoxide, nitrogen dioxide, sulfur dioxide drilling, mucking, rock breaking: silica, general dust refining: metals, sulfur dioxide, dust, chemical reagents welding fumes, from the heating and burning of metal surfaces

Topic 27. GENEVA CONVENTION

Importance for Prelims: IR



GENEVA CONVENTIONS: A COMMITMENT TO A COMMON HUMANITY

429

is the total number of articles in the 4 Geneva Conventions.

The Swiss city of Geneva shares its name with the Conventions and has become the global hub of humanitarian efforts.



The Swiss citizen Henry Dunant first came up with the idea of creating an international convention to protect victims of war.




With 196 state parties, the 4 Geneva Conventions have been universally ratified.

12 AUGUST 1949

adoption of the 4 Geneva Conventions which protect wounded, sick and shipwrecked members of the armed forces (I & II), prisoners of war (III) and civilians (IV).

MILLIONS

of lives have been saved in hundreds of armed conflicts in the last 7 decades thanks to the 4 Geneva Conventions.





The red cross is one of the distinctive emblems recognised by the First Geneva Convention and is formed by reversing the colours of the Swiss flag.



Geneva Conventions and the Russia-Ukraine war.

What are the Geneva Conventions guidelines during wartime?

- The Geneva Conventions are a set of four treaties, formalised in 1949, and three additional protocols, which codify widely accepted ethical and legal international standards for humanitarian treatment of those impacted by war.
- The focus of the Conventions is that the treatment of non-combatants and prisoners of war, and not the utilization of conventional or biological and chemical weapons, the utilization of which is governed respectively by the Hague Conventions and the Geneva Protocol.
- The First Geneva convention protects wounded and sick soldiers on land during war.
- The Second Geneva Convention protects wounded, sick and shipwrecked military personnel at sea during war.
- The Third Geneva Convention applies to prisoners of war, including a wide range of general protections such as humane treatment, maintenance

and equality across prisoners, conditions of captivity, questioning and the evacuation of prisoners, transit camps, food, clothing, medicines, hygiene and right to religious, intellectual, and physical activities of prisoners.

- The Fourth Geneva Convention protects civilians, including those in occupied territory.
- The other Geneva Conventions were concerned mainly with combatants rather than civilians.
- **Two Protocols of 1977:** Additional to the four 1949 Geneva Conventions were adopted in 1977.
- They strengthen the protection of victims of international (Protocol I) and non-international (Protocol II) armed conflicts and place limits on the way wars are fought.
- In 2005, a 3rd additional Protocol was adopted making an additional emblem, the Red Crystal, which has the same international status because the red cross and Red Crescent emblems.

Which countries are signatories?

- The Geneva Conventions have been ratified by 196 states, including all UN member states.
- The four conventions and first 2 protocols of the Geneva Conventions were ratified by the USSR, not Russia.

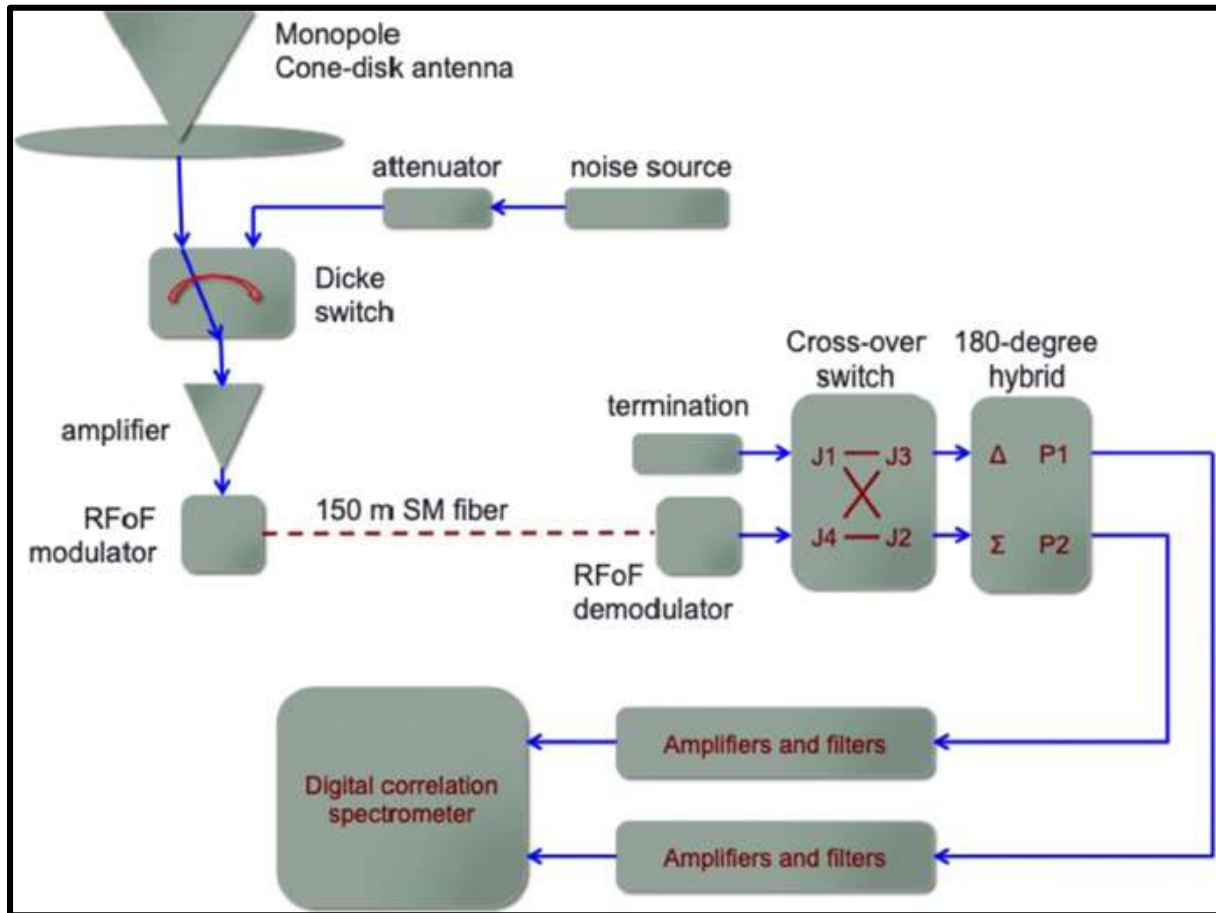
What would be the steps for potential prosecution under the Conventions?

- Under Article eight of the Rome Statute of the Interstate Commerce Commission, it's the Interstate Commerce Commission that has jurisdiction in respect of war crimes, in particular.
- Under the statute, 'war crimes' refers to Grave breaches of the Geneva Conventions including wilful killing, torture or inhuman treatment, including biological experiments; willfully causing great suffering, or serious injury to body or health; extensive destruction and appropriation

of property, not even by military necessity and the carried out unlawfully and wantonly; compelling a prisoner of war or other protected person to serve in the forces of a hostile Power; the willfully depriving a prisoner of war or the other protected person of the rights of fair and regular trial; unlawful deportation or transfer or unlawful confinement; taking of hostages.

Topic 28. SARAS-3 RADIO TELESCOPE

Importance for Prelims: Science & Tech



The RRI group made an updated version of SARAS, called SARAS-3 to detect radio wave signal from Cosmic Dawn.

- **Background:** In 2018 a team of researchers from Arizona State University (ASU) and Massachusetts Institute of Technology in the United States of America detected a signal from stars emerging in the early universe using information from the EDGES radio telescope.
- ASU/MIT team had claimed the discovery of a radio wave signalling the birth of the First Stars.
- But Utilizing the indigenously invented and built SARAS three radio telescope, researchers from Raman research Institute, an autonomous institute of the Department of Science & Technology, Govt.

- SARAS-3 radio telescope: SARAS is a niche high-risk high-gain experimental effort of RRI initiated and led by Prof. Ravi Subrahmanyam, along with Prof. N. Udaya Shankar.
- SARAS could be a correlation spectrometer designed for precision measurements of the cosmic radio background and faint features in the sky spectrum at long wavelengths.
- It absolutely was built to deploy in India a precision radio telescope to detect extremely faint radio emission signals from the depths of time, from our “Cosmic Dawn” when the first stars and galaxies shaped in the early Universe.
- SARAS-3 is the first telescope worldwide to reach the required sensitivity and cross-verify the claim of the signal detection.
- Detecting a faint signal from such an early period of the Universe is extremely difficult.
- The celestial signal is exceptionally faint – buried in sky radio waves that come to United States of America from the gas in our own Galaxy, the Milky Way, that are a million times brighter.
- Besides, this cosmic signal is in a radio wavelength band utilized by numerous terrestrial communications equipment and television and FM radio stations, that makes detecting the extra-terrestrial signal extremely tough.
- However, RRI scientists and engineers have up to the challenge and designed and calibrated the SARAS radio telescope to discern signals from Cosmic Dawn.
- The telescope was first deployed in rural Timbaktu Collective in Anantapur district in Andhra Pradesh.
- The subsequent deployment took place in trans-Himalayan Ladakh and additional RRI astronomers came up with the idea of floating the radio

telescope on a raft on water, which had never been conceived of in the world.

- This helped provide a homogenous medium of high dielectric constant below the antenna improving sensitivity and reducing confusing radio waves emitted by the very ground beneath radio telescopes.
- In 2020, the radio telescope was deployed in the lakes in Northern Karnataka, on Dandiganahalli Lake and Sharavati backwaters.
- After a rigorous statistical analysis SARAS three did not find any proof of the signal claimed by the edges experiment.
- The presence of the signal is decisively rejected after a careful assessment of the measurement uncertainties.

Topic 29. EPFO

Importance for Prelims: Economy



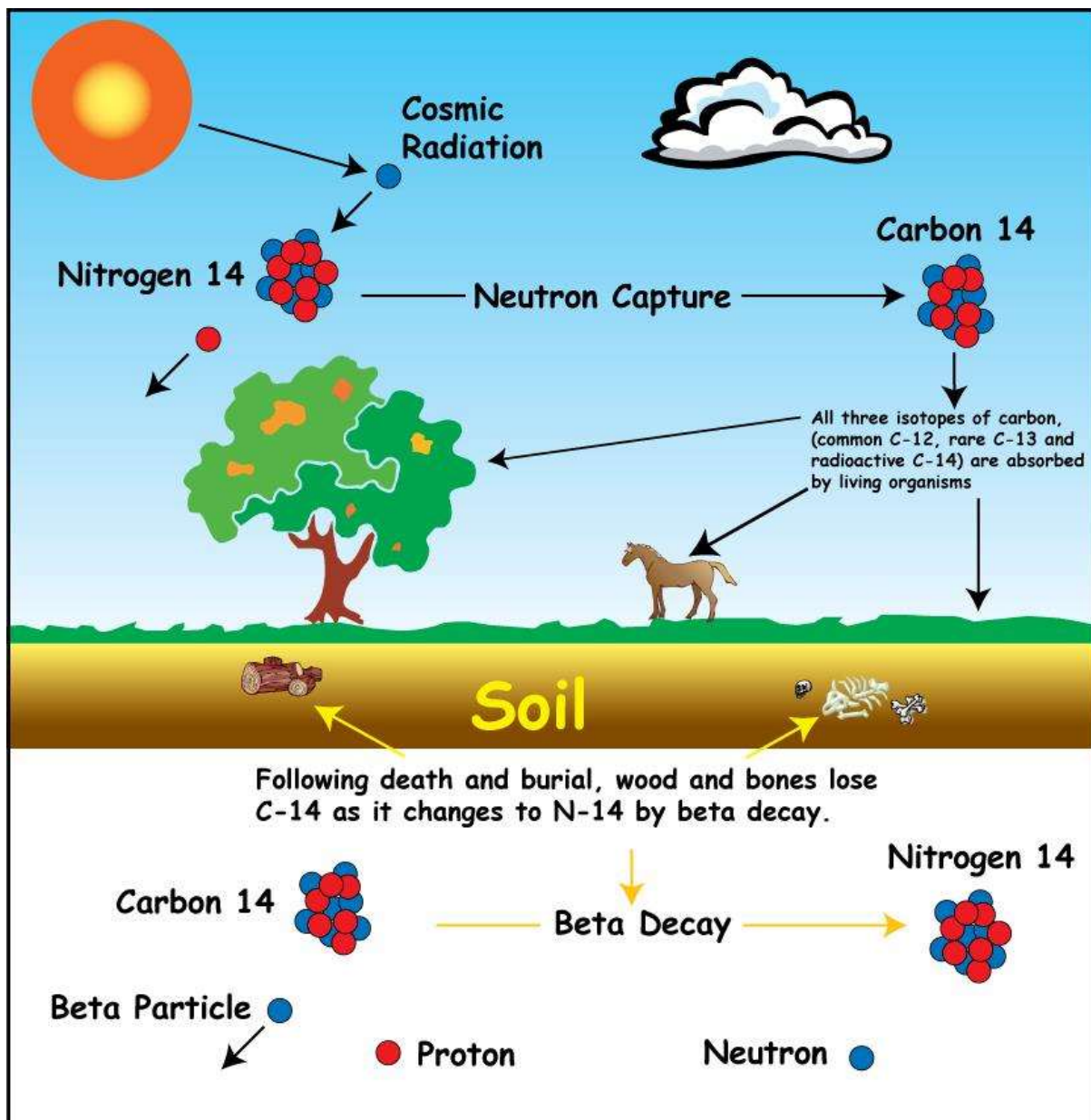
The cut in the EPF rate, at a time when inflation is resurging, attracted criticism from the central trade union representatives on the Board who drawn up the 8.5% rate credited to members' accounts in the past two years.

- The cut in the EPF rate, at a time when inflation is resurging, attracted criticism from the central trade union representatives on the Board who called for the 8.5% return to be retained.
- Employee representatives had also opposed the last rate cut on EPF savings from 8.65% in 2018-19 to 8.5% in 2019-20.
- **About EPFO:** Employees' Provident Fund Organisation is a government organization that manages provident fund and pension accounts of member staff and implements the Employees' Provident Fund and Miscellaneous Provisions Act, 1952.

- It is administered by the Ministry of Labour & Employment, Government of India.
- it's one of the World's largest social security Organisations in terms of the clientele and the volume of financial transactions undertaken.
- It operates 3 schemes – EPF scheme 1952, Pension scheme 1995 (EPS) and Insurance scheme 1976 (EDLI).
- **Employees Pension Scheme (EPS):** It is a social security scheme that was launched in 1995.
- The scheme, provided by EPFO, makes provisions for pensions for the workers in the organized sector after the retirement at the age of fifty eight years.
- Employees who are members of EPF automatically become members of EPS.
- Both employer and employee contribute 12% of employee's monthly salary (basic wages plus dearness allowance) to the Employees' Provident Fund (EPF) scheme.
- EPF scheme is mandatory for workers who draw a basic wage of Rs. 15,000 per month.

Topic 30. RADIOCARBON DATING

Importance for Prelims: Science & Tech



Radiocarbon dating has unmasked 2 forged paintings in France. The paintings were supposedly impressionist and pointillist works from around the early twentieth century. Heritage scientists clipped tiny threads from canvases and plucked what appeared to be a paintbrush bristle trapped in the paint — all were dated to within the past seventy years.

- About Radiocarbon Dating: Radiocarbon dating (also referred to as

carbon dating or carbon-14 dating) is a method that provides objective age estimates for carbon-based materials (Organic materials) that originated from living organisms.

- An age could be estimated by measuring the amount of carbon-14 present in the sample and comparing this against an internationally used reference standard.
- The method was developed in the late 1940s at the University of Chicago by Willard Libby.
- Basic Principles of Carbon Dating: radiocarbon (carbon 14) is an isotope of the part carbon that is unstable and weakly radioactive.
- The stable isotopes are carbon 12 and carbon 13. Carbon 14 is continually being formed in the upper atmosphere by the effect of cosmic ray neutrons on nitrogen 14 atoms.
- The stable isotopes are carbon twelve and carbon thirteen. it's apace oxidized in air to form CO₂ and enters the worldwide carbon cycle.
- Plants and animals assimilate carbon 14 from carbon dioxide throughout their lifetimes.
- After they die, they stop exchanging carbon with the biosphere and their carbon 14 content then starts to decrease at a rate determined by the law of radioactive decay.
- Radiocarbon dating is essentially a method designed to measure residual radioactivity.
- how does carbon dating Work: Carbon-14 may be a weakly radioactive isotope of Carbon; also known as radiocarbon, it's an isotopic chronometer.
- C-14 dating is only applicable to organic and some inorganic materials (not applicable to metals).
- Gas proportional counting, liquid scintillation counting and accelerator

mass spectrometry are the three principal radiocarbon dating methods.

Topic 31. MISSILE TECHNOLOGY CONTROL REGIME

Importance for Prelims: Science & Tech



The accidental firing of a missile by India into Pakistan could have led to serious, unintended escalation of tensions between the two nuclear armed countries.

- Pakistan has alleged that the incident “indicates several loopholes and technical lapses of a serious nature in Indian handling of strategic weapons” demanding a joint probe.
- it's also sought the involvement of the international community to promote “strategic stability in the region”.
- The description by Pakistan — that the missile was travelling at three

times the speed of sound, at 40,000 feet, and is a surface-to-surface missile — has led to speculation that the accident involves the BrahMos supersonic cruise missile which is now in the inventory of India's three Services.

- India became a member of the Missile Technology Control Regime in 2016.
- India is developing more missile systems, including a hypersonic variant.
- The handling and therefore the launch of any such missiles are extremely regulated with checks and balances to avoid accidents.
- **About MTCR:** Missile Technology Control Regime is an informal and voluntary partnership among 35 countries to prevent the proliferation of missile and unmanned aerial vehicle technology capable of carrying greater than 500 kg payload for more than 300 km.
- The members are thus prohibited from supplying such missiles and UAV systems that are controlled by the MTCR to non-members.
- it was established in Apr 1987 by G-7 countries – USA, UK, France, Germany, Canada, Italy, and Japan. In 1992, the main focus of the regime extended to on the proliferation of missiles for the delivery of every kind of weapons of mass destruction (WMD), i.e., nuclear, chemical and biological weapons.
- It is not a legally-binding treaty.
- The efforts of non-proliferation of ballistic missile systems had more been strengthened by “The International Code of Conduct against ballistic missile Proliferation”, also referred to as the hague Code of Conduct (HCOC), which was established on 25 November 2002 as an arrangement to prevent the proliferation of ballistic missiles with 136 UN member countries including India. India was inducted into the Missile Technology Control Regime in 2016 as the 35th member.

- **Multilateral Export Control Regimes:** MECR are voluntary and non-binding agreements created by the most important supplier countries that have agreed to co-operate in their effort to prevent and regulate the transfer of the certain military and dual use technology.
- It aims at preventing the proliferation of Weapons of Mass Destruction (WMD).
- They're independent of the UN.
- Their regulations apply only to members and it is not obligatory for a country to join.
- India is now a member of three of the four MECRs, except the Nuclear supplier Group.
- There are currently four such regimes under MECR The Nuclear Suppliers Group (NSG), for the control of nuclear related technology.
- The Australia Group (AG) for control of chemical and biological technology that could be weaponized.
- The Missile Technology Control Regime (MTCR) for the control of rockets and other aerial vehicles capable of delivering weapons of mass destruction.
- The Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies.

Topic 32. GREAT ANDAMANES TRIBES

Importance for Prelims: Geography

Anvita Abbi's book 'Voices from the Lost Horizon' encapsulates the worldview of the great Andamanese tribe through its stories and songs, capturing a culture that's currently extinct.

- **About Tribes of Andaman Islands:** The Andamanese are the various indigenous peoples of the Andaman Islands, part of India's Andaman and Nicobar Islands union territory in the southeastern part of the Bay of Bengal in Southeast Asia.
- The Andamanese peoples are among the various groups considered Negrito, owing to their dark skin and diminutive stature.
- The Andamanese peoples included the Great Andamanese and Jarawas of the Great Andaman archipelago the Jangil of Rutland Island, the Onge of Little Andaman, the Sentinelese of North Sentinel Island.
- These tribes are the result of the first human migration out of Africa 70,000 years ago.
- Today, only roughly 400–450 Andamanese stay, with the Jangil being extinct.
- Only the Jarawa and the Sentinelese maintain a steadfast independence, refusing most attempts at contact by outsiders.
- The Andamanese are a designated scheduled Tribe in India's constitution.

Topic 33. SEMICONDUCTOR AND NEON SHORTAGE

Importance for Prelims: Science

Semiconductors are materials which have a conductivity between conductors and insulators. They can be pure elements, silicon or germanium or compounds; gallium, arsenide or cadmium selenide.

- They are also referred to as integrated circuits or more commonly just chips, they will be the tiniest yet most exacting product ever factory-made on a world scale.
- It's an electrical circuit with many elements like transistors and wiring formed on a semiconductor wafer.
- An electronic device comprising varied of those elements is called integrated circuit (IC).
- They are used to power a wide range of devices – cars, laptops, smartphones, household appliances and gaming consoles.
- Although they are tiny, they perform a host of functions such as powering displays and transferring data.
- Semiconductor manufacturing is led by Taiwan Semiconductor Manufacturing Company (TSMC) in Taiwan and Samsung Electronics in South Korea. Recently, American chipmaker Intel has also planned to build two new chip factories in Chandler, Arizona. Basic Requirements for manufacturing semiconductor chips Fabricating semiconductor chips is a task of precision.
- It needs more than 3 months and involves big factories, dust-free rooms, multi-million-dollar machines, for manufacturing.
- Raw materials 99% pure Neon Gas is used in a process called photolithography, which is the most common method for fabricating integrated circuits.
- Palladium is used to coat electrodes that facilitate management flow of

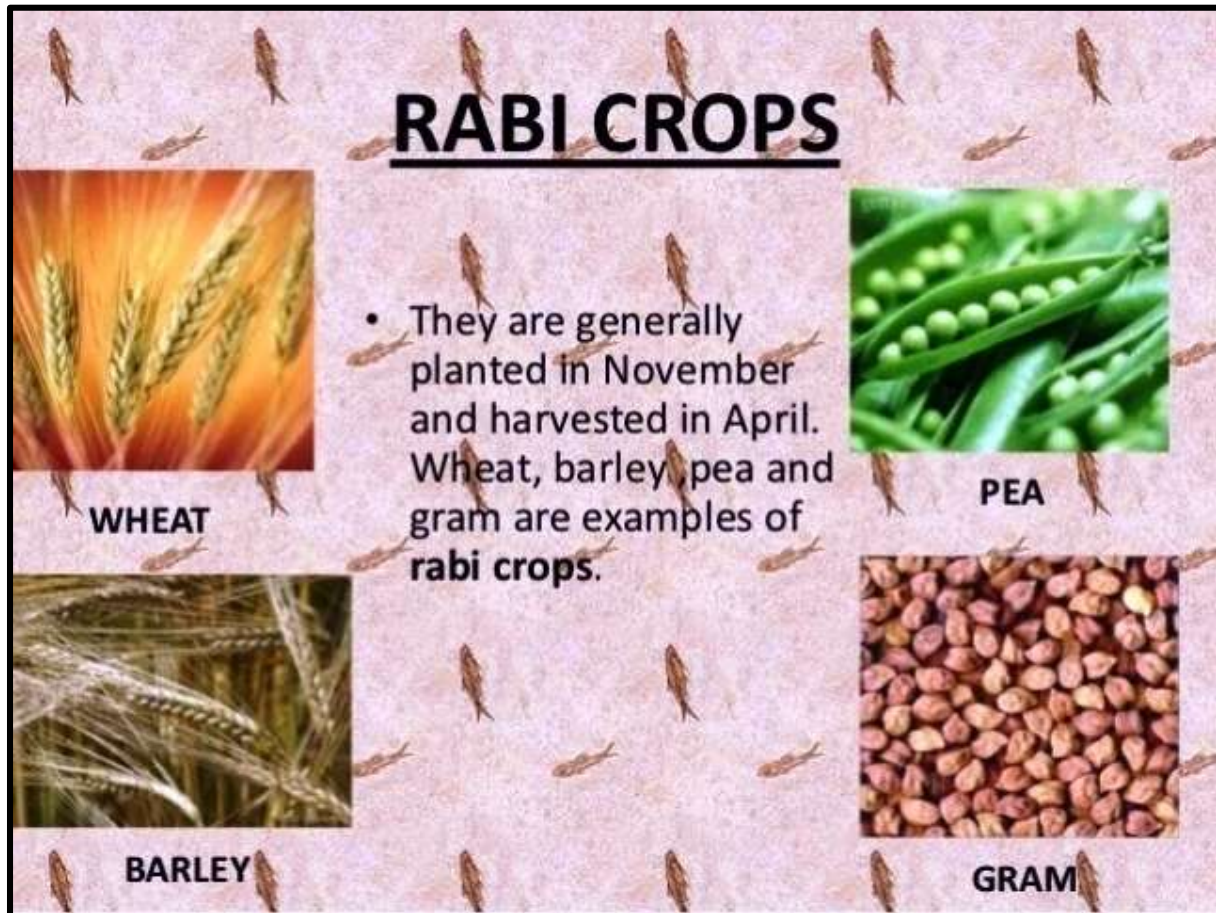
- electricity and inplating of microprocessors and printed circuit boards.
- Molten tin and lasers Huge working capital- Plants cost billions of dollars to build and equip, and they have to run flat-out to recoup the investment.
 - Huge infrastructure with the uninterrupted and stable power provide.
 - A clean environment, ie, low air particulate matter, abundant supply of clean.
 - fresh water etc Quick access to an international airport or seaport.
 - Close proximity is to well-trained technical human capital.
 - Causes of shortage The tech war between the U.S. and China and the sanctions exacerbated the shortage of advanced chips in China and resultant stockpiling.
 - Pandemic and lockdowns across the worldforced shut chip-making facilities in countries including Japan, South Korea ,China and the US. increased the growth in sales of laptops, tablets and mobile phones to the highest in a decade, as everything from school to office became online due to lock down and shift to work from home.
 - Disasters-Production plants in the United States were suffering from the cold and in Japan by wildfire.
 - Expensive and long method of manufacturing-Fabricating advanced logic chips requires extraordinary precision, along with huge long-run bets in a very field subject to rapid change.
 - False Forecasts by the automakers by underestimating the rebound in the automobile manufacturing, unlike the small and tiny chips utilized in smartphones or laptops.
 - Cascading effect-Its shortage causes cascading effects, given that the first one creates pent-up demand that becomes the cause for the follow-up famine.
 - Ukraine war-Russia supplies over 40% of the world's supply of

palladium and Ukraine produces 70% of the global supply of neon.

- Impact Supply chain disruption as being the building block of various commodities and followed cost push inflation Chip shortages are expected to wipe out USD 210 billion of sales for the carmakers this year, with production of 7.7 million vehicles lost.
- Directly affect shopper demand and related giant scale unemployment.
- India's Semiconductor Demand and Related Initiatives India currently imports all chips and the market is estimated to touch \$100 billion by 2025 from \$24 billion now.

Topic 34. RABI CROPS

Importance for Prelims: Agriculture



Russian invasion of Ukraine is happening when Indian farmers seem set to harvest a bumper Rabi (winter-spring) crop. Their prices have all firmed up, due to the war induced disruption of grain trade via the Black Sea and Russian banks being blocked from the international payments system.

- **About Winter Crops:** Rabi Crops are sown in winter and harvested in spring.
- The crops are grown either with rainwater that has percolated into the ground or using irrigation.
- A good rain in winter spoils the Rabi crops but is good for Kharif crops.
- **Kharif vs Rabi Crops:** Kharif Crops Rabi Crops Crops that are sown during the southwest monsoon season are called kharif or monsoon crops.

- Those that are sown around the Retreating Monsoon and Northeast monsoon season, which begins by October, are called rabi or winter crops.
- These crops are sown at the beginning of the season around end May to early June and are harvested post the monsoon rains beginning October.
- These are sown during October November and the harvest for these crops happens typically during April and May, during the summer season.
- It needs sufficient water and hot weather to grow.
- A heat climate is needed for seed germination and cold climate for the growth of crops.
- Key Kharif Crops include Rice, maize, pulses such as urad, moong dal and millets etc.
- Major Rabi crops are wheat, gram, peas, barley etc.

Topic 35. STATE LEGAL SERVICE AUTHORITY

Importance for Prelims: Polity

The Supreme Court expressed concern over fake claims for getting ex-gratia compensation of ₹50,000, meant for the family members of those who lost lives due to Covid, saying it had never visualised that this could be misused.

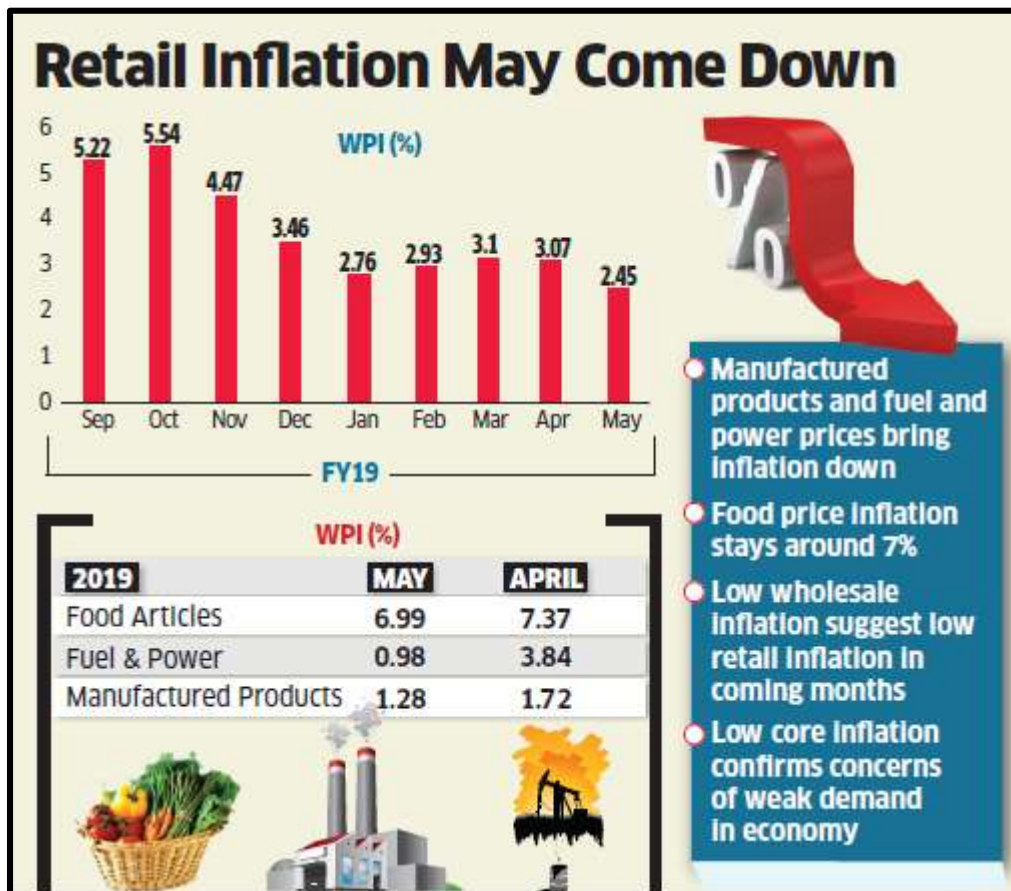
- The top court had been earlier directed all the States governments and Union Territories to appoint a dedicated nodal officer to coordinate with the member secretary of the State Legal Service Authority (SLSA) to facilitate payment of ex-gratia compensation to the members of the family of Covid victims.
- State Legal Services Authority: It is headed by the Chief Justice of the State High Court who is its Patron-in-Chief.
- A serving or retired Judge of the High Court is nominated as its Executive Chairman.
- Legal Services Institutions for providing Free Legal Aid: **National Level** : National Legal Services Authority State Level : State Legal Services Authority.
- **District Level** : District Legal Services Authority.
- The District Judge of the District is its ex-officio Chairman.
- **Taluka/ Sub-Division Level** : Taluka/ Sub-Divisional Legal Services Committee headed by a senior Civil Judge.
- **Supreme Court:** Supreme Court Legal Services Committee High Court : High Court Legal Services Committee National Legal Services Authority: The National Legal Services Authority (NALSA) was constituted under the Legal Services Authorities Act, 1987 in the 1995 for providing free and the competent legal services to the weaker sections of the society.
- The chief justice of India is that the Patron-in-Chief and therefore the second senior most judge of Supreme Court of India is the govt Chairman

of the Authority.

- Article thirty-nine A of the Constitution provides for free legal aid to the poor and weaker sections of the society, to promote justice on the basis of equal opportunity.
- Article 14 and Article 22 (1) ensures equality before law.

Topic 36. INFLATION-WHOLESALE PRICE INDEX

Importance for Prelims: Economy



The retail inflation hit an eight-month high to 6.7% and WPI over 13% in February.

- Inflation is defined as a scenario wherever there's sustained, unchecked increase in the general price level and a fall in the purchasing power of cash.
- Thus, inflation is a condition of price rise.
- Causes of Inflation There can be two sets of factors that can cause inflation in an economy.
- **They are:** Demand Pull and Cost Push. Demand Pull Factors Rise in population.
- **Black money.** Rise in income. Excessive government expenditure.
- Cost Push Factors Infrastructure bottlenecks which lead to rise in

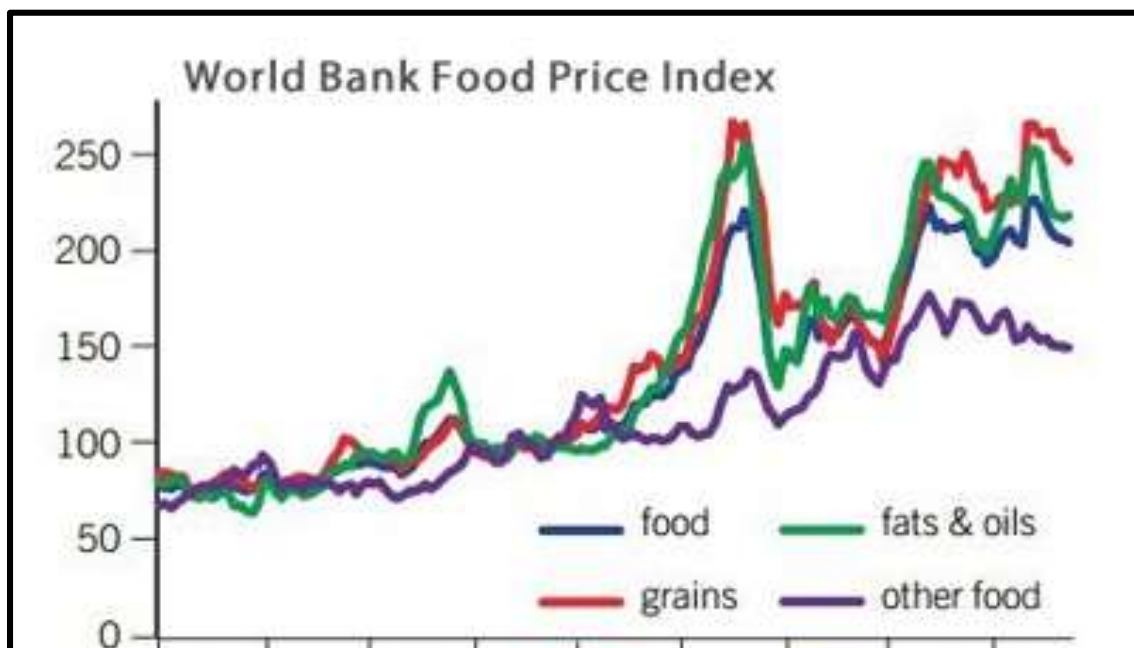
production and distribution costs. Rise in Minimum Support Price (MSP).

- Rise in international prices.
- Hoarding and black marketing.
- Rise in indirect taxes.
- Measures of Inflation Consumer Price Index/Retail Inflation– It measures price changes from the perspective of a retail buyer.
- It is released by the National Statistical Office (NSO).
- The CPI calculates the difference in the price of commodities and services such as food, medical aid, education, electronics etc, which Indian shoppers purchase to be used.
- The CPI has several sub-groups including food and beverages, fuel and light, housing and clothing, bedding and footwear.
- Four types of CPI are as follows: CPI for Industrial Workers (IW). CPI for Agricultural Labourer (AL).
- CPI for Rural Labourer (RL). CPI (Rural/Urban/Combined).
- Of these, the first three are compiled by the Labour Bureau in the Ministry of Labour and Employment.
- Fourth is compiled by the National statistical office (NSO) in the Ministry of the Statistics and Programme Implementation.
- Base Year for CPI is 2012.
- The Monetary Policy Committee (MPC) uses CPI data to control inflation.
- Thus, it is also called headline inflation Wholesale Price Index– It measures the changes in the prices of goods sold and traded in bulk by wholesale businesses to other businesses.
- Published by the Office of Economic Adviser, Ministry of Commerce and Industry.

- It is the most widely used inflation indicator in India and measures inflation at wholesale level.
- The base year of All-India WPI has been revised from 2004-05 to 2011-12 in 2017.
- The index basket of the WPI covers commodities falling under the three major groups namely Primary Articles, Fuel and Power and Manufactured products.
- (The index basket of the current 2011-12 series has a total of 697 items as well as 117 items for Primary Articles, sixteen items for Fuel & Power and 564 items for Manufactured Products.)

Topic 37. FOOD CRISIS & INDEXES

Importance for Prelims: Agriculture



Russia-Ukraine war can spark a food crisis.

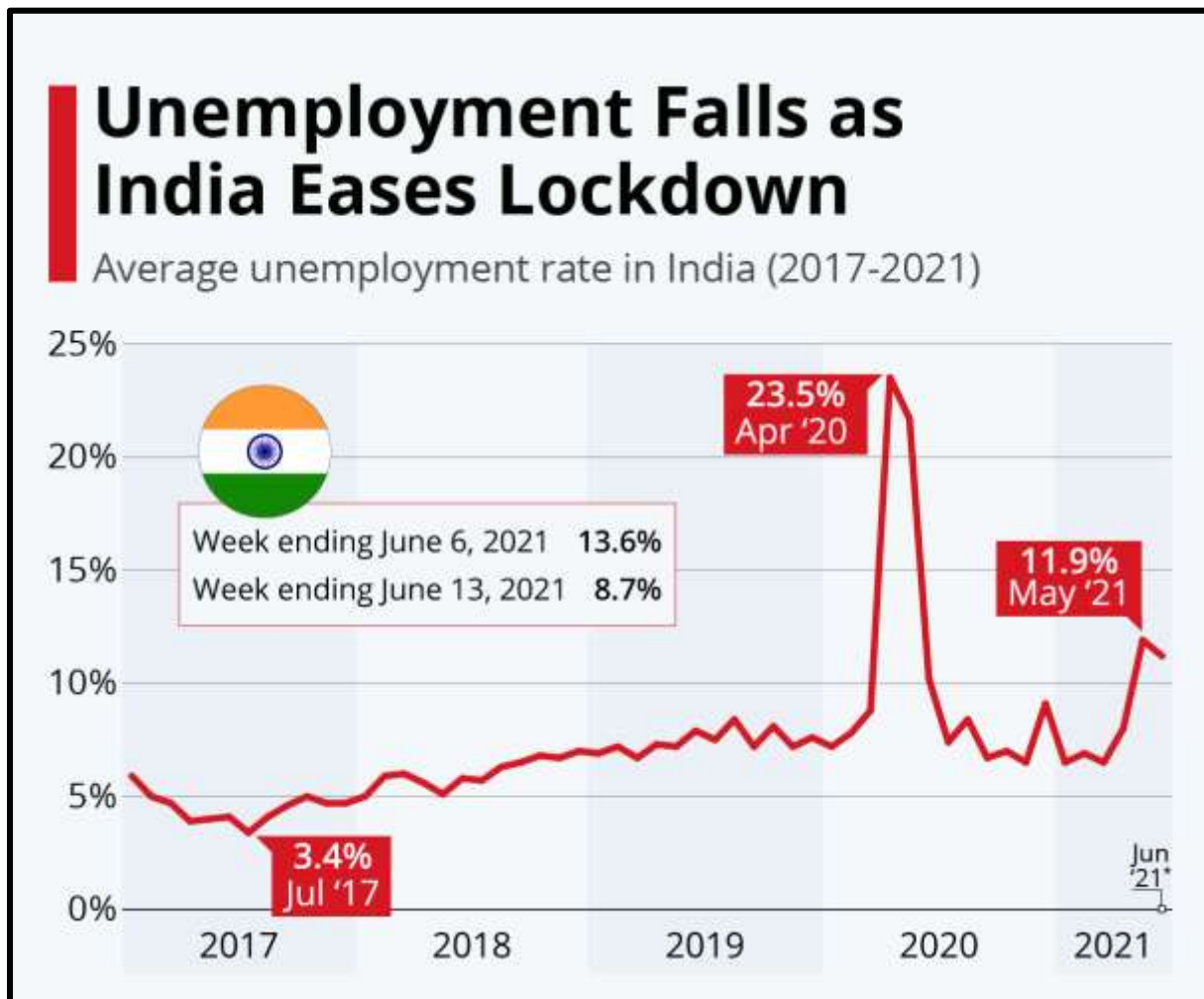
- Food Crisis facts: Russia and Ukraine are important players in the global trade of grains and oilseeds among other agricultural commodities.
- The armed conflict between the two countries has raised concerns over food security for the Middle East and Africa.
- The crisis would spur food inflation and also the poor harvest because of dry spells in South America and Indonesia and rising demand for wheat and oilseeds in China and India can worsen the situation.
- In 2020, African countries imported \$4 billion worth agriculture produce from Russia.
- Ninety per cent of imports consisted of wheat and six per cent sunflower oil.
- Equally, Ukraine exported about \$2.9 billion of agricultural commodities to African countries in 2019-20 of which About 48 per cent of imports included wheat, 31 per cent maize, and the balance sunflower

oil, barley, and soybeans.

- Russia accounts for about ten per cent of worldwide wheat production whereas Ukraine has a four per cent share.
- Russia and Ukraine contribute about a quarter of the world wheat exports.
- Russia and Ukraine are important players in corn production and had a fourteen per cent share of worldwide maize exports in 2020.
- Also, these two countries lead in sunflower oil production and have a 40 per cent share in exports.
- China is the largest producer of wheat in the world.
- **Indices by FAO: Food Price Index:** The FAO Food Price Index (FFPI) is a measure of the monthly change in international prices of a basket of food commodities.
- It consists of the average of 5 commodity group price indices weighted by the average export shares of each of the groups over the 2014-2016.
- FAO Vegetable Oil Price Index FAO Cereal Price Index FAO Dairy Price Index FAO Meat Price Index FAO Sugar Price Index

Topic 38. UNEMPLOYMENT RATE

Importance for Prelims: Economy



The unemployment rate among the labour force between 15 and 29 years is 25.5.

- In the last quarter it was 22.9 and in the corresponding quarter of 2020 it was 34.7.
- The unemployment rate among women in this age group is 31 and among men it is 24.
- The unemployment rate among all ages during the period is 12.7.
- The rate among women in all ages is 14.3 and men in all ages is 12.2.
- The highest urban unemployment rate for persons of all ages is in Kerala

at 24.4, followed by Chhattisgarh (19.2).

- Gujarat has all-time low (5.5), followed by Delhi (7.9).
- The urban unemployment rate is the 12.6 percent, 3 per cent on top of its previous quarter.
- Throughout the same period, the GSDP at constant worth fell over twenty per cent – denotes even a short run fall in the economic growth contributes to rise in the unemployment.
- Labour Force Participation Rate (LFPR), is 37.1.
- In the last quarter it was the 37.5 and in the corresponding quarter of 2020, the number was 35.9.
- The Worker Population Ratio (WPR), was 32.4 and in the previous quarter it was 34.0; in the corresponding quarter of 2020 it was 28.4.
- Periodic Labour Force Survey It is India's 1st computer-based survey launched by the NSO in 2017.
- It essentially maps the state of employment in the country.
- In doing so, it collects data on several variables such as the level of unemployment, the types of employment and their respective shares, the wages earned from different types of jobs, the number of hours worked etc.
- Before PLFS, the National Sample Survey Office (NSSO)- previous name of NSO used to bring the data related to employment and unemployment based on its quinquennial (every 5 year) household socio-economic survey programme.
- The reports are released on a quarterly furthermore as annual basis.
- The quarterly reports cover only urban areas whereas the annual report covers both urban and rural areas.
- It estimates the key employment and unemployment indicators (viz. WPR, LFPR, UR) in the short time interval of three months for the urban

areas only in the Current Weekly Status (CWS).

- To estimate employment and unemployment indicators in both usual status and CWS in both rural and urban areas annually.
- Various indicators Labour Force Participation Rate (LFPR)-the percentage of persons in labour force (working or seeking or available for work) in the population of all age Unemployment rate -refers to the percentage of unemployed persons in the labour force.
- Labour force includes persons who are either employed or unemployed but seeking work.
- Worker Population Ratio (WPR)-the percentage of employed persons in the population.
- **Activity Status Usual Status** The activity status determined on the basis of the reference period of the last one year preceding the date of survey, it's known as the usual activity status of the person.
- **Current Weekly Status (CWS):** The activity status determined on the basis of a reference period of the last seven days preceding the date of survey is known as the current weekly status (CWS) of the person).