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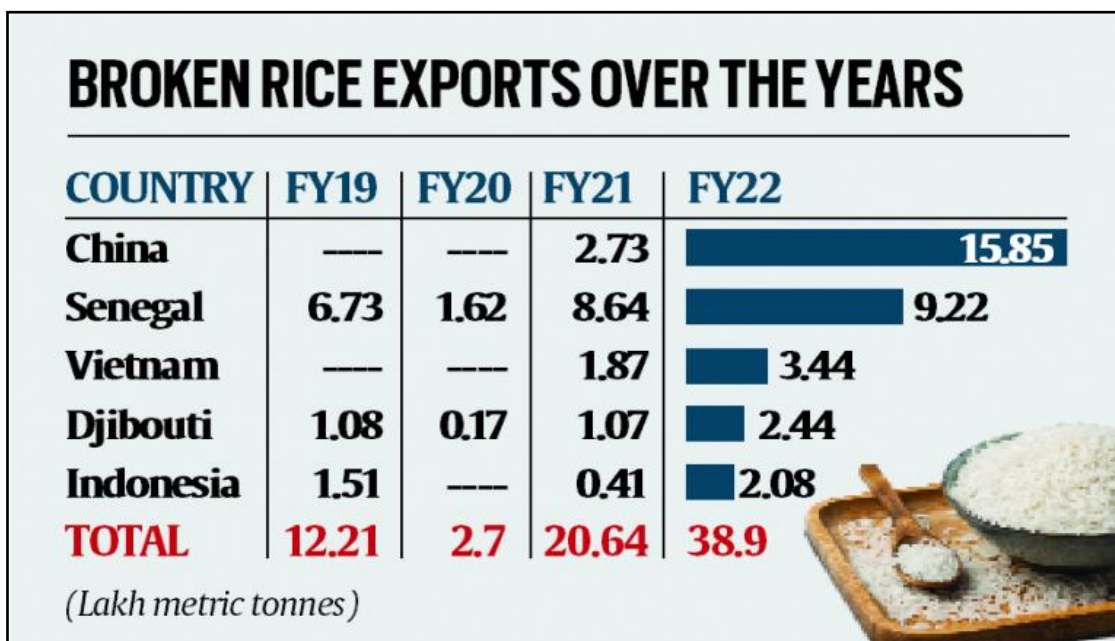
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Topic 1. BROKEN RICE EXPORT

Important for subject: Economy



The Indian government's restriction on the export that contain broken rice could end the trade in broken rice that grew by 53 percent in the this year, according to according to the US Department of Agriculture (USDA).

- Broken rice exports made up about 20 percent (first second quarter in 2022) and 10 percent (2021) of overall rice exports.
- Rice trade is predicted to decrease in 2022, mainly because of the new Indian policy of preventing exports of broken rice.
- India was the main contributor to more than 50% of world's trade in broken rice.
- China, Vietnam and Senegal are the biggest importers of broken rice.
- Recently, India has banned exports of broken rice. It also has imposed a duty of 20% on the export of non-Basmati rice with the exception of parboiled rice, to increase the supply of domestic rice with a decline in the amount of land under the paddy harvest in this season of Kharif.
- There are four kinds of exports from rice. Of these, exports within the case of two types - basmati rice and nonbasmati parboiled rice - are allowed to be exported freely.
- The curbs are only available for the two other kinds varieties: raw (white) or broken, non-basmati.

What was the reason the Government ban the Export?

- Unusual increase in exports China was the largest purchaser (15.85 LMT) of Indian broken rice between 2021 and 2022.
- In the domestic market, there is a rise in Global Demand owing to the lower cost and decline of Domestic production due the fall in paddy fields. Production trends in rice and exports: India is the world's largest exporter of rice, which makes up more than 40 percent of all global rice exports and is in competition with Thailand, Vietnam, Pakistan as well as Myanmar on the global market.
- Non-basmati rice makes up the largest portion of the total of Indian Rice exports.
- China has emerged as the largest purchaser for Indian rice throughout the epidemic, with an import of 7.7 percent of India's total rice exports in the fiscal year 2021-22. all rice imported from India almost the entire 97 percent of which was rice that had been broken.
- India is the second largest rice consumer, is second only to China.
- China is known as the world's biggest rice producer, and also the largest importer.
- Broken and Parboiled Rice Paddy typically has 20-21 percent of husk (the inedible cover that covers the grains) and 10-11 percentage bran (the brown outer layer of the edible kernel).
- What remains after removing the bran and husk remains the white rice which comprises 68-69% of paddy.
- Parboiling is the process in which the paddy is immersed in water, then steamed and then dried, while keeping the husk that covers its exterior.
- The rice ends up becoming more brittle and less breakage during milling.
- The rice that is parboiled and exported from India is composed of 5 to 15 per cent broken grains.
- In rice that is raw broken grains, they can be at least 25 percent. This is rice with 100% broken pieces whose exports are banned.
- Broken rice are fragments of rice grains that are fractured in the field when drying, during transport, or even during milling. Broken rice is broken and not defective.
- It's as nutritious as the same amount of rice that is unbroken.

Importance of Broken Rice:

- Production of food for young animals, livestock and also for pets.

- It is especially suitable because of its high calorific value and the low fiber levels. Brewing industry where it is blended with barley for the making of Arak (aniseed an alcoholic drink, distillation and colourless drink).
- Raw ingredient for rice flour used in breakfast cereals, baby food and rice wine. It is also used in sake, rice liqueur and cans and packaged foods.

Topic 2. CLIMATE RISK DISCUSSION PAPER BY THE RESERVE BANK OF INDIA

Important for subject: Economy

The RBI's climate action paper contains suggestions that merit consideration.

- Discussion paper about the paper The paper identifies gaps in the way that climate change is considered a significant risk is handled by the banks of India.
- It meticulously clarifies the physical climate impact risks.
- It is the term used to describe the financial and economic losses that result from the growing intensity and frequency of extreme climate change-related weather phenomena like chronic physical risks and acute physical risk.
- Transition loss could affect the process of transitioning to reduce carbon emissions can be a major economic impact.
- It covers: Costs because of changes to climate-related policies and laws.
- Portfolios of investments or a the reduction in cash flow because of the advent of more advanced technologies.
- The mood and behaviour of customers' attitudes and moods.
- The paper provides broad guidance, examples and guidelines for entities that are regulated in the area of governance, disclosures strategy procedures, and the structure for risk management to deal with climate risks providing valuable information for the board members to consider.
- It puts more emphasis on the various financing opportunities.
- Foreign capital through sustainability-linked loans and bonds. Initiatives taken by the RBI to combat climate change in May of 2021 the RBI established the Sustainable Finance Group within its Department of Regulation It aims to work in conjunction with other national and international institutions regarding issues related the climate crisis.

- The Reserve Bank released on its website the findings of a Survey on Climate Risk and Sustainable Finance conducted in January 2022.
- The Sustainable Finance Group (SFG) conducted a study in January 2022, to determine the climate risk and sustainable finance in the top commercial banks that have scheduled operations.
- The survey included 12 banks of the public sector as well as the private sector, 16 banks as well as six foreign banks operating in India.
- It will provide valuable information and the results generated from this exercise will assist in the development of the supervisory and regulatory approach that the RBI to climate risk and sustainable financing.
- In a circular issued in March 2022 in 2022, the RBI examined the effects of the transition to green energy on fossil fuel-dependent industries.
- The recently published climate risk paper was released of the Reserve Bank of India (RBI) to help encourage the nation's financial sector to focus on green transition financing and to ensure long-term stability of the system by addressing the danger of climate-related challenges is a welcome development.
- Network for Greening the Financial System It is a network of supervisors and central banks who are willing to share their the best practices and aid in the improvement of the environment and risk-management for climate within the finance sector.
- It was established during the Paris One Planet Summit in December 2017. Its secretariat is managed by the Banque de France.
- It is also aiming to mobilize mainstream finance to help in the transition to an environmentally sustainable economy.

Topic 3. INVESTMENTS BOGGED DOWN BY RISING CAPITAL COST, EASING COMPETITIVE PRESSURE

Important for subject: Economy

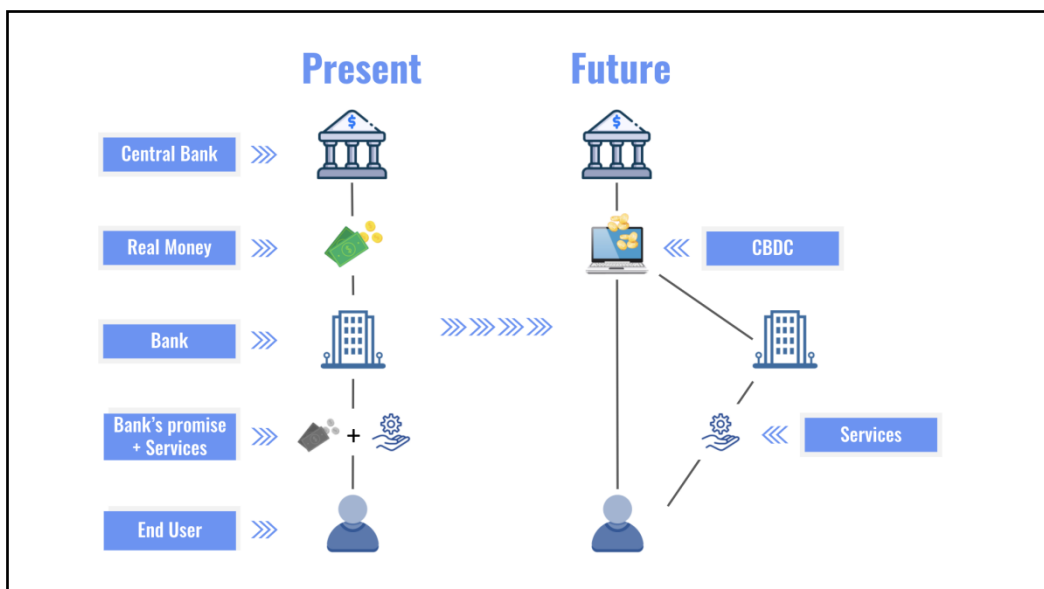
The value of private equity as well as venture capital investments fell to a 19-month low in August.

- PE/VC investments in India dropped 83 percent from year-to-year, up to \$2.2 billion (\$11 billion) in 83 transactions in the month of March, according to the IVCA-EY monthly roundup.

- It's down by 43 percent from \$4.1 billion investment in July.
- Venture capitalists as well as PE investors invested the sum of Rs5.5 lakh crore in the last fiscal year to create one of the biggest ecosystems for growth and start-ups.
- The committee will address problems of coordination between multiple departments and agencies, including those of the RBI, SEBI, Finance Ministry, DPIIT and Commerce Ministry.
- Venture Capital & Private Equity Private equity is the capital that is put into a company or any other entity that isn't trading or publicly listed.
- Venture capital is a type of financing that is provided to entrepreneurs or other young companies that have the potential for growth over the long term.

Topic 4. CENTRAL BANK DIGITAL CURRENCY (CBDC)

Important for subject: Economy



What's going on in the news?

- Digital currency of the Central Bank (CBDC) which is scheduled to be launched later this year, could turn into an effective tool to cut down the time and expense of trans-border transactions Reserve Bank Deputy Governor T Rabi Sankar.
- CBDC is perhaps the most effective tool to cut down time and expense for international transactions, by removing the risk of settlement.
- An Central Bank Digital Currency (CBDC) or digital currency of national significance is essentially the digital version of a nation's fiat currency.

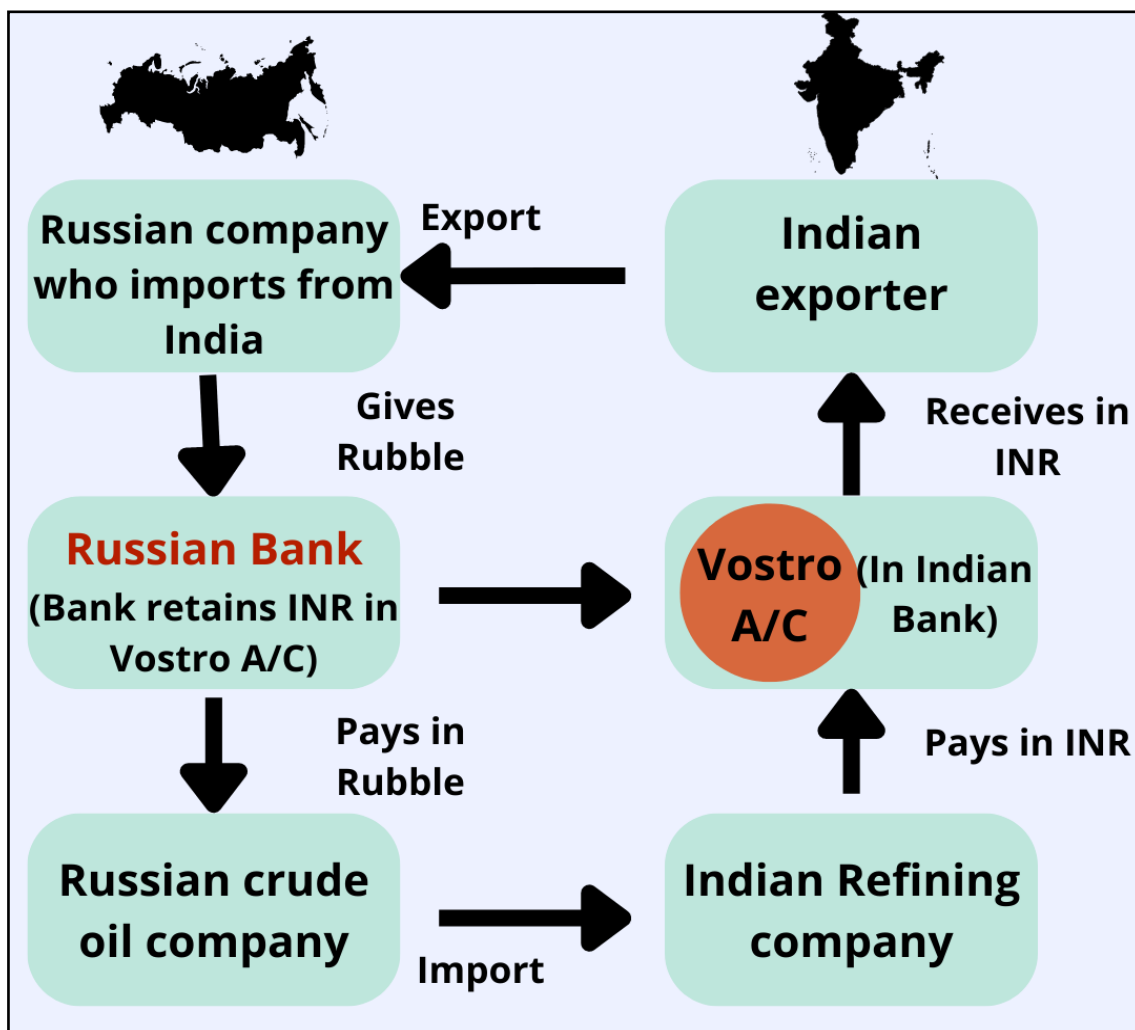
- Instead of printing paper currency , or minting coins Central banks issue electronic tokens. The token's value is secured by the complete trust as well as credit rating of the federal government.
- CBDC is legitimate tender that is issued by central banks in a digital format. It's akin to a fiat currency that is issued on paper, and can be exchanged with other fiat currencies.
- Merits Lower the cost of managing the currency.
- This could lower the rate of inflation, since the high currency to GDP ratio can be considered to be an inflationary (might decrease cash holdings with no need.
- Digital Rupee transactions will be instantaneous in comparison to the current experience of digital payments.
- Real-time payments are possible without bank settlement, thus cutting down on transaction costs and time.
- The price of printing, transportation and the storage of paper currency could be significantly decreased.
- Financial inclusion. More targeted selection of beneficiaries scheme cash-subsidy. Counter the rise of digital forms of private money.
- Digital currencies that are backed by the state provides protection for consumers and investors, and private investors can be confident in investing in the associated infrastructure, without doubt about its rules.
- More stable than other digital currencies that is regulated by the RBI Better transmission of monetary policy
- The central bank will be able keep record exactly where it is located for each dollar of the currency, thus reducing the risk of the financing of terror and the spread of counterfeiting.
- Reduce dependency on dollars to conduct international transactions. Digital literacy and smart phones penetration Exclusion of technology-related issues from welfare programs
- Cyber threat Collect fundamental information about an individual in order that the individual can prove that they are the holders of the digital currency. This raises privacy concerns. Technology issues: fundamental technology, verification mechanism and distribution structure.

- A sudden withdrawal of funds from a bank that is in financial distress is a different cause of worry. Get rid of the massive bank and financial institutions.
- CBDC Vs Cryptocurrency Base Cryptocurrency Central Bank Digital Currency Definition Digital cryptocurrency issued by an individual or company.
- Central digital currency issued by banks are digital tokens, which are similar to cryptocurrency, but issued by central banks.
- Legality It is not a fiat currency since it is not backed by the federal government.
- Central bank digital currency is the digital version of a country's fiat currency.
- Technology that is based on blockchain technology and cryptography i.e public ledgers require each user's consent to conduct transactions.
- Digital currencies issued by central banks are intended to be similar to cryptocurrencies, however, they might not require the use of blockchain technology or consensus mechanisms.
- Instinctual value Has no intrinsic value, however it is utilized for transactions because of its acceptability or scarcity, as well as anonymity.
- They are linked on the basis of the fiat currency of the country. Regulation Cryptocurrencies aren't regulated and are decentralized, which means they can be used for transactions that are anonymous.
- Since they are an e-currency that is centralized it is not possible to secure transactions, as some cryptocurrency do.
- The impact on monetary policy can complicate transmission of monetary policy since it is an unregulated parallel currency CBDCs encourage financial inclusion and ease the execution of fiscal and monetary policy.
- Value Cryptocurrencies can be extremely unstable, and their value changing. CBDCs that are backed by a central government and supervised by the central bank could provide consumers, households as well as companies with a reliable method to exchange digital currency.
- Validity their worth is determined by sentiments about investors as well as usage and curiosity.
- Legal backing of spending because software on computers can be used often.
- Fiat currency has the advantage that once used it can't be spent in the future, except for forgery as it's not anymore with the person who spent it.

- Note: Cross-border payments involve transactions between a payer and payee that are in different countries.
- These can be the result of individual payments with companies or banks.
- Currently, cross-border payments occur via channels like SWIFT, Rupee Drawing Arrangement (RDA) and Money Transfer Service Scheme (MTSS).

Topic 5. INTERNATIONAL TRADE IN RUPEE

Important for subject: Economy



What's the story?

- The Finance Ministry is scheduled to meet with key stakeholders, including banks as well as the Ministries of External Affairs and Commerce to discuss ways of promoting international trade using rupee instead of United States dollar.
- The goal is to encourage global trade growth with particular emphasis in exports coming from India and to help support the growing demand of the international

trading world in INR.

- It's also expected to aid in reducing the flow of dollars and slow down the decline in the value of rupees to the "very only a small degree".
- To complete business transactions in any country banks in India will create Vostro accounts for the banks that are correspondent to the country of partner for trading.
- Indian importers are able to pay for their imports using INR and deposit it into these accounts.
- These profits from imports can be used later as a payment to Indian exporters with INR.
- Present system: the imports and exports of the company are done in foreign currency with the exception of Nepal as well as Bhutan.
- For imports in the event of imports, the Indian company must pay in international currency. This is mostly dollars, but can also include euros, pounds or yen, for instance.
- The Indian company pays its employees in foreign currency when it is the case of exports. The company converts that foreign currency into rupee as it requires rupee to meet its needs most of the time.
- International trade settlement through rupee-Mechanism A mechanism for settling international trade in rupees: Reserve Bank of India (RBI) has set up an instrument to settle international trade rupees.
- The exchange rate between the countries' currencies countries that trade can be determined by the market.
- To settle trade transactions with any other country, AD (Authorised Dealer) banks in India can open special accounts in the rupee of banks that are correspondents of the partner trading nation.
- Indian importers undertaking imports should pay in INR. The amount will be credited to the account for vostro, which is the only one that is specifically set up by the bank that is the correspondent of the country that is the partner, against invoices for the supply of services or goods from the overseas supplier or seller.
- Indian exporters, who undertake exports of services and goods must be paid the proceeds from exports to the extent of INR by the remaining balances of the special account for vostro that is maintained by the bank correspondent of the country that is

the partner.

- Exporters can receive an advance payment against exports made by importers from abroad in Indian rupees using the rupee payment method provided due to payment obligations that result from previously executed export orders.
- Furthermore, advances are released only according to directions of importer and the advice of the correspondent bank prior to the release of the advance.
- Approval by the RBI-Banks of countries that are partners could be approached by one AD bank located in India for the opening of an exclusive INR Vostro account and the appropriate AD bank will request permission of the Reserve Bank with details of the agreement. Exclusion-Correspondent bank must not be from Financial Action Task Force -high risk and non-cooperative jurisdictions on which FATF has called for counter measures.
- Bank guarantees issued for trade transactions, made by the arrangement is permissible. important, subject to the requirements that are contained in FEMA notification.

Topic 6. UNEMPLOYMENT RATE LOWEST SINCE 2019; WORKFORCE PARTICIPATION LARGELY UNCHANGED

Important for subject: Economy

Unemployment According to the most recent Periodic Labour Force Survey quarterly bulletin issued from the Ministry of Statistics Planning and Implementation Urban unemployment across the country between April through June of 2022 stood at 7.6 percent, 0.6 per cent lower than in the final quarter of FY22.

- It was also less than pre-Covid times.
- In the quarter of October-December 2019 the rate of urban unemployment was 7.9 per cent. It later climbed to 9.1 percent and finally 20.9 percent at the initial phase of pandemic.
- According to government statistics that it has been declining since the month of July in 2021.
- Although the rate of unemployment for men is 5.7 percent while it's 9.5 percent for women.
- This is also in line with Centre for Monitoring Economics data that stated that the urban unemployment rate between June and April 2022 was 7.37 percent.

- Within the states in which unemployment rates are the highest within Rajasthan and Kerala which are 12.8 percent and 12.5 per cent , respectively.
- then followed by Uttarakhand and Odisha in which the urban unemployment rate is 11.5 percent for each.
- Participation of the labour force as of June 20, 2022 the urban India's participation rate in the labour force (LFPR) reached 37.2 percent.
- That means that of those of working age living in urban regions just 37.2 percent are part of the workforce.
- This figure has been stable since October 2021.
- But, it remained mostly the same throughout the epidemic too.
- For instance, from May and June of 2020 it was 35.9 percent. However, during the following quarter, it increased to 37 percent.
- A closer examination of the LFPR also reveals the stark gender gap. While 57.2 percent of urban males in the working age population are part of the workforce however, this figure is only 16.4 percent among women between April until June 2022.
- In urban India nearly half have salaried positions. In addition, 39.2 per cent of those employed are self-employed.
- In the case of employers, the percentage of employers dropped dramatically at the initial phase of the disease and then picked up.
- From 20.9 percent at the beginning of the fiscal year FY21 it increased to 32.9 percent at the beginning of the current fiscal year.

Topic 7. WHY SEVERAL ASIAN ECONOMIES BROUGHT IN AGRI EXPORT CURBS IN 2022

Important for subject- Economy

The governments across Asia have imposed export restrictions on a variety of energy and agricultural products to ensure adequate supplies and limit an increase in prices caused by the conflict between Russia and Ukraine however, these restrictions have disrupted trade across the globe.

- Top Thermal Coal Exporter 2022 - Indonesia,Australia,Russia India 2 largest importer after China
- Top Palm Oil Exporter - Indonesia,Malayasia,Netherlands India top importer of Palm-Oil

- Top Wheat Exporter in the US, Russia, Canada
- Top Sugar Exporter - Brazil, Thailand, India
- Top Poultry Meat Exporter - Brazil, US, EU
- Top Rice Exporter - India, Vietnam, Thailand

Topic 8. WHAT GOVT. CURBS ON EXPORTING RICE MEAN FOR INDIA AND THE WORLD

Important for subject: Economy

The Department of Revenue in the Ministry of Finance notified the application of a duty of 20% on the export of rice "other other than basmati and parboiled rice"

What are the limitations imposed?

- There are four kinds of exports of rice. From those, exports in the case of two types - basmati rice and parboiled nonbasmati rice - are allowed to be exported in a free manner.
- The curbs only apply to two other types of rice varieties: uncooked (white) as well as broken basmati rice.
- The Directorate General of Foreign Trade within the Ministry of Commerce and Industry issued a blanket ban to damaged rice exports.

Why were these restrictions set?

- The likelihood that India's rice production is declining substantially due to inadequate monsoon rain. Farmers are planting 2.1 million acres (mh) less of rice than in the same time in the year before.
- In Punjab and Haryana are lower as a result of a virus that is causing "dwarfing" on paddy plantations. Public wheat stocks on the 1st of August, at 26.65 mt was the lowest level in 14 years, whereas the same thing happened to rice, which stood at 40.99 meters, was at ease.
- The government is concerned about their loss due to a poor harvest of kharif.
- Political pressure for the continuation of the free-foodgrains program (Pradhan Mantri Garib Kalyan Anna Yojana) beyond September.

What is the role of India in the trade of Wheat and Rice?

- The country is home to 40% of the world's rice exports, and had 21 million tons of rice shipments this year, which makes it the number one in exports of rice. wheat, the country is ranked second.

- India is not a very exporter of significant size. Where is India export rice? Over 75% of the basmati exports last year were made to Iran along with those of the Arabian Peninsula countries; the US, UK, Canada and Australia were also involved. 10 percent..
- In non-basmati rice, nearly 55% was sent to African countries, including Benin, Ivory Coast, Senegal, Togo, Guinea Parboiled Rice Parboiling is which involves soaking the rice in water, then steamed and dried, while keeping its outer husk.
- There is, however, no precise definition of parboiled rice from the Food Corporation of India or the Ministry of Consumer Affairs, Food and Public Distribution.
- Recently, the Government has made a decision to stop purchasing as FCI has enough stocks and there is not a need for this grain under the Public Distribution System (PDS).
- Telangana is a parboiled surplus producing region. It doesn't consume rice cooked in parboiled however, it only produces that are always surplus and sent to FCI.
- Rice Varieties that can be used for parboiling generally, all varieties can be transformed into rice parboiled, however it is best to select longer slender varieties in order to avoid breaking during milling.
- However, the aromatic varieties shouldn't be cooked as the process may cause it lose its flavor.
- Benefits of boiling rice makes it stronger and reduces the chance for the grain breaking in milling.
- The parboiling process also boosts the value of nutrients in the rice.
- Parboiled rice has a greater resistance to fungi and insects.

Topic 9. CABINET APPROVES ADDITION OF FOUR TRIBES TO ST LIST

Important for subject: Polity

The Union Cabinet under the chairmanship of Prime Minister Narendra Modi, has approved the inclusion of four tribes on the Scheduled Tribes (ST) which includes those of Himachal Pradesh, Tamil Nadu and Chhattisgarh.

- The Hatti tribe of the Trans-Giri region located in Sirmour district of Himachal Pradesh, the Narikoravan and Kurivikkaran hill tribes of Tamil Nadu, and the Binjhia tribe of Chhattisgarh that was listed in the list as ST for Jharkhand along with Odisha

but not Chhattisgarh The communities were added to the list.

- The Constitution allows the President to determine what are the Scheduled Tribes (STs) in different states and union territories. In addition, it allows Parliament to amend the list of STs that are notified.
- Scheduled Tribe Scheduled Tribe Article 366(25) in the constitution defines Scheduled Tribes, which are communities that are scheduled as per Article 342 of the Constitution.
- Article 342 states that only communities that are declared to be Scheduled Tribes by the President either through an initial public announcement or by a subsequent amendment Act of Parliament will be identified as Scheduled Tribes.
- This List of Scheduled Tribes is specific to each State or UT and a tribe that is designated as an Scheduled Tribe in a State does not have to be the same in a different State.
- The Constitution does not specify the criteria used to define an entity as an Scheduled Tribe.
- Primitiveness, geographical isolation insecurity, and economic, social and educational backwardness are some of the characteristics that differentiate Scheduled Tribe communities from other communities.

Topic 10. CONSTITUTIONAL MONARCHY

Important for subject: Polity

King Charles III's speech in his British Parliament in the morning of Monday and nearly all of his public actions and statements following the death of Queen Elizabeth are about defending the constitutional monarchy system in Britain.

- Britain is not a member of a single constitution that is similar to the one that was ratified by United States in 1788.
- There are laws in place and well-documented customs that make up the constitution, which is binding on the king.
- The rules have developed over decades of legislation, and have an array of conventions.

Constitutional Monarchy:

- Constitutional monarchy is a form of government where the monarch is able to share

power with the constitutionally organized government.

- The monarch could be the official head of state, or a solely ceremonial leader who is merely a formality performer but is not able to exercise any actual power in the role of Prime Minister.
- The constitution delegates the rest of the powers of the government to the legislature and the judiciary.
- The countries that have Constitutional monarchies include England, Belgium, Cambodia, Jordan, the Netherlands, Norway, Spain, Sweden and Thailand.
- British Constitutional Monarchy: The British Monarchy is a constitutional monarchy due to the fact that as the Sovereign is the head of state, the power to formulate and adopt laws rests with an elective Parliament.
- The British monarch has the reigns, but is not the ruler this means that in spite of being the head of state He/she doesn't have real power.
- The monarch must remain completely neutral in the political situation.

Powers and Roles:

- The appointment of the Prime Minister and the government: Monarch chooses the Prime Minister, who has the support of the majority of MPs.
- If the leader of the party is elected to general elections the Governor invites the leader for a visit to Buckingham Palace to form the government.
- The power to choose or demit the Prime Minister no longer belongs to the monarch.
- Inaugurating the parliament: Monarch begins the year of Parliament with an official State Ceremony where he/she gives an address on the policies of the executive and priority issues within the House of Lords.
- Assenting legislation The sovereign gives his or her Royal Assent to bills that are approved by the House of Lords Commons but it is now basically an exercise in rubber stamping since the last time that a bill was rejected its Royal Assent came in the year 1707 when Queen Anne.

Commonwealth Realms:

- The Monarch is also the chief of the Commonwealth of Nations, an organization that is the product of the former British empire.
- It is comprised of 56 sovereign nations.
- Gabon along with Togo are among the latest members in the commonwealth.

Topic 11. PARLIAMENTARY COMMITTEE

Important for subject: Polity

The Parliamentary Committee on Health and Family Welfare has suggested to it be the Union minister of health, together with the states, review deaths of patients of Covid-19 due to oxygen shortages during the second wave and provide proper compensation to families of the victims.

Parliamentary committees come in two types:

- **Standing Committees** They are regular and permanent committees, which are established periodically as per the requirements in an Act of Parliament or Rules of Procedure and Conduct of Business in Lok Sabha.
- These committees is continuous.
- The Financial Committees and DRSCs as well as other Committees are part of the umbrella of standing Committees.
- Ad committees are created with a specific goal and cease to exist after they complete the task they were assigned and present an report.
- The main Ad Committees that are ad hoc include those of the Select or Joint Committees on Bills. Railway Convention Committee, Joint Committee on Food Management in the Parliament House Complex etc also are classified as Ad hoc committees.
- The Constitution of India makes a mention of these committees in various places, however without making any specific provision about their composition, their tenure and functions, for instance.
- These issues are handled through these rules, which are enforced by two Houses.
- In other words, a parliamentary panel refers to a committee: is appointed or elected to be elected by the House or appointed by the Speaker/Chief is under the direction of the Speaker or Chairman Reports in the House or the Speaker or Chairman a secretariat provided by Lok Sabha / Rajya Sabha
- The creation of 17 standing committees for departments (DRSCs) in March 31st 1993 was a major breakthrough that increased scrutiny by the parliament and allowed MPs to play a greater responsibility in reviewing laws and other important decisions that were being made.
- The number of DRSCs is 24. DRSCs including sixteen from Lok Sabha and 8 from

Rajya Sabha. Each committee includes 21 members who are from Lok Sabha and 10 from Rajya Sabha.

- **The purpose:** Due to the amount of legislative work and the limited time available, it is impossible for MPs to talk about and scrutinise every bill within the House.
- The committees of parliament, whether created to study a specific law (select committee) or permanently (standing committees that meet each year) provide for a public scrutiny with the potential of engaging Important experts from outside as well as other parties in a setting in which MPs aren't bound by whips or party positions.

Topic 12 CONSUMER PROTECTION

Important for subject: Polity

Guidelines to be released are due soon for influencers on social media and must reveal brand links It is the Department of Consumer Affairs has created draft guidelines for influencers on social media which require them to publicly disclose their relationship with the brand they endorse.

- According to the new rules anyone who endorses the product of a company on social media is required be able to reveal whether he/ received a payment from the business.
- He/she will be required to declare his/her connection to the brand.
- Additionally, the influencers have to include disclaimers in the endorsement posts.
- The Department of Consumer Affairs had scheduled a meeting with stakeholders and e-commerce companies for discussion on the "magnitude of fraudulent reviews" and create a roadmap for the future".
- Advertising Standards Council of India The Advertising Standards Council of India (ASCI) is a non-profit self-regulatory body of India's advertising sector. India.
- The company was founded in 1985. ASCI was registered in 1985 as a nonprofit organization under the section 25(1) of the Company Act ASCI looks into complaints in ALL media, including Print television, radio hoardings and emails, SMS, internet/web-site brochures, packaging for products promotional materials, merchandise for point of sale, etc.

Topic 13. THE BHARAT RATNA, INDIA'S HIGHEST CIVILIAN AWARD, WAS INSTITUTED IN JANUARY 1954. THE AWARD IS CONFERRED UPON INDIVIDUALS IN RECOGNITION OF EXCEPTIONAL SERVICE/ACHIEVEMENTS IN ANY FIELD OF HUMAN ENDEAVOUR.

Important for subject: Polity

From 1954 to May 2022 in May 2022, between 1954 and May 20, 2022 the Union government has honored 48 distinguished individuals through the Bharat Ratna.

- In all political figures were the top winners, with 25 of them.
- The other recipients were musicians, reformers of the social sphere industrialists, engineers and physicists, scholars as well as sportspersons.
- But there is no agricultural scientist or expert related to it has been awarded this coveted prize until now! Since the independence of India, India has made tremendous advancements in the integrated agriculture sector that includes the cultivation of food crops, horticultural plants and plantation crops, as well as livestock and poultry husbandry in addition to fish and aquacultures, sericulture, and apiculture. They also play a role in the protection of plants, fertilisers gathering, and food processing and more.

The most significant breakthroughs in these fields are:

- Green Revolution (foodgrains: wheat rice, rice and many other crops) in 1965;
- Silver Revolution (poultry and eggs) - - from 1969;
- Silver Fiber Revolution (cotton crop) in 1970;
- White Revolution (milk/dairy) - since 1970. (v) Blue Revolution (fish/aquaculture) From 1985;
- Golden Revolution (horticulture -- vegetables, fruits, flowers and apiculture, honey production, etc.) starting in 1991.
- There are many more similar to Yellow Revolution (oilseeds), Grey Revolution (fertilisers), and Red Revolution (meat production).
- Despite all these accomplishments there is no agricultural scientist or expert has ever been awarded an award like the Bharat Ratna.
- Prof. MS Swaminathan, who is now aged 97, is hailed as the 'Father of Green Revolution in India' and later, Verghese Kurian is the undisputed 'Father' of White Revolution.'

- They have been recommended numerous times over the past 3-4 decades to be this Bharat Ratna, however, they were not even thought of!

Topic 14. THE ILO DECLARATION ON FUNDAMENTAL PRINCIPLES AND RIGHTS AT WORK

Important for subject: International relations



The ILO Declaration on Fundamental Principles and Rights at Work, adopted in 1998, and later amended to 2022.

- It is a statement of the commitment of governments, employers as well as workers' associations to protect fundamental human rights and values that are fundamental to our economic and social lives.
- This commitment is backed by a follow-up process.
- They affirm the rights and obligations that are essential to being a member of the ILO which include freedom of association as well as the acknowledgement of the rights to bargain collectively; elimination of any form of compulsory or forced labour and the effective elimination of child labor; the elimination of discrimination of occupation and employment; and an hygienic and safe working environment.
- Follow-up Procedure for the declaration: The goal of the follow-up procedure is to support the efforts of the members of the Organization to advance the fundamental rights and principles as enshrined by the Constitution of the ILO as well as the Declaration of Philadelphia as well as reiterated by the Declaration.

This follow-up comprises two elements from the existing procedures:

- The annual follow-up on Conventions that have not been ratified as essential Conventions
- The Global Report on fundamental rights and principles at work to inform the ongoing discussion during the Conference regarding the needs of the participants as well as the ILO initiatives taken, as well as the outcomes achieved in the promotion of fundamental rights and principles at work.
- There is a third method to make use of the Declaration as well, which is that is through Technical Cooperation Projects which are specifically designed to address the identified requirements in relation with the Declaration and to build local capacities, thereby translating principles into practical.

Topic 15. SCO

Important for subject: International relation



Indian PM Narendra Modi will attend a summit of the regional group of security Shanghai Cooperation Organisation (SCO) in the coming week.

- The Shanghai Cooperation Organisation (SCO) is an intergovernmental permanent international organization, the establishment of that was officially announced on the 15th of June the 15th of June in Shanghai (China) from the Republic of Kazakhstan, the People's Republic of China, the Kyrgyz Republic, the Russian Federation and the Republic of Tajikistan, and the Republic of Uzbekistan.
- This was followed by the Shanghai Five mechanism.

The main objectives of the SCO are:

- improving mutual trust and good neighbourliness between members; encouraging their cooperation in the areas of trade, politics, research, economy and culture as well as in the fields of education, energy transportation tourist, environment protection and many other areas and collaborating to preserve and guarantee peace, security, and stability throughout the region; and working towards the establishment of a fair, democratic and rational international order in economics and politics.
- The Heads of State Council (HSC) is the highest decision-making body of the SCO.
- It meets every year to adopt rules and policies on the most important aspects of the organization.
- The SCO Heads of Government Council (HGC) meet once a calendar year in order to debate the organization's multilateral cooperation strategy and its priority areas.
- The SCO's principal languages of operation are Russian along with Chinese.
- The organization is comprised of two different bodies The SCO Secretariat based in Beijing and the Executive Committee of the Regional Anti-Terrorist Structure (RATS) located in Tashkent.
- SCO is comprised of eight member states: India, Kazakhstan, China, the Kyrgyz Republic, Pakistan, Russian, Tajikistan and Uzbekistan.

Topic 16. WORLD HEALTH ORGANIZATION NEW FRAMEWORK ON LIFE SCIENCE

Important for subject: International relations



It is the first time that the World Health Organization has come out with a global on the responsible application in the field of Life Sciences.

- The new framework is designed to address the long-standing problems of preventing the intentional and deliberate misuse of life sciences, and how to regulate governance to speed up and expand innovations, while minimizing negative effects.
- Life sciences are becoming increasingly interconnected with other fields like chemical engineering, artificial intelligence and nanotechnology. This is changing the nature of risk, and can be overlooked.
- It also highlights the need for responsive and anticipatory governance structures, such as the use of foresight strategies that are participative and multidisciplinary approaches to analyzing patterns, new developments as well as the systemic effects and alternative perspectives.
- In order to manage the risks, it addresses issues such as preventing misinformation or information disinformation, and managing large sets of health information.
- The framework is designed to be the ideal base for the creation and strengthening of bio-risk management. It is built on three fundamental pillars including biosafety, lab biosecurity, and the supervision of research that is dual-use. Dual-use technology is the term used to describe the using technology for purposes both for military and

civilian use. Life science is a huge research area that examines all living things on Earth.

- From begonias, bacteria to beluga whales. Life sciences seek to understand everything about the life on earth.
- CRISPR acronym stands for Clustered Short Palindromic Repetitions, which was created in the year 2012 by CRISPR. CRISPR has made editing genes simple and easy as well as simultaneously extremely efficient.
- The process works in a very simple manner -it identifies the particular region of the genetic sequence that is believed to be the root of the problem is cut out then replaces the area with a different and proper sequence that no longer creates the problem.
- The technology is based on an inherent defence mechanism that is present in certain bacteria that employ the same method to defend itself from attacks by viruses.
- The CRISPR is programmed to identify the specific sequence that is problematic in the DNA line.
- A particular protein, called Cas9 which is frequently referred to in popular books as a 'genetic scissor' is utilized to cut and eliminate the sequence that is problematic.
- A DNA strand that is damaged, naturally has the tendency to heal itself. However, the auto-repair mechanism could lead to renewal of an infected sequence.
- Scientists assist in the auto-repair process, by providing an appropriate sequence of genes which is then replaced by the original.
- It's like cutting an area of a long zipper between two and then replacing the portion with a new segment. Because the whole procedure is programmed this process has an incredible efficacy and has already delivered astonishing results.
- Applications of CRISPR There are a variety of disorders and diseases which include some forms of cancer which are caused by unintentional genetic mutation.
- These include common blood diseases like sickle cell anaemia eye diseases such as color blindness, various forms of diabetes, cancer HIV as well as heart and liver diseases.
- A lot of them are genetic too.
- This technology offers potential for finding a long-term solution for many of these illnesses. The genes of plants are able to be modified to help them resist pests or enhance their resistance to drought or temperatures.

- The same is true for deformities that result from genetic abnormalities sequences, such as slow or stunted growth speech problems, or inability to walk or stand.
- Concerns about ethics In November of 2018 the Chinese researcher from Shenzen caused a sensation in the world by claiming that he changed the human genes in an embryo which led to twin girls.
- The first time that we have seen a documented instance of a "designer baby" created using the latest tools for editing genes, such as CRISPR.
- The problem was the fact that gene editing was likely done without approval from the regulatory authorities or oversight.

Topic 17. THE BRITISH COMMONWEALTH: ITS PAST, PRESENT, AND POST-QUEEN ELIZABETH FUTURE

Important for subject: International Relation

The demise of the Queen Elizabeth II has been a sensitive occasion for British Commonwealth which comprises 14 nations that acknowledge the monarch as the Head of State, a situation which is clearly stated in the constitutions and laws of a few of these nations.

- In these situations, changes of the laws or regulations could be required , and this could lead to calls for a vote in those areas in which there is a significant amount of opposing the present law or statute.
- Jamaica is a prime example, and it is likely to be following its regional neighbor Barbados that left the Commonwealth following the establishment of a republic in 2021.
- Countries that are developed like Australia, New Zealand, and Canada are constitutional monarchies and their systems of government are structured in such a manner that the next monarch of the United Kingdom will as part of the normal procedure be elected as their head of state.

Commonwealth of Nations

- The Commonwealth of Nations The Commonwealth of Nations, also known as simply the Commonwealth is a collective comprised of 56 member nations, most of which were once British colonies.
- They're found mostly situated in Africa, Asia, the Americas along with the Pacific.

- Three European nations form included in the Commonwealth: Cyprus, Malta and, obviously the UK itself.
- The 14 countries of the 56 together with the UK together form "Commonwealth realms" "Commonwealth domains".
- They include Antigua and Barbuda, Australia, The Bahamas, Belize, Canada, Grenada, Jamaica, New Zealand, Papua New Guinea, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Solomon Islands, and Tuvalu.
- The British monarch -- currently "King" Charles III -- who is the third oldest daughter of Queen Elizabeth II reigns as the supreme head in these countries.
- In the other 41 state of the Commonwealth 36 are republics. This group comprises India, Pakistan, Bangladesh as well as Sri Lanka.
- The five other countries (five) -The other five - Brunei Darussalam, Lesotho, Malaysia, Eswatini (formerly Swaziland) and Tonga -- each have their own monarchs.
- In the greater Commonwealth the most well-known common aspect will be the Commonwealth Games which is a multi-sport international contest which is held at least every 4 years, in any of the member nations.
- The Commonwealth Games -- which were held by India during 2010 as well as the most recent edition of which took place at Birmingham, England last month and are essentially the only connection that regular Indians form with the Commonwealth although there are many other aspects of intergovernmental collaboration within the organization.
- The history of the Commonwealth The Commonwealth has 2.5 billion individuals, nearly a third of the entire world's population, with the majority of them living on India. Indian subcontinent.
- The Commonwealth was born from attempts by queen Victoria to keep her the colony's control as growing independence movements grew stronger.
- In 1867, when Canada expressed its displeasure with imperial oversight The Queen accepted to give an authority status to the province which meant it could be self-governing, however Britain could exercise veto power at the discretion of the monarch.
- In the following decades, other mostly white British colonies were also incorporated into dominions, including Australia, New Zealand, and South Africa.

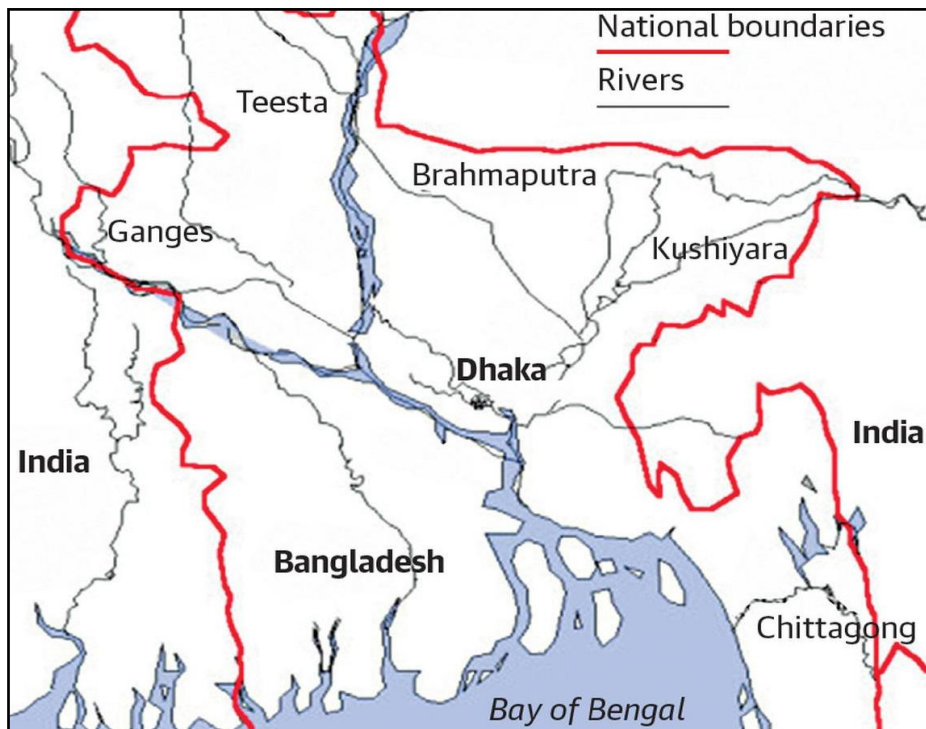
- Following World War I, rising waves of nationalist sentiment within the dominions led to further changes. In the year 1926 Britain along with the rest of the world were able to agree that they would have equal respect to status.
- This declaration, which was formalised in The Statute of Westminster, adopted in 1931 was the first step towards the establishment of the British Commonwealth of Nations.
- While India was in attendance at the discussions, the leaders in the Indian National Movement pushed for complete independence.
- In 1949, the newly self-governing India were invited by the newly independent India to be a part of the Commonwealth The Premier Jawaharlal Nehru backed the move with a crucial caveat.
- India requested to be admitted to membership without being required to swear allegiance the Crown.
- The members of the group agreed and in the following year, India, Pakistan, and Ceylon (Sri Lanka) joined the Four nations of the Commonwealth -including Mozambique (1995), Rwanda (2009), Togo (2022) as well as Gabon (2022) and which had no colonial connection with Britain.
- Mozambique was an Portuguese colony. Rwanda was ruled by Belgians and Germans as well as Togo and Gabon were ruled by the French.
- It is vital to stress however that the Queen did not have any influence in the management of the states that are members that comprise the Commonwealth of Nations or those of the Commonwealth realms that she was the head of state.
- In the second category of nations she was entrusted with constitutional obligations, including the approval of the new governments, and sometimes laws; and conferring of state honors or the selection of officials.
- Exiting Commonwealth countries Commonwealth in the 70s a number of nations decided to leave the Commonwealth domain, which included Dominica, Guyana, and Trinidad and Tobago, effectively taking away the Queen from their position as chief of state.
- In 2021, just as Barbados was leaving the country the Governor General of Barbados argued that "the time is now to end our colonial history".
- The departure was scheduled to coincide with the 55th anniversary Barbados's

independence from UK.

- Analysts have pondered whether now that Elizabeth gone in the throne, the new monarch will be able to legally designate Governors-General in the countries of the Commonwealth world if the countries don't first alter their constitutions to mention "the "King" as the head of state, in place of Queen Elizabeth.
- If Canada was to decide to leave the country it would be necessary to amend its constitution would be needed.
- If it were Australia the issue would need to be an election.
- A referendum that sought to confer on an Australian Parliament the authority to select the head of state for the nation was rejected by 45 percent to 55 percent however, a new referendum could be scheduled by the current government.
- What exactly is Constitutional Monarchy?
- The constitutional monarchy an arrangement of government in which the monarch acts as the head of state , while exercising the authority of written (i.e. codified), unwritten (i.e. not codified) or mixed.
- Absolute monarchy is distinct from constitutional monarchy because it is the only source of power within the state, that isn't legally bound by any constitution.
- According to the constitution, constitutional monarchies generally have a parliamentary system, that allows the monarch to exercise only ceremonial or reserve power.
- There is a prime minister, who is the leader of the government and has a strong political influence whether directly or indirectly elected.

Topic 18. WHY IS THE KUSHIYARA RIVER TREATY BETWEEN INDIA AND BANGLADESH IMPORTANT?

Important for subject: International Relation



In the course of Bangladesh Premier Sheikh Hasina's visit in India between September 5 and 8 on September 8, the two parties have signed several agreements which included the very first sharing of water agreement in the years since the historic Ganga Waters Treaty, 1996.

- A memorandum of agreement (MoU) was made on the sharing of water of the Koshiyara river, which is a tributary to the Barak river that flows through Assam and on to Bangladesh.
- The agreement is coming in an era when the two countries of Lower Assam and lower Assam in India as well as Sylhet in Bangladesh are experiencing devastating flooding, highlighting the need for greater cooperation in water control issues and irrigation between both nations.

How do I know what is the Koshiyara agreement?

- Over the past 100 years the flow of the Barak the river changed to the point that the majority of the river's flow flows into Koshiyara while the rest flows into Surma.
- In the terms of the agreement Bangladesh can take up to 153 cusecs (cubic feet per second) of water from the Koshiyara which will resolve the water shortage for farmers in Sylhet.

- There are many estimates of the areas which will be benefited from the water supply but the general consensus is that around 10,000 hectares of surface and millions of individuals will be benefited by the flow of water through canals in Sylhet that will benefit farmers in Boro rice which is the rice that is grown in the dry season from December through February, and harvested in the early summer.

What are the challenges in getting to Teesta agreement?

- It is worth noting that the Kushiara agreement is somewhat smaller in terms of size in comparison to Teesta that includes West Bengal, which has issues with the plan.
- The Kushiara agreement was not a requirement for approval from any State such as Assam from where the Barak is born and then branches off to Kushiara as well as Surma.
- The decreased flow of the Kushiara in winter and Teesta as well are raising crucial questions regarding the effects of climate changes to South Asian rivers that can be detrimental to communities and prompt migration.
- Bangladesh has pointed out the low flow of water in its rivers during winter months as a cause of concern because it affects its agricultural sector.

Topic 19. DEPENDENCY POPULATION

Important for subject: Geography

The King's speech to the British parliament on the early morning of Monday, and the majority of his public actions and declarations after his death as Queen Elizabeth are in defense of the monarchy's constitutional system in Britain.

- Britain isn't an ally of a single constitution which is identical to the one approved by United States in 1788.
- The constitution has laws that have been enacted and well-documented customs which constitute the constitution that are binding for the king.
- These rules were been developed through decades of legislation and are based on a myriad of agreements.

Constitutional Monarchy:

- Constitutive monarchy refers to a kind of government in which the monarch can share the power with the constitutionally-organized government.
- The monarch may be the chief of the state, or simply a ceremonial leader that is

performing formality, but not competent to exercise any authority in the position of the Prime Minister.

- It is the constitution that delegates the other power of government over to legislature as well as to the judiciary.
- The countries with Constitutional monarchies are England, Belgium, Cambodia, Jordan, the Netherlands, Norway, Spain, Sweden and Thailand.
- the British Constitutional Monarchy It is the British Monarchy is a constitutional monarchy due to the fact that since the Sovereign is the state's head The power to create and pass laws rests with an elected Parliament.
- The British monarch is the head of state but isn't the head of state, which means that despite being head of the state, they don't have any real power.
- The monarch should remain totally neutral in the current political environment.

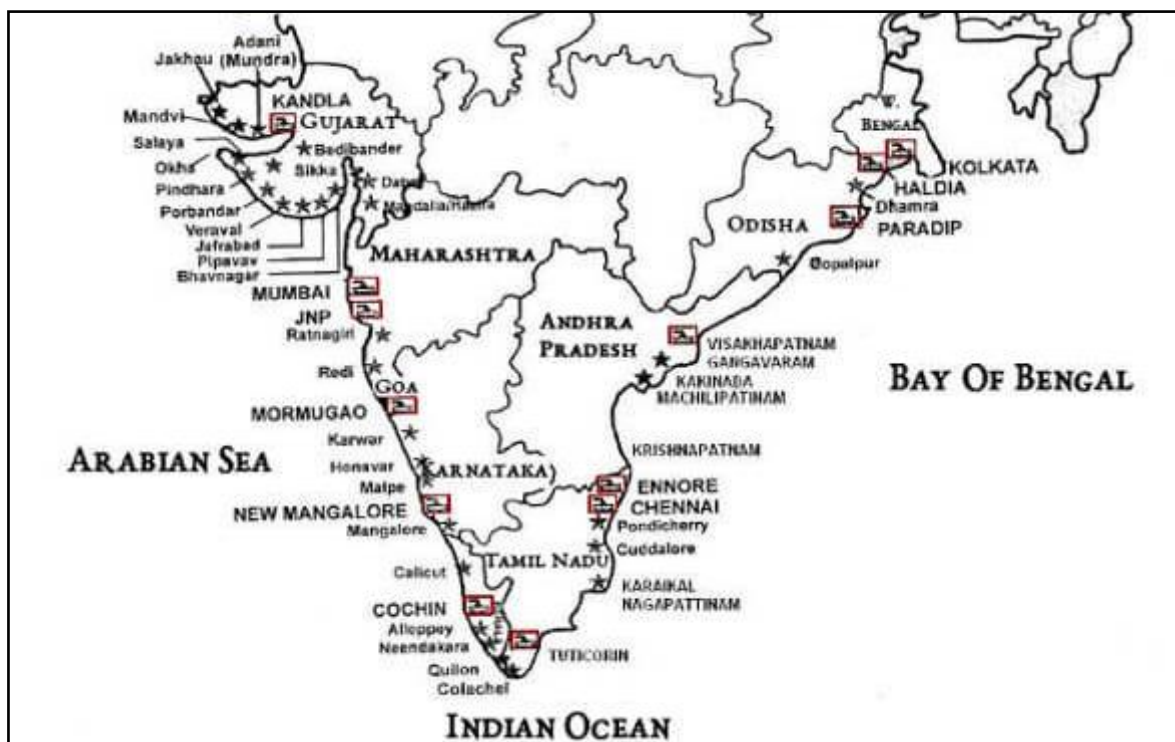
Roles and Powers:

- The selection to the post of Prime Minister and government: The Monarch picks the Premier Minister, who is backed by the backing from the overwhelming majority of MPs.
- In the event that the candidate for the leadership position is elected to general elections, the Governor invites the leader to the trip to Buckingham Palace to form the government.
- Power to elect or remove the Prime Minister's authority no longer belongs to the monarch.
- Inaugurating the Parliament: Monarch begins the year of Parliament by holding an official State Ceremony during which he/she will deliver an address about the policies of the executive as well as priority issues in the House of Lords.
- Assenting laws The monarch issues his or his or her Royal Assent to bills accepted through the House of Lords Commons but it's now primarily the process of rubber stamping because the last time the bill was rejected, the Royal Assent was in 1707 when the Queen Anne.
- Commonwealth Realms In addition, Monarchs are the head member of the Commonwealth of Nations, an organization that is a product of the previous British Empire.
- It is composed of 56 sovereign states.

- Gabon as well as Togo have been among the most recent members of the commonwealth.

Topic 20. MAJOR AND MINOR PORTS

Important for subject: Geography



India includes 12 ports of major importance, and 212 non-major ports. A majority of the non-major ports are fishing harbors that are small and only a handful of them are able to accommodate shipping from abroad.

- Major ports feature within major ports are listed in the Union List and come under the supervision under the Central government.
- Ports that are not major are included in the Concurrent List and are under the respective state governments, however the Centre is able to override the executive and legislative power. 95 percent of the quantity and 70% value of India's international trade is conducted by maritime transportation.
- Each port in India are located within the nine state that are coastal in India including Kerala, Karnataka, Maharashtra, Goa, Gujarat, West Bengal, Odisha, Andhra Pradesh, and Tamil Nadu.
- Mumbai is the most important natural port of India.
- Although the Major Ports remain under the administration of the Ministry of

Shipping, the ports that are not major fall under the control of their specific State Maritime Boards/ State Government.

Topic 21. THE SLOWDOWN OF CONTINENTAL PLATES LINKED TO VOLCANIC ERUPTIONS TRIGGERED MASS EXTINCTIONS: STUDY

Important for subject: Geography

The slow-moving plates of the continental crust could have led to a succession of eruptions of volcanic ash and massive extinctions during the Toarcian Period -- the most warm period of the Jurassic Period -- about 183 million years ago, as per an article released in Science Advances.

- The study's theory is based on Continental plates were in shifting over hundreds of million of years.
- This allowed landmasses to merge and then split over different time periods.
- The latest study suggests that a slowdown in the movement of the continental plate probably influenced the beginning and time of several significant volcanic eruptions throughout the course of Earth's history.
- This is the "fundamental control mechanism for the development of the climate and life on Earth's surface throughout the entire history of our planet."
- How does the slow movement of the continental plates causes volcanic eruptions that are like placing paper under the light of a candle.
- If the paper is moved quickly over the flame, it might turn black, but it is not likely to ignite all over. If the paper is moved slowly across the flame, it is sufficient time to ignite the paper completely.
- In the near future it is possible that plates on the continents slow down, triggering eruptions of volcanic origin.
- Studies Researchers in Canada and the United Kingdom and Canada collected sediments that were found on the sea floor in the Cardigan Bay basin, a huge inlet in the Irish Sea.
- The sediments of during the Toarcian Period showed elevated levels of mercury. This is several orders of magnitude more than sediments that were formed in other periods.
- Modern volcanic eruptions can release mercury in the atmosphere and oceans.
- This implies a direct link to volcanic eruptions and emissions of greenhouse gases that

were associated with it as well as the climatic or environmental changes during that time.

- The previous studies have found a link between major volcanic eruptions to mass extinctions and disturbances of the global carbon, environmental and climatic cycle.
- Large volcanism in igneous provinces, the result of massive volcanic eruptions that have occurred throughout the history of Earth, have release large amounts of greenhouse gases as well as toxic substances in the atmosphere.
- The sea's temperature rose from 4 to 10 degrees Celsius, and this was even in mid- and low-latitudes.
- The rise in acidity and the shortage of oxygen led to significant ocean extinctions.
- At the time, massive-scale volcanism occurred in the southern part of Africa, Antarctica and Australia.
- It is also known as the KarooFerrar Large Igneous Province.
- Modelling of the theory researchers utilized models to determine the position of continents over different time periods.
- After comparing these models to the time span of volcanic activity and observed that continents moved under two centimetres each year.
- This pattern is not limited to the in the Karoo-Ferrar Large Igneous Province, but as well within the Siberian traps - closely linked with the Great Dying 250 million years ago as well as that is, the East African Rift valley and the North Atlantic Igneous Province.
- This slowing down of motion gives the mantle underneath time to break down the base of the continent, eventually which can lead to eruptions.
- Conclusion In the future there's a chance that the plates of the continental continent slow down, triggering eruptions of volcanic origin according to scientists.
- At this point it is difficult to know precisely when and when it will happen.

Topic 22. WHY CLOUDBURST FORECAST IN INDIA STILL REMAINS ELUSIVE

Important for subject: Geography

What exactly is Cloudburst?

Cloudbursts have a specific definition: A rainfall that is 10 cm or greater per hour over an approximately 10 km x 10 km area is considered to be a cloudburst.

- In this sense 5 cm of rain within a half-hour period in the same region can be considered cloudburst.
- Cloudbursts are typically caused by cumulonimbus clouds, which can cause thunderstorms, and sometimes due to monsoon-related wind surges and other weather phenomenon.
- Cumulonimbus clouds can rise as high as 12-15 km in height across the whole stratosphere (occasionally even 21 kilometers) and are able to hold massive quantities of water.
- Particularities The main characteristics are that in India cloudbursts are common during monsoon seasons which is when the south-westerly monsoon winds bring large amounts of water in the inland.
- The humid air that is circulating over the land is lifted when it encounters the hills.
- The humid air rises to an altitude before becoming filled with water, and it begins condensing from the air, forming clouds.
- This is the way clouds typically appear, however, an orographic lifting in combination with a significant convergence of moisture can result in massive cumulonimbus clouds that absorb massive amounts of moisture which is ejected during cloud bursts.
- Cloudbursts that are prone to cloudbursts Cloudburst therefore, are most common on the rugged terrains that surround the Himalayas as well as in the Western Ghats, and north eastern hill states of India.
- The torrential rains on the fragile slopes can trigger landslides, debris flash floods, and flows that cause extensive destruction and the loss of life and property.
- Recent storms of clouds that caused substantial destruction occurred in the Himalayan valleys of the foothills of Himachal Pradesh (in the year 2003), Ladakh (2010) along with Uttarakhand (2013).
- Cloudbursts were observed in the northeastern States and the Western Ghats States



during the monsoon season that is currently in effect (2022).

- On July 8 , 2022 Flash floods were reported at the Lidder Valley on the way toward Amarnath Temple in Jammu and Kashmir and claimed the lives of many pilgrims.
- Although the media has claimed that this event was caused by clouds that erupted downstream of the temple, there isn't any meteorological record from the region around to confirm this.
- Forecasts for the weather forecasts suggested scattered light rains in the region. The IMD reported moderate rain in the Temple Station.
- Monitoring stations in the ground are unable to observe the cloudburst features because of their extremely limited and quick time of occurrence.
- Thus, most of these events are not reported because of the absence of monitoring mechanisms in the region, reducing our ability to analyze the events from a holistic context.
- The heavy rains and the waterlogging caused waterlogging to bring Bengaluru into a standstill in the first week of September 2022.
- There was no indication that any of the cities' weather stations recorded clouds, but they did report torrential rains throughout the week, when the monsoon winds grew stronger due to a low-pressure region which was developing over the Arabian Sea.
- Massive monsoon winds that surge along the coast could cause cloudbursts like the cases of Mumbai (2005) as well as Chennai (2015).
- Cities in the coastal zone are especially susceptible to storms caused by cloudbursts because flash floods render regular flood and storm water management strategies in these cities unsustainable.
- Cloudburst detection satellites can be extremely useful in the detection of large-scale monsoon storm systems however, the resolution of radars for precipitation of these satellites may be less than the surface of the individual cloudbursts, and consequently, they are not detected.
- Forecast models for weather also have the same challenge when it comes to simulating the clouds with the highest resolution.
- The art of forecasting rainfall in hills is difficult due to the uncertainty in the interplay between the convergence of moisture with the terrain the cloud microphysics, as well as the cooling mechanisms that heat up at different atmospheric levels.

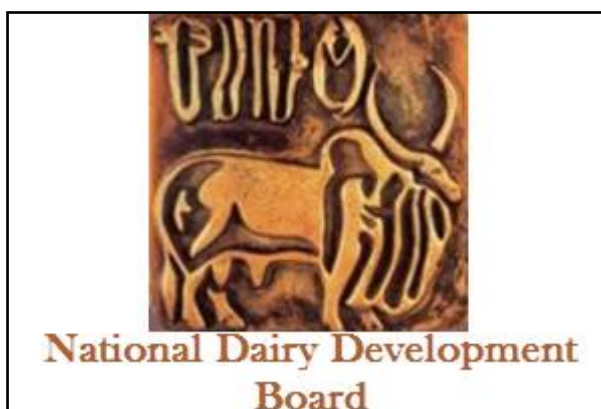


- The forecasts of the IMD, and generally, the overall forecast for weather, have been developed to the point where widespread extreme rains are forecasted two to three days ahead of time.
- Cyclones are predicted approximately one week ahead. However, forecasts for cloudbursts aren't available.
- Multiple doppler weather radars may be used to observe the motion of cloud droplets and give current forecasts (forecasts in the coming three hours).
- This is a great method of delivering warnings, however, radars can be expensive and their installation all over the nation may not be practical.
- An ideal long-term solution would be tracking the cloudburst-prone areas by using rain gauges that are automated.
- If the cloudburst-prone areas are located in conjunction with areas prone to landslides, these regions can be designated dangerous.
- The dangers at these places could be very high, and the people must be relocated to safer areas, and mining and construction in the surrounding areas must be halted as it could exacerbate the landslides and flash floods.
- The climate change process is expected to increase the intensity and frequency of cloudbursts around the world.
- When the temperature of the air increases it is able to hold more moisture and last for longer. We refer to this as "the Clausius Clapeyron relationship."
- One degree Celsius rise in temperature could translate to an increase of 7-10% in rainfall and moisture.
- The increased amount of rainfall doesn't spread evenly throughout the year.
- When the capacity to hold moisture of the air grows this causes prolonged dry spells that alternate with brief intervals of heavy rain.
- Cumulonimbus clouds that are deeper form and the chance of cloudbursts increase too.
- Numerous times Cloudbursts are frequently reported from all over the world.
- The sign of climate change is evident, but we don't have the long-term (20 year or greater) daily data to confirm the fact.
- With IMD upgrading its automatic forecasting stations for weather, we might be able to collect hourly data to help us map regions prone to cloudbursts.

- The changes in monsoon extremes and the cloudbursts we are seeing now is a response to the one degree Celsius increase in the global surface temperatures.
- As the number of emissions continues to rise and the global commitment to cut emissions fails, temperatures are expected to reach 1.5degC in 2020-2040, and 2degC in 2040-2060.
- We'll need to take urgent action and policies in order to safeguard our property and lives from the ravages of extreme weather events that increase as global temperature increase doubles.

Topic 23. NATIONAL DAIRY DEVELOPMENT BOARD (NDDB)

Important for subject: Government Schemes



NDDB Dairy Services, an affiliate that is part of National Dairy Development Board (NDDB) has conducted successful tests in the field of sex-sorted semen use.

- The sex-sorting semen technique is the reproduction process of animals is comparable to that of humans.
- Cows are chromosomes with XX and bull semen is able to carry both the X and Y.
- If the egg fertilized by an 'X'-chromosome the female calf will be born. If it is a the 'Y' chromosome it is a male born.
- There are two methods to make sexed sperm Sorting process- In this process, the both 'X' and 'Y' the chromosomes are separated.
- The 'X' is kept and 'Y' is discarded.
- In vitro killing - In this process "Y" chromosomes, they are all destroyed.
- Sex-sorting semen technology explained in detail Sexed semen is a specifically processed bulls' semen that contain 'Y' chromosomes within sperm cells can be eliminated by a sorting process or destroyed.

- Semen that has only "X" chromosomes is able to guarantee that a female calf is born.
- Cows are impregnated with sexually sexed semen using the artificial insemination process, which requires the consumption of one straw for each cow.
- Success rate: Sexed semen guarantees 90% female births, not 100 %.
- In 10 percent of cases male calves could be born without sexually sexed sperm because, even after sorting or killing, certain of the Y chromosomes might fail.
- National Dairy Development Board (NDDB) It was established in 1965 to end the exploitation of people with empowerment, traditional in modern times, and stagnation and growth, and to transform dairying into a means for development of the rural population of India.
- The National Dairy Development Board, originally registered as a society in the Societies Act 1860, was joined with the former Indian Dairy Corporation, a corporation that was established and licensed pursuant to the Companies Act 1956, by the NDDB Act 1987, with starting on the 12th October 1987.
- The NDDB is an institution of national significance created through an act of the Indian Parliament and therefore is an official institution.
- National Dairy Development Board located at Anand, Gujarat (HQ) It is part of the Ministry of Animal Husbandry, Dairying and Fisheries It was established by Dr. Verghese Kurien, who is often referred to as "India's milkman".
- It was created to duplicate the popularity of Amul across the entire country of India.
- NDDB was established to help finance, support and assist producers-owned and controlled organizations in the dairy sector.
- The activities and programs are designed to enhance the farmer-owned institutions, and also helps with national policies designed to encourage the growth of such organizations.
- Its most significant success was Operation Flood which ran from the year 1970 until the year 1996 (26 months) and turned India into the world's largest producer of milk in the world.
- It's also known as "the" White Revolution. The Board has joined the more than one lakh dairy cooperatives into the "Anand" pattern.
- The village-level community is linked to the dairy federation of the state through a three-tier system.

- The NDDB is also working on its National Dairy Plan (NDP) the subsidiaries of NDDB comprise Mother Dairy, Indian Immunologicals Ltd., Hyderabad (IIL), Indian Dairy Machinery Company Ltd, Anand (IDMC) and NDDB Dairy Services. National Cooperative Development Corporation (NCDC)
- The organization is responsible for the planning the promotion, coordination, and funding of cooperative development programs at the national and international levels.
- It provides technical and financial assistance to cooperative institutions of farmers as well as other less developed sections of the agricultural and other rural economic activities.
- The NCDC's goal is to build and strengthen these institutions in order to allow them to better serve their members and maintain a steady growth in their earnings.
- A brief history of the authority public. All-India Rural Credit Survey Committee established by Government of India, which published its report in 1954. It recommended for it be suggested that the Government of India should set the foundation of a legal Corporation with the mission to lead the growth of rural economic activities apart from rural credit, within the sector of cooperatives.
- This is how the National Cooperative Development and Warehousing Board (NCDWB) was born into being in 1956.
- In 1963 the Warehousing process was separated. on March 14, 1963, the National Cooperative Development Corporation (NCDC) was created as a non-profit organization responsible to fulfill the post-harvest demands of farmers by forming cooperative societies.
- The NCDC Act changed several times following in the years 1974, 1973, and 1975, broadening its authority, constitution of management, its activities and sources of mobilization of funds.
- The NCDC Act was modified in 2002, which allowed the expansion of its programs to include other services, rural industries and non-farm-related sector activities within its scope of financing.
- The amendment also permitted NCDC to loan directly to cooperative societies, if security that is satisfactory to the Corporation is provided by the cooperatives who borrow.
- Mandates The duties of the Corporation will be to devise programs, finance and

promote them through cooperative societies to facilitate the processing, production marketing, storage, the export of and importation of products food products, poultry feed and other notified commodities; collection of, processing, marketing export and storage of small forest products; and the creation of the notified services.

- A list of the services offered by the public agency, with brief descriptions of the services offered according to the following: - advance loans or grant subsidy to state governments to finance cooperative societies to implement programs of cooperative development
- Provide money to State governments to finance cooperative societies to buy of food items, agricultural products livestock, poultry feed industrial items as well as notified commodities and services for Central Government.
- Central Government; plan and develop cooperative society programs for the provision of fertilizers, seeds, manures agricultural equipment and other items to enhance the production of agricultural products.
- Directly provide grants and loans to national cooperative societies as well as other cooperative societies whose objectives that extend beyond one state; offer loans to cooperative societies under the assurance of State Governments.
- In the event of cooperative societies located in Union Territories. Union Territories participate in the shares of the nationwide cooperative society, and other cooperative societies that have objectives which extend beyond one State.

Topic 24. THE MANDATORY REQUIREMENTS FOR PACKAGED COMMODITIES

Important for subject: Government Schemes

The Department of Consumer Affairs, Legal Metrology Division has issued a notice of that it is preparing a proposed amendment of the Legal Metrology (Packaged Commodities) Rules 2011.

- As stated in the notification, it has observed that many manufacturers/packagegers/importers do not clearly label necessary declarations or prime constituents on the front of packaged commodities, which are deemed essential to be disclosed in order to protect consumer interests.
- What are the compulsory provisions in the Legal Metrology (Packaged Commodities) Rules 2011?



- It is mandatory under the Legal Metrology (Packaged Commodities) Rules, 2011 to ensure a number of declarations, such as the name and address of the manufacturer/packer/importer, the country of origin, the common or generic name of the commodity, the net quantity, the month and year of manufacture, the Maximum Retail Price (MRP) and consumer care information.
- In order to promote a more consumer-friendly policy the pre-packaged goods must be inspected.
- In Rule 2(h) (h),"the "principal screen" is, with respect to a package, refers to the total area of a package which contains the information that is required of these rules, specifically that all information needs to be presented all in one place. the pre-printed data could be combined and displayed in one place , while the information on the internet in a different location.
- In addition the rule 9(1)(a) stipulates that the information on the package should be clear and visible.
- The consumer's right to be informed is not respected when crucial declarations are not clearly printed on the packaging.
- If there are several major product the rule 6(1)(b) stipulates"that ".....the names or the number of each product should be noted on the packaging."
- However, this rule is not applicable to electrical or mechanical products.
- Which are proposed changes?
- Since a variety of blends of cosmetics and food items are offered in the marketplace, key components must be identified on the product's packaging
- The Department of Consumer Affairs, Legal Metrology Division has recommended that at least two of the most important components should be listed on the front of the package as well as the brand's name.
- The manufacturers currently include the ingredients and nutritional information in the rear of their packaging.
- It is proposed that Section 6(1)(ba) specifies that if a product contains more than one constituent, the label on the front page of the packaging must include a list that includes two or more commodity's principal constituents, along with the brand's name.
- The declaration should also state the percentage or quantity of the USPs for the item

in the exact size font as the declaration for the USPs.

- However, electrical or mechanical products are not covered by this rule.

Topic 25. PRADHAN MANTRI TB MUKT BHARAT ABHIYAAN

Important for subject: Government schemes

Health Pradhan Mantri TB Mukta Bharat Abhiyaan is envisioned to connect all stakeholders in the community to assist those who are in need of TB treatment and speed up the pace of progress in the country toward TB elimination.

- Hon'ble President is also set to launch the Ni-kshay-Mitra initiative that is an essential part to the Abhiyaan.
- The Ni-kshayMitra portal is a way for donors to offer various ways of assistance to patients who are undergoing TB treatment.
- The three-pronged approach to support comprises nutritional, additional diagnostic and support for vocational needs.
- The donors, referred to as Ni-kshayMitras, can be many different stakeholders , ranging from elected representatives to corporations, political parties as well as NGOs and individuals.
- The event's goal is to draw attention to how important it is to take a social strategy that brings people of all backgrounds into the Jan Andolan movement to meet the goal of elimination of TB from the nation in 2025.
- Pradhan Mantri TB Mukta Bharat Abhiyaan is an important step in getting the support of the community towards an individualized health system for patients.

Topic 26. WORLD DAIRY SUMMIT 2022

Important for subject: Government Schemes

PM Modi calls upon the world's dairy industry leaders to acknowledge and support women dairy farmers during the World Dairy Summit 2022 at Greater Noida.

- India hosts the summit following an absence for 48 years.
- In that time the output of Indian milk has increased between 23 million tonnes by 1974 to 200 million tonnes today.
- The production of Indian milk is increasing at 6 more than the average global rate of two percent.
- India's per capita milk supply is among the best in the world.

- Co-operatives played a significant contribution to making India self-sufficient in the dairy industry.
- Women comprise around 70 percent of the dairy workforce and around 1/3rd of the workforce in cooperatives of dairy farmers.
- Major dairy sector schemes: Rashtriya Gokul Mission (RGM)-Department of Animal Husbandry and Dairy is working on Rashtriya Gokul Mission (RGM) with the goal of promoting the conserving and preserving indigenous bovine breeds, genetic improvement of bovine populations and increasing the production of milk and productivity of bovines, making the production of milk more profitable for the farmers.
- It also seeks to to breed multiplication farms based on a hub and spoke models and provides 50% capital subsidy is offered to eligible entrepreneurs.
- Dairy Processing and Infrastructure Development Fund (DIDF)-This program is currently in the process of being implemented to achieve the goal of creating or strengthening milk processing, value addition and chilling facilities.
- The scheme NABARD raises the funds from the market and then distributes cash to cooperatives that are dairy-based, with a 2.5 percent interest subventions via National Dairy Development Board and National Cooperative Development Corporation (NCDC).
- Helping Dairy Cooperatives and Farmer Producer Organizations that are involved in dairy production (SDCFPO)-it seeks to support those State Dairy Cooperative Federations by offering working capital loans that are flexible to ease the pressure caused by extremely negative markets or catastrophes.
- Additionally, it provides one-time assistance in the form interest subventions on working capital loans . This has been implemented from the fiscal year 2020-21.
- Livestock Health & Disease Control Programme (LHDCP)-The main goal is to enhance the health of animals through the implementation of prophylactic vaccinations against different animal and poultry diseases and poultry, capacity development, disease surveillance and strengthening the infrastructure for veterinary care.
- National Livestock Mission (NLM)-The focus of the program is the development of entrepreneurship and improving breeds in sheep, poultry piggery, goats and other

animals. It also includes fodder and feed development.

- The scheme is being implemented with the following three Sub-Missions the Sub-Mission for Breed Development of Livestock & Poultry Sub-Mission on Feed and Fodder Development Sub-Mission regarding extension and Innovation Animal Husbandry Infrastructure Development Fund (AHIDF) AHIDF is in the amount of approximately Rs. 15000 crore, to encourage the development of investments to establish dairy processing and value adding infrastructure.
- Additional 3% interest subvention is available to people who qualify for the credit provided under AHIDF.
- National Animal Disease Control Programme (NADCP) is a leading program to control Foot & Mouth Disease and Brucellosis through vaccination of all cattle, buffalo goat, sheep, and pigs for FMD and bovine female calves between 4 and 8 months old to prevent Brucellosis.
- Kisan Credit Card- For the first time, the KCC Scheme has been extended to all farmers working in the industry of animal husbandry such as dairy farmers.
- Nationwide Artificial Insemination Programme (NAIP) to provide free high-quality artificial insemination to farmers' doorsteps in 604 districts with less than 50 percent AI coverage.
- The introduction of Multipurpose Artificial Irregular Techs of Rural India (MAITRI)- to provide trained personnel for the purpose of providing artificial insemination on the doorsteps of farmers in rural areas across the entire States in India and Union Territories.

Topic 27. DENGUE VACCINE

Important for subject: Science & Technology

The Indian Immunologicals Limited (IIL) one of the top manufacturers of vaccines in India is granted permission to conduct a the first phase of the dengue vaccine trial.

- IIL is working on the development of the dengue vaccine, in collaboration with the American-based National Institute of Health (NIH).
- The virus is provided through the National Institute of Health.
- There are two more dengue vaccine candidates that are being created through Panacea Biotech Limited and Sanofi India Private Limited.

- Both have been granted permission to conduct clinical trials. Panacea Biotec Limited has completed Phase-1 and Phase-2 trials.
- Sanofi India Private Limited's vaccine has been accepted in the US. It has also begun conducting tests within India (Dengvaxia vaccine).
- Dengvaxia Vaccine: The vaccine CYD-TDV, also known as Dengvaxia, received approval from the US Food & Drug Administration in the year 2019, making it the first vaccine for dengue to get the approval of the FDA within the US.
- Dengvaxia is essentially a live, attenuated, dengue virus which must be administered to individuals of between the ages of 9 and 16 with a previous lab-confirmed dengue infections and reside in areas with high dengue risk.
- What is Dengue: Dengue is a vector-borne disease spread by being bitten by an infected female Aedes Aegypti mosquito.
- The mosquito can also transmit yellow fever, chikungunya and Zika infection. Aedes aegypti is a daytime swarmer.
- The most intense bite times begin early in the morning, and later in the evening, before dusk.
- There are four serotypes of the virus that cause dengue.
- They are referred to as DEN1 and DEN-2. They are also known as Den-3, den-4.
- The signs of the illness will manifest anytime between three and 14 days following the initial infection.
- The symptoms are high temperature, Headache, Vomiting, joint and muscle pains skin Rash.
- Dengue diagnosis is made through the use of a blood test.
- Dengue is not transmitted by direct transmission from one person to another.
- However, someone who is ill and suffering from dengue fever may be infected by other mosquitoes.
- The majority of cases occur in tropical regions across the globe, such as those in the Indian subcontinent, Southeast Asia, Southern China, Taiwan and Taiwan, the Pacific Islands, the Caribbean, Mexico, Africa, Central and South America.
- In the report of the National Center for Vector Borne Diseases Control (NCVBDC), 1,932,245 cases of dengue and death were recorded across the nation in the year 2000.
- WHO estimates that there are 39 million dengue virus-related infections each year,

out of which 9.6 percent have symptoms.

Topic 28. GOOD NEWS FOR FARMERS: ICRISAT USES X-RAY TO ASSESS PEANUTS' QUALITY

Important for subject: Science & Technology

Radiography using X-rays could be the best technology to use to evaluate farmers' products as per the study conducted by ICRISAT on the use of X-ray-based technology

- An innovative artificial intelligence-based algorithm to determine an accurate estimate of physical characteristics from X-ray radiographs of complete peanut pods.
- Advanced image processing algorithms that allow for virtual shelling are used to calculate shelling percentage the kernel number and masses.
- Virtual shelling' are being investigated for feature evaluation of different other crops like barley, rice, oats as well as pigeonpea, which is used to assess the value of other important traits for commercialization like milling recover.
- Researchers also employed this technique to test the viability of seed embryos. This is the right technology to evaluate farmers' in-field products, which is required from the International Committee for Food Value and Safety.
- It can also be useful for grain value chains when the time required to determine the economic value of grains through milling or threshing is a major obstacle.
- It also provides an accurate cost estimate for procurement for primary producers as well as the entire stakeholder group INTERNATIONAL CROPS INSTITUTE FOR THE SEMIARID TROPICS (ICRISAT) This International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) is an international institution that does research in agriculture to aid rural development.
- ICRISAT is an non-profit, non-political organisation which conducts research on agriculture for growth in the deserts of Asia and sub-Saharan Africa.
- It was formed in the year 1972 by a group of organisations whose members were the Ford and Rockefeller foundations.
- The charter was signed by Food and Agriculture Organization (FAO) as well as the United Nations Development Programme (UNDP) ICRISAT conducts research on five drought-resistant crops that are highly nutritious such as chickpeas, pigeonpeas, chickpe and pearl millet. Sorghum and groundnut.

- Headquarter: Hyderabad, Telangana in India.

Topic 29. GPS-BASED TOLL SYSTEM IN PLACE OF FASTAG

Important for subject: Science & Technology

The government is planning to launch an automated toll system based on GPS instead of FASTag.

- National Highways Fee (Determination of rates and collection) Rules in 2008 have been modified to permit the collection of tolls determined by the distance traveled by the vehicle along the NH.
- It will allow smooth payment and movement of vehicles on national highways.
- It would also end the function of toll plazas all over the country.
- It could result in the reduction of toll fees because cars will only be charged according to the actual distance they travel instead of fixed fees similar to the toll plazas that are currently.
- It also will revoke local residential passes as well as other concessions for travel along highways.

How do GPS-based tolling works?

- It will require modifications in the Motor Vehicles Act to facilitate the new technology-based tolling.
- Automobiles must be equipped with a gadget that tracks its movement on highways.
- The highways are geofenced giving virtual lines of separation.
- If a vehicle crosses the toll road the highway software will track mobile devices that are entering or leaving a certain region, and a toll is charged according to the distance traveled to the exit point of the highway.
- The system will utilize GPS as well as radio frequency identification technology.
- Since the system is built on sensors, there's no need to go through toll stations.
- GPS tolling utilizes satellite-based navigation, and does not require any halting. Users must get their cars and themselves registered, as well as banks that can allow for the transfer of payments tolls.

Global Positioning System - GPS:

- GPS is a satellite-based navigation system which is used to determine the location of an object.

- It's an U.S.-owned service that provides users with navigation, positioning, as well as timing (PNT) services.
- It is a satellite network that offers service for military and civilian users.
- The civil service is accessible to everyone all over the world on a regular basis.
- The components of the GPS systems GPS is a system , and it is comprised of three elements that are Satellites, Ground Stations and receivers.
- Satellites function as stars in constellations. And we can pinpoint exactly where they are since they will always broadcast signals.
- Ground stations utilize the radar to ensure the satellites are indeed exactly where they appear to be.
- Receivers are piece of equipment that can be found in your smartphone or even in your car , and it is always looking for signals from satellites.
- The receiver determines how far they are from a few of them.
- When the receiver has calculated its distance using at least four satellites, it will know precisely where you are.

What is the process behind GPS function?

- There are at minimum four GPS satellites that are within the view of a receiver on surface of the earth.
- The transmitter GPS communicates information about its location and the time to the GPS receiver GPS at regular intervals.
- The signals that are transmitted to receiver devices are radio signals.
- If you can determine the difference in time that exists between the signal received from the GPS satellite and the signal the GPS receives the signal, that distance between GPS receiver and satellite can be determined using trilateration processes of the receiver.
- After the receiver calculates its distance using the four to five GPS satellites it is able to determine the precise position of the object.

Topic 30. DOLPHIN AND PORPOISE: FIRST TIME, AVIAN FLU IS SEEN IN CETACEANS

Important for subject: Science & Technology

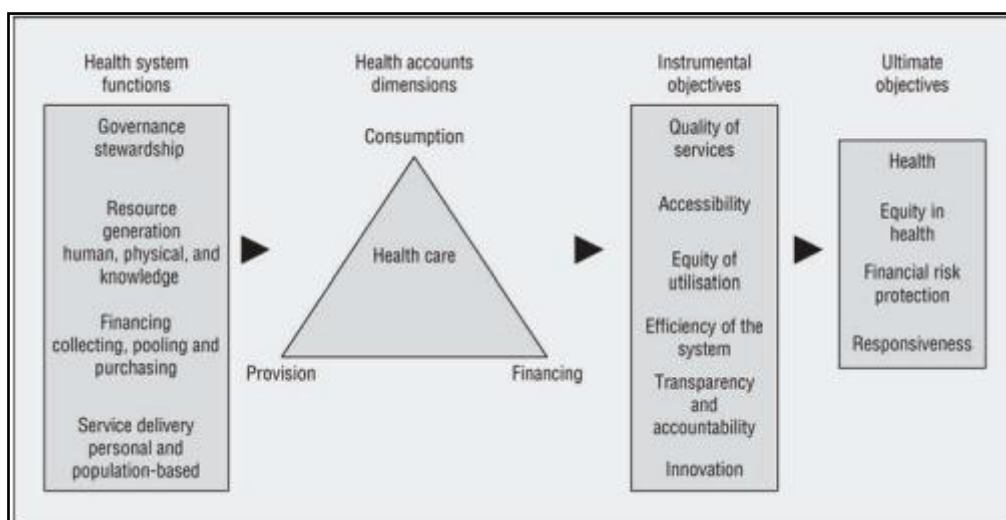
A dead bottlenose dolphin discovered in the Florida canal in spring was found to be positive for an extremely virulent strain bird flu, scientists announced on Wednesday.

- This particular strain of bird flu is called Eurasian H5N1.
- While experts emphasize that the risk for humans is very low, the spread the virus to other species could pose a risk to wildlife, and also provides the virus with the opportunity to adapt and mutate to mammals.
- In addition to birds, the virus is also present in bobcats and foxes as well as seals, and skunks.
- Cetacea also known as 'huge fish sea monster' is an infraorder that includes aquatic mammals, which includes whales, dolphins and porpoises.
- The most notable characteristics of them are their water-based lifestyle, their sleek body shape, and often big size and an exclusively carnivore diet.
- The majority of cetaceans are in marine habitats, a tiny percentage live in freshwater or brackish water.
- Cetaceans are extensively hunted to harvest their meats, bluebber, and oil by commercial enterprises.
- Even though there is a consensus that International Whaling Commission has agreed on stopping commercial whaling, a few countries continue to whale.
- Gangetic Dolphins Gangetic river dolphin in India is the official aquatic animal.
- It is a Schedule I animal under the Wild Life (Protection) Act 1972.
- It was declared as endangered through the International Union for Conservation of Nature (IUCN).
- The Ganges river dolphin is able to be found in freshwater, and generally hunted by emitting ultrasonic sound, that bounce off of prey species, including fish and allows their prey to "see" an image that they can visualize in their minds.
- They also are referred to as 'susu'. It is an effective indicator of the overall health of the river ecosystem.
- It was declared one of the National Aquatic Animal in 2009 in 2009 by the Government of India.

- The Gangetic river dolphin is among the four freshwater dolphin species that exist in the world.
- The remaining three rivers are inside the Yangtze river in China (now extinct) and The Indus river of Pakistan as well as the Amazon river in South America.
- The first in Asia and India, the National Dolphin Research Centre (NDRC) will be located on the banks of the Ganges within the premises that are part of Patna University, Bihar.
- Avian influenza Avian influenza (AI) is an extremely contagious virus that affects many species of birds that produce food (chickens turkeys, quails and guinea fowls, etc.) and also wild birds and pets. Sometimes, mammals, including humans, can be infected with avian influenza. The subtypes of avian influenza viruses comprise A(H5N1), A(H7N9) and A(H9N2).
- HPAI
- The (H5N1) virus is found primarily in birds, and is highly contagious in them.
- HPAI Asian H5N1 is particularly deadly for poultry.
- Preventive measures: strict biosecurity and proper hygiene are vital to protect against the spread of diseases.
- Eradication: When the infection is found by animals procedure of culling affected and contact animals is usually employed in order to quickly stop, contain and eliminate the infection.

Topic 31. NATIONAL HEALTH ACCOUNTS

Important for subject: Health Sector



The amount of government spending as a percentage of health spending total across the nation has been increasing during the last few years even though the total health expenditure has been decreasing as per the The National Health Account Estimates.

- The estimates for the National Health Accounts define the country's total spending on health care.
- Key Findings As per the estimates of the National Health Accounts for for 2018-19 The total health expenditure -- that is, the amount of money that is spent on healthcare by the public, individuals as well as private companies and external sources of funding has decreased from 9.9 percent of GDP to 3.2 5 percent over the course of five years, ending in 2018-19.
- The Union government's spending on healthcare fell down to 1.28 percent of gross domestic product (GDP) during 2018-19, compared to last year's 1.35 percent.
- The government's health plans made up 9.6 percent of total health expenses, opposed to 9 percent the year before.
- Out-of-pocket spending totaled 48.2 percent, a slight reduction from 48.8 percent in 2017-18.
- India's expenditure on out-of-pocket costs remains high contrasted with other countries in the area (Bhutan, Pakistan, Bangladesh, Thailand, etc.) according to the Global Health expenditure database (66 place from 189 nations).
- However, it's still lower when compared to other advanced countries. The cost of out-of-pocket expenditures have decreased significantly from 62.6 percent recorded in 2014-15.
- However, there isn't an reason to explain the dramatic decrease in expenditures out of pocket.
- In addition to government spending and those who pay out of pocket on health insurance, private insurance made up 6.6 percent of total health expenses, compared to 5.8 percent in the previous year.



Topic 32. GLOBAL PANDEMIC FUND TO OPEN FOR INVESTMENT PROPOSALS
IN NOVEMBER

Important for subject: Health Sector

A brand new fund for pandemic prevention, preparedness and intervention that is managed by the World Bank will invite investment proposals starting in November 2022, as according to the World Health Organization (WHO).

- The Financial Intermediary Fund (FIF) It was created to help financially support efforts in low and middle-income nations to prevent or control epidemics like COVID-19.
- The fund pooled the financial assistance from the G20 nations and a few other countries.
- Other than G20 countries The Bill & Melinda Gates Foundation and Wellcome Trust, the Rockefeller Foundation and Wellcome Trust have committed to supporting the initiative.
- The treasury also will combine the roles of institutions that are involved in research into pandemics for Support for complementary research. Enhance coordination among partners. Incentivize the country to invest more an advocacy platform keep the focus and focused attention at the highest level on strengthening the health systems

Topic 33. HOW DOES A RABIES VACCINE WORK?

Important for subject: Health Sector

A 12-year-old girl from Kerala from the disease, despite receiving multiple vaccinations of the vaccine has raised questions about the efficacy of the rabies vaccines available in India in addition to their access.

What is the way a rabies vaccination function?

- Rabies is a condition that causes by a class of viruses known as lyssa viruses. They are is found in a variety of mammals.
- The virus attacks nerve cells in the central nervous system, and can be fatal to the animal in the event that it succeeds in the infecting.
- Although a variety of animals, including crocodiles, cats and dogs could be carriers of the virus, the virus is most likely to be spread to humans through bites of an infected dog cat since they are the most commonly-used pets.

- Even though it could be fatal The virus can be fatal, but it's slow moving and it could take several weeks before the illness becomes fatal encephalitis that is why the administration of the vaccine even after being bit by a vicious animal is highly effective.
- An injection with immunoglobulin for rabies (rabies-antibodies for the fight against virus that originates either from horses or humans) and a four-week course of anti-rabies vaccination can almost guarantee the prevention of the spread of rabies.
- The first dose being administered within the day, as the immunoglobulin is followed through with vaccinations at the third 7th and 14th days.
- There are various other options including five shots, which includes an additional one at the end of 28th day , which is approved by the World Health Organization (WHO) that clinics might look into, depending upon the supply of vaccine.

How do you make the vaccine?

- The vaccine is comprised by an unactivated virus which is believed to trigger the body to create antibodies that neutralize the virus that is infected in case of infection.
- There are also test vaccines that contain genetically modified viruses.
- There is no one-shot vaccine against rabies which provides permanent immunity.
- There are two methods of administering the rabies vaccination. Onemethod, known as the post-exposure prophylaxis (PEP) is given to those who have been exposed through the bite of an animal that is believed to have been infected.
- The vaccines are administered in the muscles, or directly into the skin.
- It is also possible to give prior to time to people with a high likelihood of becoming infected for example, animal handlers, veterinarians, areas that have a high risk of rabies-related infections, via the process known as Pre Exposure Prevention (PrEP).
- The advantage of using a PrEP is that, if one gets the victim is bitten, there's no need for an immunoglobulin injection. two doses of the vaccine will be enough to protect you completely, in contrast to the four-course dose for PEP.
- However it is the case that the WHO doesn't endorse PrEP as a preventive method in general.

Can rabies vaccinations be easily obtained in India?

- As per the Health Ministry, there are at least six rabies vaccinations which have been approved by the Health Ministry for India.

- They all contain inactivated viruses comprised of chicken, duck or human cell cultures . They are labelled as safe, effective, and have a long-lasting immunity.
- Rabies vaccines can be obtained at no cost in dispensaries of the government but vaccines given in private clinics may cost as much as Rs500 for a dose.
- The WHO declares that India is an endemic rabidistan and is responsible the third of world's deaths.
- The exact burden of rabies in India is not yet fully understood however, based on the available data, it causes between 18,000 and 20,000 deaths per year.

What about vaccinations for animals?

- Since rabies treatment is a requirement for several shots of vaccine and immunoglobulin, adhering to the prescribed schedule can be difficult.
- The governments of countries in which rabies is prevalent have set goals frequently to eradicate the disease in this case, India has made a commitment to eliminate the disease by 2030.
- It is well-known that this method of elimination is dependent on vaccination for dogs.
- Just like humans, vaccination in animals does not guarantee immunity to the disease.
- Since dogs are thought to be to be the cause of 99% of all rabies-related infections among individuals, the government in its 2021 program, known as the 'National Action Plan for Rabies Elimination', aims to vaccinate at 70 percent of dogs within a specific geographic area every year every three years.
- As a result, a level of herd immunity can be expected eventually resulting in its elimination within eight years.
- Instead of inoculating all dogs and cats, which isn't feasible, the idea is to find "rabies hotspots" across the country, and then target these areas.

Topic 34. ARATTUPUZHA VELAYUDHA PANICKER***Important for subject: History***

The recently-released Malayalam film PathonpathamNoottandu ('Nineteenth Century').

- The story is based on the story of Arattupuzha Velayudha Panicker who was a social reformer from the Ezhava community in Kerala who lived during the 19th century.
- Arattupuzha Velayudha Panicker was also known as Kallaseril Velayuthan Panikker or Chekavar of Arattupuzha.
- It had been considered to be an Ezhava fighter who was fighting against the oppression of those in the higher castes.
- His birth was on January 7, 1825.
- The role of social Reforms In Kerala The anthropologists Filippo and Caroline Osella consider Velayudha Panicker to be a precursor to Sri Narayana Guru.
- Velayudhan was a scholar of Ayurveda, Astrology, Sanskrit and Kalripayattu As a remark, the Travancore King awarded him the title of Panickan and later changed to Panicker.
- He was taught Kathakali which is believed to be an Namboothiri Brahmin art. He founded the first Kathakali group called Kalisseri Kathakali Yoga with the assistance from Ambalapuzha Madhava Kurup.
- Panicker organized Achipudava Strike.
- It was done for Achipudava for women with lower castes who cover the part below the knee. He was awarded the award.
- He was also involved in Mookkuthy Chantha incidents in Pandalam.
- This was a permission given women from lower classes to wear gold jewelry Panicker had instructed all Channar women living in his region that they cover up their bodies and then he purchased and distributed upper-body cloths across all Avarna women who were in the Kayamkulam market.
- He went to Guruvayur temple dressed as the character of a Brahman and spent ten days learning the rituals of puja and installing temple gods.
- The year was 1852 when he erected an ancient temple in Mangalathu village.
- The founder of Edackadu Njaneshwaram Temple was Arattupuzha Velayudha Panicker.
- All tribes and castes were permitted to worship at the temple.
- Panicker constructed another temple in Cheruvaranam in 1853.

- Panicker also set up an educational institution and library at Arattupuzha. In 1874, he was murdered on an excursion on a boat by an upper class group of people who were able to attack him from behind in the dark of the night.
- Community Hall in memory of Arattupuzha Velayudha Panicker is situated in Mangalam (Alappuzha).
- Arattupuzha Velayudha Panicker Research Foundation and Cultural Centre is also situated at Mangalam.

Topic 35. ACHARYA VINOBA BHAVE

Important for subject: History

Premier Minister Shri Narendra Modi has paid tribute to Acharya Vinoba Bhave during his Jayanti.

- Vinayak Narahari also known as Vinoba Bhave (11 September 1895 until 15 Nov. 1982) was one of the Indian advocate for nonviolence as well as human rights.
- He is known as to be a National Teacher of India and the spiritual successor to Mahatma Gandhi.
- Participation in Freedom Struggle Association with Mahatma Gandhi: Influenced by the likes by Mahatma Gandhi, Vinoba too was actively involved with the Indian struggle for freedom.
- He was a participant in various programs of non-cooperation, and in particular the request to use Swadeshi products instead of imported goods from abroad.
- He began spinning the wheel, which was churning out Khadi. He advised others to do the same and led to massive manufacturing of Khadi.
- Prison time In 1932, when they accused Vinoba Bhave of conspiring against the British rule The government sentenced him to prison for six months. He was sentenced to Dhulia.
- Then, he taught his fellow prisoners about the various important aspects for the subjects of the 'Bhagwad Gita' in Marathi.
- All of the lectures delivered to him about Gita in Dhulia prison were compiled and then published as an ebook.
- Individual Satyagraha Mahatma Gandhi 5 October 1940 presented Bhave in the country with an official statement.

- Gandhi was also selected to be the very first individual Satyagrahi (an Individual who is standing to defend Truth rather than a collective decision) from Gandhi himself.
- Quit India Movement: Bhave also took part as a participant in Quit India Movement
- Social Work Vinoba Bhave worked tirelessly towards ending social problems like inequality. Inspired by the example that were set by Gandhi and his guru, he joined the cause of the people his guru affectionately described as Harijans.
- His goal was to create the type of society Gandhi had imagined for the context of an Independent India.
- He came up with "Sarvodaya" as a term. Sarvodaya in the name of Gandhi which simply refers to "Progress For All".
- The Sarvodaya movement was led by him and established a variety of programs in the 1950s. The most notable of which was the Bhoodan Movement.
- The year was 1951. Vinoba Bhave started his peace-walk on foot in the region that was ravaged by violence Telangana.
- The 18th of April in 1951 the Harijans of the village of Pochampalli demanded that he give them around an 80-acre plot of property so that they could make a decent living.
- Vinoba pleaded with the owners from the village step forward to help the Harijans.
- Then, to everyone's surprise to everyone's delight, a landlord appeared and offered to lease the needed property.
- This incident opened a brand new chapter to the story of non-violence and sacrifices.
- It marked the beginning of Bhoodan (Gift of the Land) movement.
- The trek lasted for 13 years. Vinoba also travelled across the country, covering a complete journey in 58741 Km.
- He was able to collect approximately four million acres of which 1.3 million were distributed to the poor farmers who had no land.
- The movement was met with admiration from around the globe and was praised for being the first type of experiment to promote an active social justice movement.
- **NaiTalim:** Gandhi's disciple Vinobha Bhave, who was Gandhi's disciple, developed the concept to develop the concept of NaiTalim to further serve as a method to transform society: "The crux of NaiTalim lies in the overcoming of barriers between teaching and learning as well as between work and knowledge".
- NaiTalim, also known as basic education, refers to a guiding principle which declares



that work and knowledge are not two distinct things.

- Mahatma Gandhi advocated an educational curriculum that had the same name, based on this pedagogical basis Literary Work Among the books he wrote include Swarajya Sastra, Geeta Pravachane, Teesri Shakti or The Third Power The Gita is was translated to Marathi the language of his, with Geetai as the name. Geetai He was a guest for a time in Gandhi's Sabarmati Ashram in a cottage named after him "Vinoba Kutir".
- They eventually were published in the form of a book, to be known as Talks on the Gita. Brahma Vidya Mandir It is the Brahma Vidya Mandir was one of the Ashrams that Bhabe invented.
- It is a tiny community for women , which was established in order to help women be self-sufficient and peaceful in the community.
- Award Vinoba Bhabe was the first international person to receive the Ramon Magsaysay Award in 1958.
- He was presented with the Bharat Ratna posthumously in 1983.

Topic 36. DARA SHIKOH

Important for subject: History

Shri Jagdeep Dhankhar, has said today that the spirit of mutual respect was demonstrated by Indian Kings too, beginning with The legendary Asoka through the Crown Prince Dara Shikoh.

- Dara Shikoh, also known as Dara Shukoh, was the oldest son and the heir-apparent to the Mughal Emperor Shah Jahan.
- Dara was designated with the title Padshahzada-i-Buzurg Martaba and was favoured as a successor by his father and his elder sister, Princess Jahanara Begum.
- The man was an advocate for the interfaith dialogue, philosopher artist poet, translator, architect and administrator.
- Persian was Dara's first language However, he also studied Hindi, Arabic and later Sanskrit.
- Dara Shikoh's awe-inspiring Majma-ul- (which is a reference to the 'Confluence of Two Oceans') has been instrumental in creating a stronger bond between the people of India.

- The Confluence of the Two Seas (Majma-ul-Bahrain) that advocates for the harmony between Sufi theology and Sufi philosophy in Islam along with Vedanta philosophy within Hinduism.
- A brilliant, proficient poet and Sanskrit student, Dara Shikoh studied Sufi and Vedic philosophy extensively.
- Translated the Upanishads along with other important work out of Sanskrit in Persian.
- He believed of the fact that Upanishads are known as 'Al-Kitab AlMaknoun' in the (The Hidden book-Upanishads).
- His translation is commonly referred to as Sirr-iAkbar ("The Greatest Mystery").
- A famous supporter of arts and culture, Dara ordered for the collection of some exquisite artworks into an album that has become famous under the title Dara Shikhoh Album. Dara Shikhoh Album.
- Dara Shikoh then formed a relationship to the 7th Sikh Guru, Guru Har Rai.
- A passionate patron of art, the great patron was more attracted to the mysticism and philosophy rather than pursuits in the military.
- Dara Shikoh was also believed to be responsible for the commissioning of a number of stunning, yet to be found instances of Mughal architecture - including the burial place of his beloved wife Nadira Begum located in Lahore as well as the Shrine of Mian Mir also located in Lahore as well as The Dara Shikoh Library situated in Delhi, the Akhun Mullah Shah mosque in Srinagar located in Kashmir along with the Pari Mahal palace in the garden (also located in Srinagar within Kashmir).

Topic 37. NATURAL RUBBER CULTIVATION

Important for subject: Environment

NATURAL RUBBER

RUBBER

A polymer made from latex - a milky white liquid emitted by certain plants when cuts are made on them.



1600 B.C.

Rubber is indigenous to the rainforests of South America and its earliest use dates back to as far as 1600 B.C.



SOUTH AMERICA

200 different plants

Close to 200 different plants can produce latex, but more than 99% of the world's natural rubber comes from the latex of the tree species *Hevea brasiliensis*, more commonly known as the rubber tree.



11.74 million hectares

of area under rubber cultivation in 2017



World's largest rubber producing countries


- 1) Thailand,
- 2) Indonesia,
- 3) Malaysia

Others are India, Vietnam, China, Philippines



93% of natural rubber

produced today originates from Asia.



40,000 products

made using natural rubber today: medical devices, surgical gloves, aircraft and car tyres, pacifiers, clothes, toys



71% of natural rubber

is consumed by the global tyre industry



Following a moderate recovery post-pandemic in the market, the cost of rubber that is natural (NR) has fallen to a record low of 150 rupees per kilogram (RSS Grade 4,) on the Indian

market.

- India is currently the fifth-largest producers of natural rubber. However, it is also the second-largest user of the material in the world.
- (About 40 percent of India's natural rubber consumption is fulfilled through imports)
A new report in the most recent report of the Rubber Board has forecast the production of natural rubber and use in India in 2022-23 to be 8,50 tonnes as well as 12, 90,000 tonnes.
- Natural rubber can be described as a natural polymer of isoprene, an organic chemical compound. Rubber is a cohering elastic solid derived from the latex of several of tropical trees, of which *Hevea brasiliensis*, the largest of them, is significant.
- Rubber trees have a long economic life span of about 32 years for plantations.
- Growing Rubber Trees The trees need well-drained , well-weathered and well-drained soils.
- The alluvial type, the lateritic type types, sedimentary types, as well as red soils that aren't lateritic are ideal for the development of these trees.
- A uniformly spread rainfall with at minimum 100 days of rain per year, and temperatures ranging from 20 to 34degC is the ideal conditions for the development in the *Hevea* rubber plant.
- A humidity level of 80 percent and 2000 hours of sun and no strong winds are essential to get the best results.

Distribution:

- First rubber plants in India were started in 1895 on the hills of Kerala.
- However, the rubber cultivation commercially was established in 1902.
- Kerala is the biggest supplier of natural rubber to India.
- Tamil Nadu, Karnataka, Tripura, Assam, Andaman and Nicobar, Goa etc are several other states that produce rubber.

Rubber Board:

- It was established by the Rubber Act of 1947 as well as the Rubber Rules 1956.
- Rubber Board is a statutory organization that is part of the Ministry of Commerce and Industry to oversee the development in the field of rubber in the country.
- The Head Office for the Board is situated in Kottayam within the State of Kerala.

Topic 38. ARUNACHAL VILLAGERS FIGHT LOSING BATTLE TO SAVE FOREST

Important for subject: Environment

The residents of Nyukmadong village claimed that Border Roads Organisation destroyed more than 90% out of their 36 square. km forest without consultation or compensation

- The WWF (World World Fund for Nature) declared the forest as a reserve forest for community use because of its abundance of diversity.
- A red listed Indian red panda is located in this area.
- The representatives of the community said that the loss of forest (for roads) has affected their sacred sites, locally known as "phu".
- Sela Pass The Sela Pass is a mountain pass with a high altitude located at the border between Tawang and West Kameng districts. Tawang as well as the West Kameng districts in the Indian state of Arunachal Pradesh.
- Sacred Groves Sacred groves are community protected forests, which typically have significant religious meaning for the protection of the community.
- In India there are more than one lakh sacred groves spread across diverse states that are known under various names such as Kaavu within Malayalam, Koyilkaadu in Tamil, Orans in Rajasthan, Devarakaadu in Karnataka and Sernas situated in Madhya Pradesh.
- Many rare and endangered species, as well as species with medicinal or economic significance are found in this area and make these Biodiversity Hotspots.
- They contain the gene pools of a number of extremely endangered species of plants.
- They are usually connected to religious beliefs. The the cutting down of trees in sacred groves is regarded as taboo.
- The sacred groves are legally protected as 'community reserves under the Wildlife (Protection) Amendment Act 2002.

Border Roads Organisation

- The Border Roads Organisation (BRO) is an executive road construction force in India that offers support to and is currently member of the Indian Armed Forces.
- BRO creates and maintains roads in India's border regions as well as friendly neighbouring countries.
- Staff members from the Border Roads Engineering Service (BRES) as well as



members of the General Reserve Engineer Force (GREF) make up the parent structure for the BRO.

- It is under the supervision by the Ministry of Defence.

Topic 39. PEOPLE DO NOT KNOW HOW TO SURVIVE WITHOUT INSECTS:
HUMAN DEVELOPMENT REPORT 2022

Important for subject: Governance

Indices Biodiversity loss and the extermination of over a million animals and plants which includes insects, could create a world in which humans are unable to live.

- This is in accordance with this report, which is the Human Development Report (HDR) 2021-22 that was released through the United Nations Development Programme (UNDP) September 8, 2022.
- It also said that humans did not know how to survive in a world that was not populated by the number of insects.
- "Without the abundant supply of insects pollinating our soil, we are faced with the daunting task of growing food as well as other agricultural products on a large size," the report read.
- It was noted that human societies as well as ecological systems were influenced by each other.
- The rapidity at which human influence was increasing due to the Anthropocene was unimaginable.
- The book published in 2017 Insect Biodiversity: Science and Society declares that insects are vital because of their diversity environmental impact and influence on human health, agriculture and natural resources.
- Insects are the bio-basis for the terrestrial ecosystems in general.
- They use nutrients to cycle and pollinate plants. They also disperse seeds, help maintain soil fertility and structure and control the population of other organisms, and are the majority of food sources for all taxa.
- However, at present they all, starting with to the introduction of chlorofluorocarbons, to nuclear proliferation and DDT are stacked over each other which have acted in unpredictably different ways.

Topic 40. INDIA SLIPS 2 PLACES ON HDI AS COVID-19 REVERSES GLOBAL GAINS

Important for subject: Governance

Indices Human Development Report (HDR) It is published from the United Nations Development Program (UNDP).

- Human Development Index Based on three basic dimensions of human Development
A healthy and long life, access to information and a adequate standard of living.
- The other indices which form the component of the Report are:
 1. Indifference-adjusted Human Development Index (IHDI),
 2. Gender Development Index (GDI),
 3. Gender Inequality Index (GII) and
 4. Multidimensional Poverty Index (MPI).
- United Nations Development Programme (UNDP) The United Nations Development Programme (UNDP) is an integral part of the United Nations' global development network, with its headquarters within New York City.
- UNDP promotes change and connects countries with expertise, resources and knowledge to assist people in building an ideal life.
- UNDP is completely funded by contributions of members nations.
- The organization is present across 177 countries. In each, it collaborates with local governments to address development challenges and build local capacities.
- In September 2015 world leaders adopted the 2030 Agenda for Sustainable Development to eradicate poverty, safeguard the environment, and ensure everyone enjoys peace and prosperity.
- UNDP works to build new frameworks to promote development, the reduction of risks of disasters, and climate change, by assisting nations' efforts to reach their Sustainable Development Goals, or Global Goals, which will set the direction for global development goals through 2030.
- The highlights of HDI 2022 India slipped two places to be ranked 132 out of 191 nations in the most recent Human Development Index (HDI) report issued in the United Nations Development Programme (UNDP). In the year 2020, India was placed at 130.
- The problem is that UNDP states that the results do not compare as they were in 2020



the HDI was calculated for 189 countries , whereas this year, it's 191 countries.

- It also noted that nine of 10 countries have experienced a decline in human progress in the context of numerous crises such as Covid-19 as well as the Ukraine conflict and climate change.
- However it recognized that in comparison to the year 2019, the the human development of people is less in India.
- HDI evaluates progress in three crucial aspects of human growth - longevity and health access to education, an adequate standard of living.
- It is calculated by using four indicators: life age at birth, the average years of schooling, expected duration of schooling, as well as the Gross National Income (GNI) per each person.
- Life expectancy is declining according to UNDP In India's case the decrease of HDI of 0.645 from 2019 and 0.633 in 2021 is explained by the fact that life expectancy is declining between 69.7 and 67.2 years.
- Numerous studies have suggested that this was because of Covid-19. The expected school years in India are 11.9 years, and the median years of schooling is 6.7 years.
- In India, the GNI per capita is \$6,590. Based on Shoko Noda UNDP Resident Representative of India, "Compared to 2019 Human development impacts from inequality are less.
- India is bridging the development gap between women and men faster than anywhere else in the world.
- This development also comes at a lesser environmental cost."
- The report noted the India's HDI value has steadily increased with the world average since 1990, which indicates an increase in speed than the average global rate of human development.
- This is due to decisions made by the government in the course of time, such as investing in health and education according to the report.
- The report also noted that in the past 10 years, India has lifted a astonishing 271 million people out of multidimensional poverty.

Topic 41. NCERT APPROACHES UGC FOR 'DEEMED UNIVERSITY' STATUS***Important for subject: Education***

With the proposal by the government of creating an National Council of Educational Research and Training (NCERT) as an "institute that is of national significance" in the background The NCERT is now fighting for a different label that is considered to be a university.

- The UGC is the authority that teaches higher education while NCERT is the authority for academics to oversee school-based education.
- Institute of national significance Institute of National Importance (INI) is a designation that can be granted to an outstanding educational institution of public high school in India through an act of the Parliament of India, an institution that "serves as a key actor in the creation of highly skilled individuals within the designated region of the country or state".
- In the year 2021 (July 2021) there were 161 institutes of national Importance in different Acts of Parliament.
- These INIs comprise 23 IITs, 15 AIIMSs 20 IIMs 30 NITs, 25, IITs, seven IISERs and 7 NIPERS, five NIDs and three SPAs 5 Central Universities, 4 Medical research institutes, as well as 14 other institutes that specialize in their field.
- Benefits of the Institute of National Importance. Functional autonomy to improve efficiency, quality and accountability.
- More funding means a higher quality of education as well as better research facilities.
- Faster decision-making capabilities. A minimal amount of interference from the executive.
- They might be able to give more scholarships for students.
- They are also able to provide more training facilities, sports facilities and other services. NCERT It is the National Council of Educational Research and Training (NCERT) is an independent organization established in 1961 by the Government of India to assist and guide government officials from the Central and State governments regarding policies and programs that promote quality improvement in the school curriculum.
- Executive Committee (EC) is the most powerful decision-making body within NCERT and is headed by the Education Minister.

- The primary goals that are the primary focus of NCERT and its divisions are to carry out the promotion and coordination of research in the field of school education.
- They also publish books, models, materials such as newsletters, journals, and newsletters.
- It also creates instructional kits, digital material and more. provide pre-service and in-service education of teachers.
- Develop and disseminate cutting-edge educational methods and methods.
- They also collaborate and network with state education departments such as universities, NGOs, along with other schools of education.
- As a clearinghouse of ideas and data in areas that concern school education and function as a central organization to help achieve the goals in the direction of Universalization of Elementary Education.
- Additionally, NCERT is an implementation agency for cultural exchange programs with other countries in the area of education for children.
- Deemed University The status of deemed-to-be-university is awarded in accordance with the Section 3 of the University Grants Commission (UGC) Act, 1956.
- An Institution of Higher Education, other than universities, working at a very high standard in a specific area of study, can be declared by the Central Government on the advice of the UGC as an Institution 'deemed-to-be-university'.
- Institutions that are 'deemed-to-be-university' enjoy academic status and privileges of a university.

Topic 42. ALLOW HT BT COTTON TO KEEP TABS ON SPURIOUS SEEDS, SAVE FARMERS: SEED FIRMS

Important for subject: Agriculture

The members of the National Seed Association of India (NSAI) have stated that it is necessary to introduce a uniform system for seed licensing in the country through an one-country, one-seed policy.

- NSSAI executive director said the executive of NSSAI said that Herbicide Tolerant Cotton (Ht Cotton) has been tested in field trials.
- It might be quickly monitored for release to the environment in order to ensure the quality of legally recognized Ht cotton may be controlled by the existing Seed

(Control) Order.

- Herbicide Tolerant Bt (HTBt) Cotton:
- The HTBt cotton variation adds an additional layer of modifications which makes the plant insensitive towards the herbicide glyphosate however, it hasn't been accepted by the regulators.
- HtBt Cotton involves the addition of a gene called 'Cp4 Epsps (from a different soil bacterium), Agrobacterium tumefaciens to make it resistant to herbicides.
- There are concerns about glyphosate's carcinogenic effect in addition to the uncontrolled spreading of resistance to herbicides to adjacent plants by pollination, which results in the creation of many superweeds.
- Since it's not approved from the Genetic Engineering Appraisal Committee (GEAC) The sale of genetically modified products is illegal. It is carried out within Indian markets.
- Genetic Engineering Appraisal Committee (GEAC) GEAC is apex body of the Ministry of Environment, Forests and Climate Change to regulate production of, the use export, import and storage of dangerous micro-organisms, genetically engineered organisms (GMOs) as well as cells within the country.
- It is also accountable for the technical approval of all plans for the publication of GMOs and other products, including field tests.
- GEAC is headed by the Secretary Special/Additional of MoEF&CC and is co-chaired by an employee of the Department of Biotechnology (DBT).
- National Seed Association of India
- The National Seed Association of India, (NSAI), the highest-ranking organization representing all aspects of the Indian Seed Industry, continues to try to satisfy all the needs of farmers by identifying their needs and implementing research strategies to solve problems.
- The mission of NSAI is to develop "A vibrant, innovative international competitive, research-based industry that produces high-performance, high-quality seeds and plant materials that will benefit farmers and help to sustainably grow the industry in Indian Agriculture".
- The Indian Seed Congress, the annual gathering held by NSAI has become the most anticipated event to showcase the latest trends and opinions in those in the Seed

Industry sector.

- It will also allow participants to voice their concerns, discuss the latest technological advancements and barriers in the way of technological development and implementation and showcase the latest product lines as well as services and build a network to improve business development.
 - **Objectives:** To establish a regulatory environment for the seed industry facilitate better communication and potential business opportunities for our stakeholders.
 - To organize meetings and discussions between the private and public sectors to talk about common concerns In order to assist in the development of a Public Private Partnership
-

PIONEER ACADEMY

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DADAR



DADAR Address :
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ANDHERI



ANDHERI Address :
3rd Flr., Syndicate Chamber, Above Vaibhav Restaurant, Next to Better Home Hotel, Opp. Andheri (E) - 400 601
Mob : 84518 35873 / 70302 92316

KALYAN



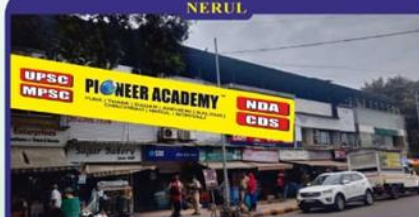
KALYAN Address:
2nd Flr., 2, Suyash Plaza, Opp. Railway Station, Near Deepak Hotel, Kalyan (W) - 421 301
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