

WEEKLY CURRENT AFFAIRS MAGAZINE for



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

**AUGUST-VOL-I-2021**

1 August to 7 August



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*Success is born of action...*

## **Topic 1. INDIA WILL TAKE OVER THE PRESIDENCY OF THE UNITED NATIONS SECURITY COUNCIL (UNSC)**

### ***Importance for Prelims: International Relations***

India can take over the Presidency of the world organization SC (UNSC) on August 1 and is ready to host signature events in 3 major areas of maritime security, peacekeeping, and scheme throughout the month.

- The SC was established by the United Nations Charter in 1945.
- It is one in every of the six principal organs of the United Nations.
- The alternative five organs of the United Nations are—the General Assembly, the TC, the Economic and Social Council, the International Court of Justice, and also the Secretariat.
- Its primary responsibility is to work to maintain international peace and The council has 15 members: the five permanent members and 10 non-permanent members elected for a two-year term.
- The five permanent members are the United States, the Russian Federation, France, China, and the United Kingdom. • Each member of the Security Council has one vote.
- Decisions of the protection Council on matters are created by AN affirmative vote of 9 members together with the concordant votes of the permanent members.
- A “No” vote from one of the five permanent member’s blocks the passage of the resolution.
- Any member of the international organization that isn't a member of the safety Council might participate, while not voting, within the discussion of any question brought before the safety Council whenever the latter considers that the interests of that member area unit especially affected.
- The council’s presidency could be a capability that rotates monthly among its fifteen members.

- The council is headquartered at New York.
- Non-permanent member of the Security Council The UNSC is composed of 15 members: five permanent members, and 10 non-permanent members who are elected by the General Assembly.
- The non-permanent members are elective for biennial terms — therefore each year, the final Assembly elects **5** non-permanent members out of the whole ten.
- These ten seats square measure distributed among the regions of the world: 5 seats for African and Asian countries; one for Japanese European countries; 2 for occupier and Caribbean countries; and 2 for Western European and alternative Countries.
- India has earlier been a non-permanent member of the protection Council in 1950-51, 1967-68, 1972-73, 1977-78, 1984-85, 1991-92 and 2011-12.
- Even a rustic has been supported by its cluster, it still must secure the votes of common fraction of the members gift and vote at the overall Assembly session— that could be a minimum of 129 votes, if all 193 member states participate.



## **Topic 2. THE FOOD AND AGRICULTURE ORGANIZATION WARNS HUNGER HOTSPOTS**

### ***Importance for Prelims: International Relations***

Hunger is anticipated to rise in 23 world hotspots within the next three months with the very best alerts for “catastrophic” things in Ethiopia’s embattled Tigray region, southern Madagascar, Yemen, South Sudan and northern Federal Republic of Nigeria, two U.N agencies warned.

- According to a brand new report of UN agency and World food program Hunger Hotspots.
- Hunger is predicted to rise within the next three months with a harmful state of affairs in Abyssinia embattled with Tigray, Madagascar, Yemen, South Sudan, and Northern African country The Food and Agriculture Organization The Food and Agriculture Organization of the international organization (FAO) could be a specialised agency of the international organization that leads international efforts to defeat hunger and improve nutrition and food security.
- Its Latin locution, fiat panis, interprets to “let there be bread”.
- It was based in 1945.
- It completed seventy five years of service to humanity on sixteenth October 2020.
- The United Nations agency is headquartered in Rome, Italy.
- Composed of 197 member states, the United Nations agency is ruled by a biennial conference representing every member country and therefore the world organisation, that elects a 49- member council.
- Initiatives World Food Summits square measure convened by the Food and Agriculture Organization of the United Nations.
- The initial food summit, the “World Food Conference”, came about in

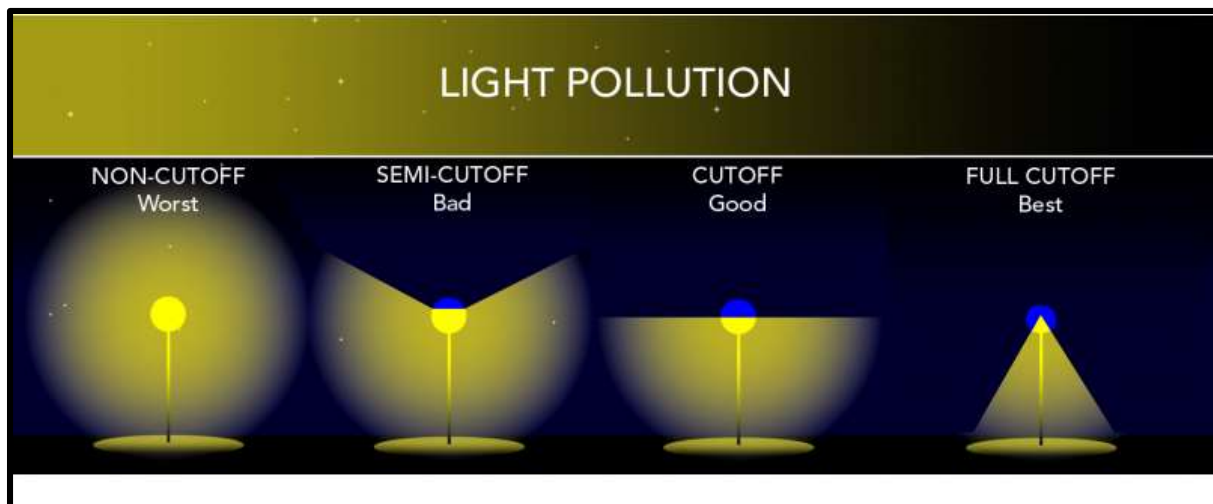
Rome in 1974.

- Grammar Check Re-write Again
- The International Plant Protection Convention (IPPC) may be a 1951 multipartite pact overseen by the world organisation Food and Agriculture Organization.
- The planet Food Programme The World Food Programme is that the food-assistance branch of the United Nations and therefore the world's largest humanitarian organization targeted on hunger and food security.
- WFP is headquartered in Rome, Italy.
- It is ruled by AN government Board, that consists of thirty six member states.
- It is headed by AN administrator, World Health Organization is appointed together by the United Nations Secretary-General and therefore the Director-General of the Food and Agriculture Organization of the United Nations.
- The Executive Director is appointed for fixed five-year terms.
- The WFP operations are funded by voluntary donations from world governments, corporations and private donors.
- WFP food aid is additionally directed to fight matter deficiencies, cut back kid mortality, improve maternal health, and combat malady, together with HIV and AIDS.
- **Objectives of the World Food Programme:** Save lives and protect livelihoods in emergencies.
- Support food security and nutrition and (re)build livelihoods in fragile settings and following emergencies.
- Reduce risk and enable people, communities and countries to meet their own food and nutrition needs.

- Reduce under-nutrition and break the inter-generational cycle of hunger. Zero Hunger in 2030.

### **Topic 3. LIGHT POLLUTION**

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



Globally, nights are getting ever brighter. Increasing urbanisation and therefore the installation of latest streetlights, security floodlight and outside decorative lightweighting all contribute to growing light pollution.

- Dung beetles mechanism of dung pile They are found across southern Africa, India, collect dung from various animals, fashioning it into a ball.
- By rolling this ball away from the dung pile they need not share it with other insects.
- They leave the dung pile as quickly as possible, by using their internal compass to travel in a straight line away from it.
- Before rolling the dung away to a part wherever it will safely perforate the bottom, rest and feed, every beetle climbs on prime of its ball and performs a quick pirouette termed the orientation 'dance'.
- It scans the scene for features it can use to hold its course.

- Since it starts every night in unfamiliar with territory, the foremost reliable references square measure those within the sky that keep stable whereas the beetle maintains an equivalent heading.
- On starry nights, the Milky Way acts as these beetles' primary reference. once the beetles relied on artificial lights to navigate, all of them rolled towards them — varied beetles rolling within the same direction.
- Under natural conditions, they nearly always appear totally different directions. Rolling towards artificial lights makes them a lot of possible to encounter each other and fights could flee because the beetles attempt to steal every other's dung balls.
- Artificial light-weight is additionally a lot of possible to guide beetles into the concrete and asphalt regions of their immediate surroundings, wherever they'll realize themselves unable to poke into the bottom and bury their ball.
- Effect of sunshine pollution in scarabaeans the sunshine floods directly into the eyes of animals that square measure active at the hours of darkness and conjointly into the skies.
- There a proportion of it's redirected back down towards associate earthbound observer.
- This is known as 'skyglow', an omnipresent sheet of light across the night sky in and around cities that can block all but the very brightest stars from view.
- On a study of 'sky compass' of the nocturnal dung beetle, *Scarabaeus satyrus*, to compare orientation under pristine and light polluted skies.
- The study compared the dung-rolling performance of beetles therewith of beetles and therefore the findings ensure that beetles exposed to light-weight pollution each directly through the glare of bright artificial lights



and indirectly via skyglow that obscures the celebrities square measure forced to vary strategy.

- They abandon their sky compass and rely instead on earthbound artificial lights as beacons. Other species affected by light pollution Nocturnal ants use landmarks for outbound journeys, but need their sky compass when returning home.
- Migratory birds have a compass, with that they check latitude and direction, however use their sky compass to calibrate their compass to geographic North.
- In the worst case, animals that require the celebrities to search out their home or breeding site may never make it.
- But even with their backup systems, Brighter night skies could cause them to step by step deviate off beam, wasting energy and risking predator encounters.
- Solutions The simple solution is to reducing animals' experience of direct and indirect light pollution: turning off unnecessary lights at night.
- Where lights cannot be turned off, they can be shielded so that they do not shed light into the surrounding environment and sky.
- The International Dark-Skies Association has certified more than 130 'International Dark Sky Places', where artificial lighting has been adjusted to reduce skyglow and light trespass.
- However, nearly all are in developed countries in the northern hemisphere.
- Less-developed regions are often both species-rich and, currently, less light polluted, presenting an opportunity to invest in lighting solutions before animals there are seriously affected.

## **Topic 4. CONTROLLER GENERAL OF ACCOUNT**

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

Shri Deepak Das took charge as the new Controller General of Accounts here today. Shri Deepak Das is the 25 officer to hold the position of Controller General of Accounts (CGA)

- Controller General of Accounts (CGA), within the Department of Expenditure, Ministry of Finance, is that the Principal Accounting consultant to Government of Republic of India and is answerable for establishing and maintaining a technically sound Management method of accounting.
- The workplace of CGA prepares monthly and annual analysis of expenditure, revenues, borrowings and numerous commercial enterprise indicators for the Union Government.
- The Annual Appropriation Accounts (Civil) and Union Finance Accounts area unit submitted to Parliament beneath Article a hundred and fifty of the Constitution.
- Its statutory mandate {duties and functions} have been defined in the Allocation of Business Rules, 1961, which include: Defining general principles of government accounting {both state and union} and framing rules, manuals, forms etc.
- Reconciliation of Cash Balance of Union with RBI Overseeing of accounting functions. Administration of Central Treasury Rules Cadre Management of Group A {Civil servants} and Group B {Central Civil Account Offices} and matters related to accounts related group C and D staff.
- Disbursement of payments of Central Civil Pensioners; Freedom

Fighters; state supreme court Judges; Ex MPs and Ex-Presidents via Public Sector Banks.

- It is additionally liable for coordination and observance the progress of submission of corrective/remedial action taken notes (ATNs) on the recommendations contained publicly Accounts Committee's (PAC).
- reports likewise because the bourgeois & Auditor General (CAG) reports through its web-based Audit Para Monitoring System (APMS).

## **Topic 5. ASI BREATHES LIFE INTO 17TH CENTURY DUTCH CEMETERY**

### ***Importance for Prelims: History***

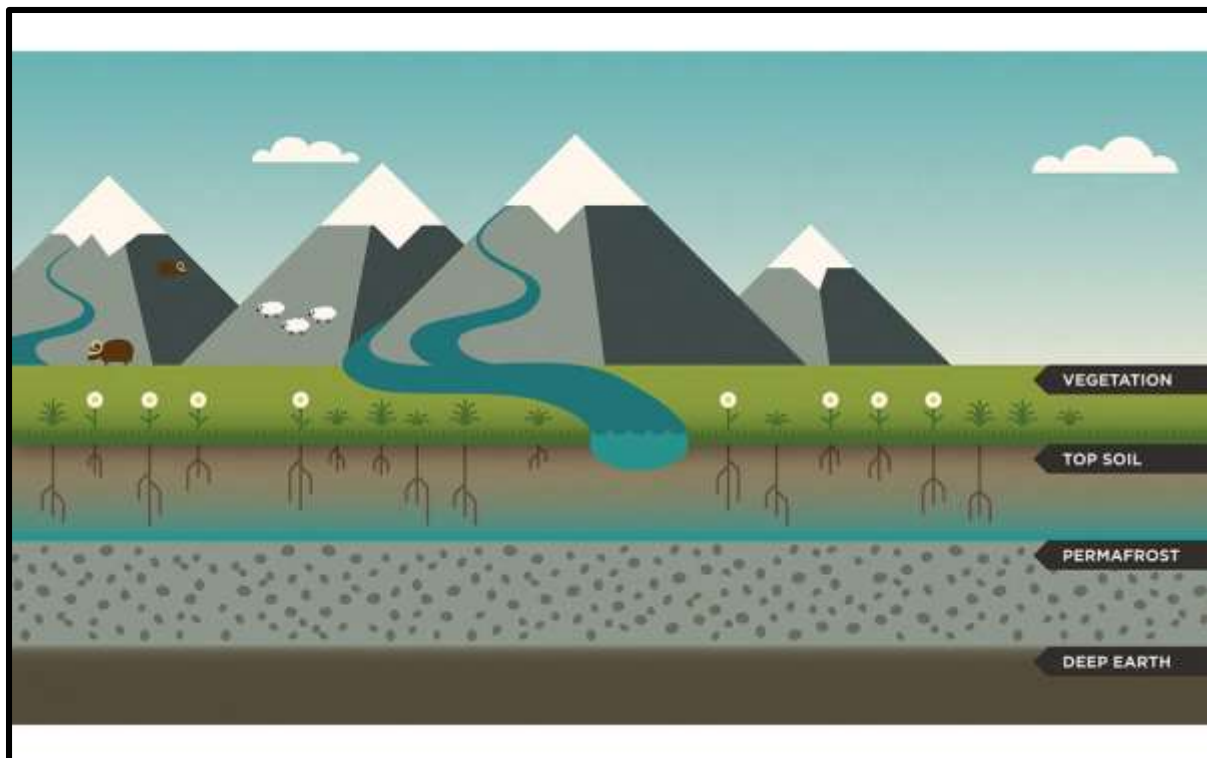
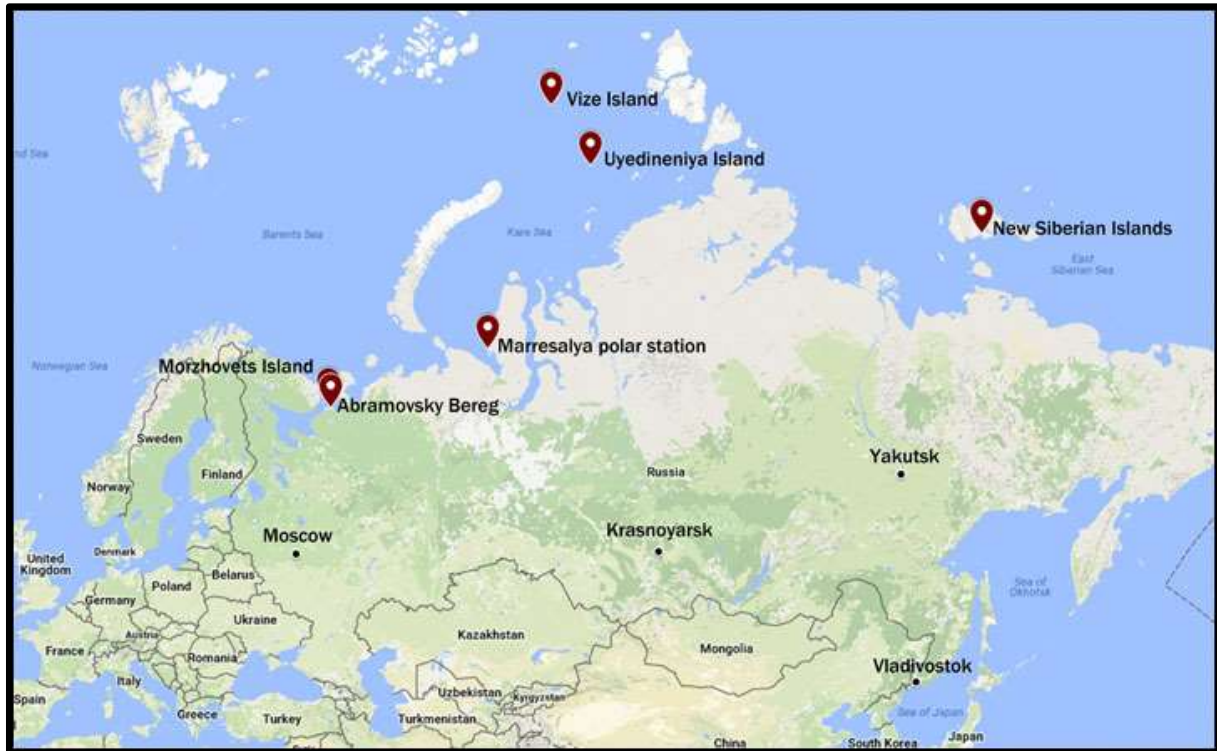
ASI breathes life into seventeenth century Dutch memorial park. As early as 1656 once the decline of the Portugese, the western bank of the watercourse Hooghly was occupied by the Dutch. For nearly 2 centuries, a Dutch settlement flourished at Chinsurah and began intra-Asian trade

- Vasco-da-Gama reached the port of Calicut in 1498 throughout the reign of King Zamorin (Hindu ruler of Calicut).
- Dutch Malay Archipelago Company was fashioned in AD 1602.
- Dutch were defeated by English at the Battle of Bedara in AD 1759.
- The English Malay Archipelago Company was fashioned in 1599 beneath a charter granted by Queen Elizabeth in 1600.
- Jahangir granted a farman to Captain William Hawkins allowing country to erect a industrial plant at Surat (1613).
- The Danish Malay Archipelago Company was fashioned in 1616.
- The Danish colony ‘Tranquebar’ was established on Southern Coromandel coast of Asian nation.
- The French Malay Archipelago Company was fashioned by sauce in 1664.
- The 1st French industrial plant was established at Surat by Francois Caron in 1668.
- It created a industrial plant at Masulipatnam was set-up in 1669.

- ❖ Portuguese (1498)
- ❖ English East India Company (1600)
- ❖ Dutch East India Company (1602)
- ❖ Danish East India Company (1616)
- ❖ French East India Company (1664)

## Topic 6. VANISHING PERMAFROST

*Importance for Prelims: Geography*



About thirteen of land, a vicinity on Daisetsu Mountains in Japan, calculable to



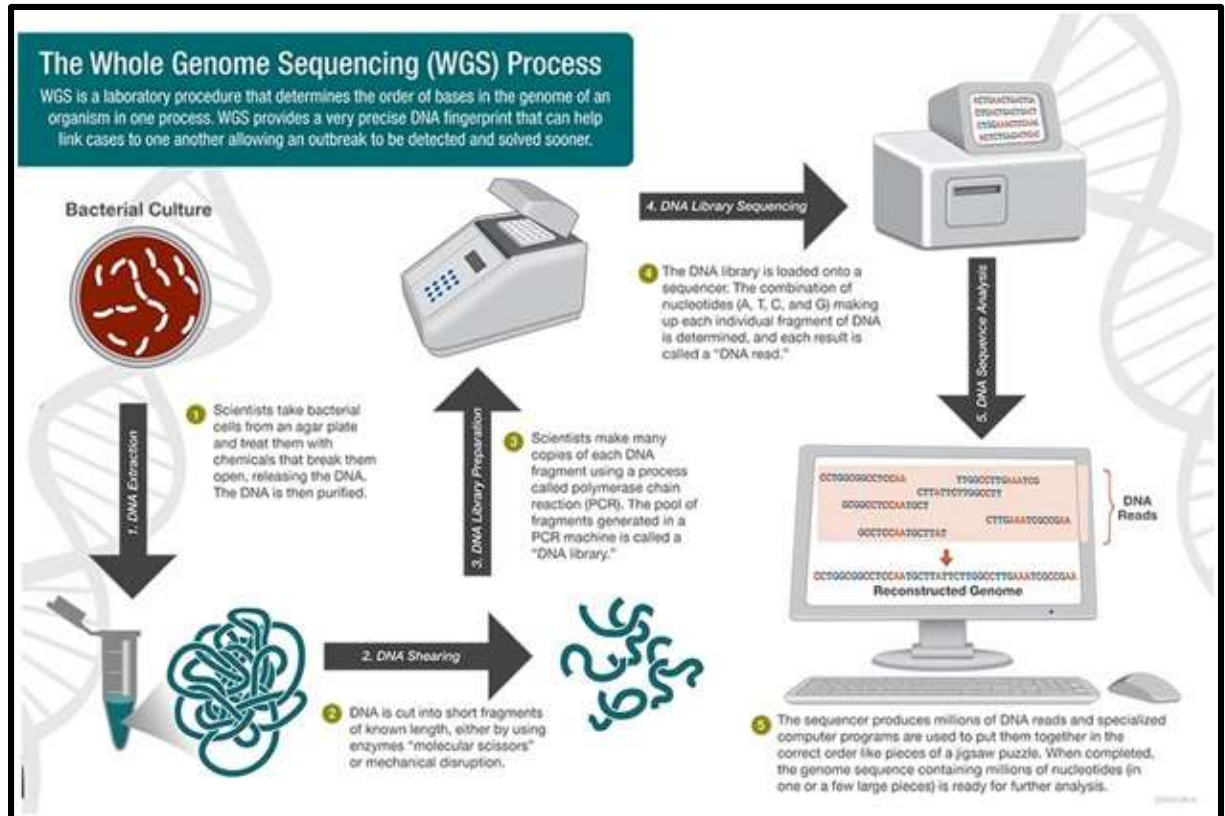
be close to one hundred fifty sq. kms. in 2010 is probably going to disappear 2100 underneath business as was common situation.

- About the permafrost: Areas with ground temperatures that remain below zero degrees celsius for more than two years are called permafrost.
- It consists of rock, sediments, sand, dead plant and animal matter, soil, and ranging degrees of ice and is believed to own fashioned throughout glacial periods chemical analysis many millennia.
- It is mainly found near the polar zones and regions with high mountains covering parts of Greenland, Alaska, Russia, Northern Canada, Siberia and Scandinavia.
- These are found in mountains as well as high latitude tundra and taiga regions.
- Its thickness reduces more and more towards the south and is littered with variety of alternative factors, together with the Earth's interior heat, snow and vegetation cowl, presence of water bodies, and topography.
- ground & world Warming: A study has shown that each one degree Centigrade rise in temperature will degrade up to thirty-nine 100000 sq. kilometers because of Permafrost thawing (the ice within the ground melts, jilting water and soil).
- Permafrost within the Arctic region stores giant amounts of methane **series**, that could be a greenhouse emission that contributes to global climate change.
- When ground is frozen, the organic carbon contained in it can't decompose, or rot away and as ground thaws the microbes within the soil decompose the dead organic matter (plants and animals) to supply methane series (CH<sub>4</sub>) and carbonic acid **gas** (CO<sub>2</sub>) that successively can increase the speed of world warming.

- This can end in a regeneration which will end in a climate catastrophe.

## **Topic 7. END TO END GENOME SEQUENCING**

### ***Importance for Prelims: Science***



On May 27, a preprint titled "The complete sequence of the human genome" was denote within the on-line repository bioRxiv.

- Analysisers at the National Human ordering Research Institute (NHGRI), a part of the National Institutes of Health (NIH), have made the primary end-to-end desoxyribonucleic acid sequence of a person's body.
- The effort is part of a broader initiative by the Telomere-to-Telomere (T2T) consortium, partially funded by NHGRI.
- The consortium aims to generate a complete reference sequence of the human genome.
- The T2T syndicate is continuous its efforts with the remaining human chromosomes, attending to generate a whole human ordering sequence in

2020.

- They have, in the process, discovered over a hundred new genes that code for proteins.
- The total size of the genome they have sequenced is close to 3.05 billion base pairs.
- In this study, researchers didn't sequence the x-chromosome from a traditional human cell. Instead, they used a special cell sort — one that has 2 identical X chromosomes. Such a cell provides additional DNA for sequencing than a male cell, that has solely one copy of associate degree x chromosome.
- It conjointly avoids sequence variations encountered once analyzing 2 X chromosomes of a typical feminine cell.

### Significance:

- The Human genome project announced in 1990 announced a complete human genome but about 15% of it was incomplete.
- Due to limitations of technology scientists were not able to piece together some of the repetitive parts of the human genome.
- This study adds 200 million base pairs to the last draft of the human genome that was published in 2013.
- The results come with the caveat that about 0.3% may still have errors, and that among the sex chromosomes, only the X chromosome has been sequenced.

### Concept:

- **What is special about protein-coding genes?**
- There are long stretches that do not seem to have a particular function.
- On the other hand, protein-coding sequences or protein-coding genes are DNA sequences that get transcribed on ribonucleic acid (RNA) as an intermediate step.

- These successively create the proteins accountable for varied functions like keeping the body healthy or deciding the color of the attention — proteins do the directions encoded within the genes.

### **Genome Sequencing:**

- Genome Sequencing means deciphering the exact order of base pairs in an individual.
- • In this explicit piece of deoxyribonucleic acid, AN purine (A) is followed by a G (G), that is followed by a T (T), that successively is followed by a C (C), another C (C), and so on.

### **Whole/End to end Genome Sequencing:**

- Whole-genome sequencing involves breaking the genome up into small pieces, sequencing the pieces, & reassembling the pieces into the full genome sequence.
- To know which genes of a person's DNA are "mutated" the whole genome sequencing is required.
- Whole ordering sequencing is that the method of crucial the entire polymer sequence of Associate in Nursing organism's ordering at one time. as a result of an individual's ordering is implausibly long, consisting of concerning vi billion bases, polymer sequencing machines cannot scan all the bases quickly.
- Instead, researchers chop the ordering into smaller items, then analyze every bit to yield sequences of a couple of hundred bases at a time.
- Those shorter polymer sequences should then be restore along.

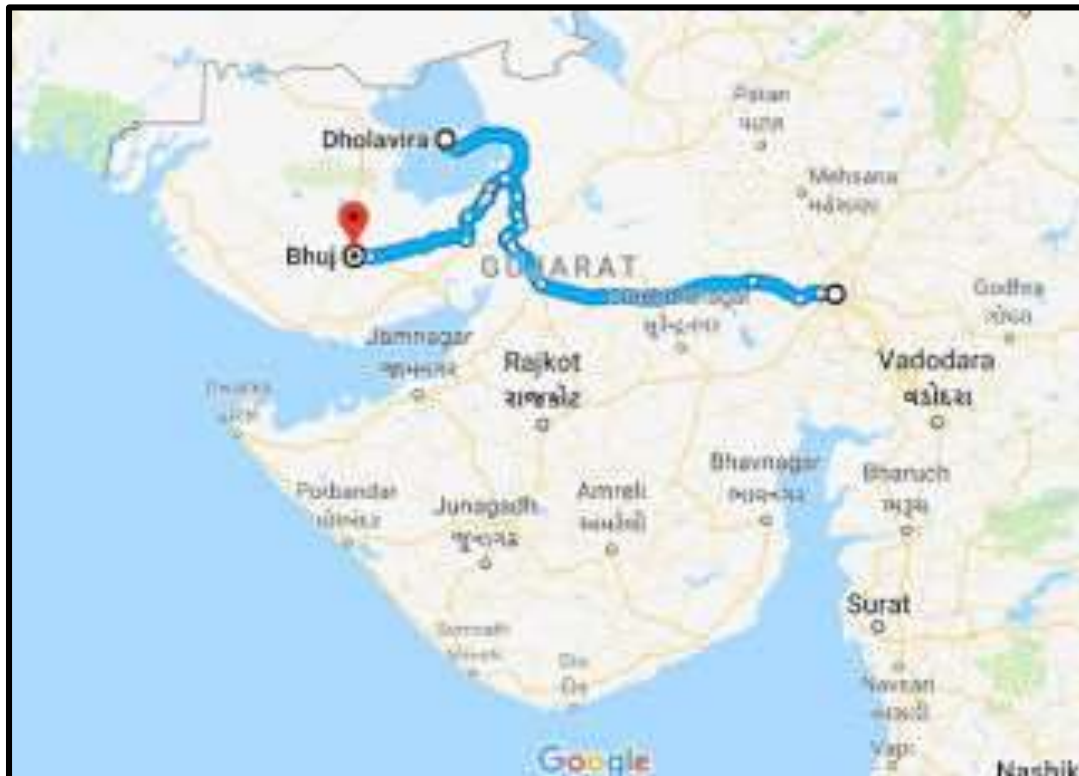
### **Advantages of End to end Genome Sequencing:**

- The ability to come up with actually complete sequences of chromosomes

and ordinations could be a technical achievement that may facilitate North American country gain a comprehensive understanding of genome operate and inform the employment of genomic data in treatment.

## **Topic 8. DHOLAVIRA**

### ***Importance for Prelims: Ancient History***



Recently, UN agency has declared the Harappan town of Dholavira in Gujarat as India's forty world heritage website. it's the primary website of Indus natural depression Civilisation (IVC) in India to be enclosed on the UN agency list.

### **About Dholavira:**

- It was discovered in 1968 by archaeologist Jagat Pati Joshi.
- It is one of the most remarkable and well-preserved urban settlements in South Asia.
- The ancient city of Dholavira is an archaeological site at Kachchh District, in the state of Gujarat, which dates from the 3 to mid-2



millennium BCE.

- It is located on Khadir Bet Island in the Kachchh Desert Wildlife Sanctuary in the Great Rann of Kachchh. Dholavira's location is on the Tropic of Cancer.
- Unlike other Harappan antecedent towns normally located near to rivers and perennial sources of water, the placement of Dholavira within the island of Khadir bet.
- This expedited internal in addition as external trade to the Magan (modern Sultanate of Oman peninsula) and Mesopotamian regions.
- After Mohen-jo-Daro, Harappa, Rakhigarhi, Ganweriwala, Dholavira is that the fifth largest metropolis of the Indus vale Civilization (IVC).
- The website contains a walled town, a castle, a ceremonial ground (cemetery), 2 seasonal streams and homes of various classes indicating a social hierarchy.
- The 3 stage settlement in Dholavira (citadel- middle city & lower town) was designed for various classes of residents and functions.
- There was a castle for a vital person, whereas the center city housed wealthy merchants and generals and also the lower city was for the folk.
- A series of reservoirs square measure found to the east and south of the stronghold. Dholavira consists of associate economical water management system with a cascading system of reservoirs.

### **Archeological Findings:**

- Artifacts that were found here include terracotta pottery, beads, gold and copper ornaments, seals, fish hooks, animal figurines, tools, urns, and some imported vessels.
- Remains of a copper smelter indicate Harappans, who lived in Dholavira, knew metallurgy.

- It was conjointly a hub of producing jewelry product of shells and semi-precious stones, like chalcedony and went to export timber. Not like graves at different IVC sites, no mortal remains of humans are discovered at Dholavira.
- Nine gates with distinctive styles together with a north gate that had a signboard, a primary of its kind found at Harappan web site.
- Funerary design that includes mound — subfigure structures just like the Buddhist Stupas.
- Decline of Dholavira: Dholavira entered a part of severe aridity because of global climate change and rivers like Saraswati desiccation.
- Due to a drought-like state of affairs, folks started migrating towards the Ganges River depression or towards south Gujarat and more on the far side in geographic region.

## Topic 9. e-RUPI

*Importance for Prelims: Economy*



making the primary step towards having a digital currency within the country, Prime Minister Narendra Modi can launch associate electronic voucher based mostly digital payment system “e-RUPI” weekday.

- e-RUPI is an electronic voucher based digital payment system.
- The platform has been developed by the National Payments Corporation of India (NPCI), Department of Financial Services, Ministry of Health and Family Welfare and the National Health Authority, will be a person-specific and purpose-specific payments system.
- e-RUPI could be a cashless and contactless digital payments medium, which can be delivered to mobile phones of beneficiaries in variety of associate degree SMS-string or a QR code.
- This can primarily be sort of a paid gift-voucher which will be

redeemable at specific acceptive centres with none credit or revolving credit, a mobile app or net banking. e-RUPI can connect the sponsors of the services with the beneficiaries and repair suppliers during a digital manner with none physical interface.

- The system has been built by NPCI on its UPI platform, and has on boarded banks that will be the issuing entities.
- Any corporate or government agency will have to approach the partner banks, which are both private and public-sector lenders, with the details of specific persons and the purpose for which payments have to be made.
- The beneficiaries are going to be known exploitation their mobile range and a voucher allotted by a bank to the service supplier within the name of a given person would solely be delivered to it person.

#### **How will these vouchers be issued?**

- The system has been built by NPCI on its UPI platform, and has on boarded banks that will be the issuing entities.
- Any company or administrative unit can got to approach the partner banks, that square measure each non-public and public-sector lenders, with the small print of specific persons and also the purpose that payments got to be created.
- The beneficiaries are going to be known victimization their mobile range and a voucher allotted by a bank to the service supplier within the name of a given person would solely be delivered to person.

#### **What are the use cases of e-RUPI?**

- e-RUPI is expected to ensure a leak-proof delivery of welfare services.
- It also can be used for delivering services beneath schemes meant

for providing medicine and organic process support beneath Mother and kid welfare schemes, TB obliteration programmes, medicine & medical specialty beneath schemes like Ayushman Asian nation Pradhan Mantri January Arogya Yojana, fertilizer subsidies etc.

- The government additionally aforementioned that even the non-public sector will leverage these digital vouchers as a part of their worker welfare and company social responsibility programmes.

### **How is it different from a digital currency?**

- e-RUPI continues to be backed by the present Indian rupee because the underlying quality and specificity of its purpose makes it completely different to a virtual currency and puts it nearer to a voucher-based payment system.

### **Are there global examples of a voucher-based welfare system?**

- In the North American country, there's the system of education vouchers or college vouchers, that may be a certificate of presidency funding for college students chosen for state-funded education to form a targeted delivery system.
- In addition to the North American country, the varsity voucher system has been utilized in many alternative countries like Republic of Colombia, Chile, Sweden, Hong Kong, etc.



## Topic 10. ASHWAGANDHA

*Importance for Prelims: Science and Technology*

### **Benefits of Ashwagandha**

1. Relieves anxiety.
2. Cures male infertility.
3. Reduce blood-sugar.
4. Reduce stress.
5. Boost memory.
6. Increase muscle mass.
7. Provide muscle strength.
8. Reduces inflammation.
9. Cures rheumatoid arthritis.
10. Improve brain function.

The Ministry of Ayush has collaborated with the U.K.'s London college of Hygiene and medical specialty (LSHTM) to conduct a study on 'Ashwagandha' for promoting recovery from COVID-19.

- All India Institute of piece of writing (AIIA), Associate in Nursing autonomous body beneath the Ministry of Ayush, and therefore the LSHTM recently signed a note of Understanding (MoU) to conduct clinical trials of 'Ashwagandha'.

- This is the first time the Ministry of Ayush has collaborated with a foreign institution to investigate its efficacy on COVID-19 patients.
- The study had been approved by the Medicines and Healthcare Products regulatory Agency (MHRA) and certified by the World Health Organization Good Manufacturing Practices (WHO-GMP).
- Ashwagandha (Withania somnifera), also known as Indian ginseng, is an important ancient plant, the roots of which have been employed in Indian traditional systems of medicine, Ayurveda and Unani.
- It is an associate degree erect branching shrub reaching regarding one.50 m tall. It grows in dry and sub-tropical regions.
- Being hardy and drought tolerant species with its monumental bio compounds, its usage is forever regarded and continuous to relish the monopoly in several elements of India, notably in Madhya Pradesh.
- It grows in dry elements in sub-tropical regions. Rajasthan, Punjab, Haryana, Uttar Pradesh, Gujarat, square measure a|geographic area|geographical region|geographic region} and Madhya Pradesh are the most important Ashwagandha manufacturing states of the country.
- Ashwagandha grows well in sandy loam or light red soil having pH 7.5 to 8.0 with good drainage.
- Black soils or such significant soils are appropriate for cultivation.
- It is mature as late season (kharif) crop. The semi-tropical areas receiving five hundred to seven hundred to 750 millimeter precipitation are appropriate for its cultivation as rainfed crop.
- It will tolerate a temperature vary of 20°C to 38°C and even coldness as low as 10°C.

- The plant grows from water level to Associate in Nursing altitude of 1500 meter higher than water level.
- Medicinal properties and use Ashwagandha is taken into account to be one amongst the simplest rejuvenating agents in Ayurveda.
- Its roots, seeds and leaves are unit employed in Ayurvedic and Unani medicines.
- Ashwagandha root drug finds a crucial place in treatment of rheumatic pain, inflammation of joints, nervous disorders, and encephalopathy.
- Dried roots square measure used as tonic for hiccup, cold, cough, feminine disorders, as a sedative, in care of gaga infirmity, ulcers, etc.
- Leaves square measure applied for carbuncles, inflammation and swellings.
- Leaf juice is beneficial in inflammation. Bark stewing is taken for respiratory illness and applied domestically to bed sores.
- Ashwagandha and its extracts square measure employed in preparation of tea, powders, tablets and syrups.
- Benefits it's been used for over three,000 years to alleviate stress, increase energy levels, and improve concentration In many studies, ashwagandha has been shown to lower blood glucose levels.
- One test-tube study found that it enlarged hypoglycaemic agent secretion and improved hypoglycaemic agent sensitivity in muscle cells Withaferin — a compound in ashwagandha — helps induce necrobiosis, that is that the programmed death of cancer cells (7 trustworthy Source).
- It also impedes the growth of new cancer cells in several ways It may help alleviate depression

- It has been shown to increase natural killer cell activity and decrease markers of inflammation
- It may help reduce the risk of heart disease by decreasing cholesterol and triglyceride levels.
- It supplements may improve brain function, memory, reaction time, and the ability to perform tasks.

## **Topic 11. BREASTFEEDING**

### ***Importance for Prelims: Science and Technology***

NICEF states that “breastfeeding is among the foremost effective ways in which to safeguard maternal and kid health and promote healthy growth and optimum development in time of life.

- During the Renaissance period, breastfeeding came to be seen as unfashionable.
- Feeding bottles and formula milk were aggressively advertised leading to a reduction in breastfeeding between the 17th and 19th century.
- However, throughout the late nineteenth century, a rise in death rate and rise in non-communicable diseases throughout adulthood were attributed to bottle feeding.
- This prompted experts and leaders everywhere to push for breastfeeding across the world.
- Breastfeeding Infants ought to be breastfed at intervals one hour of birth, breastfed solely for the primary six months of their lives, and be breastfed when six months together with solid, semi-solid and soft food till they're regarding 2 years previous.
- Both the mother and new-born are vulnerable for the first 12 weeks.
- Getting used to breastfeeding takes at least 14 days.
- Many advantages Breastfeeding provides greater immunity for children against infection, allergies, cancers and obesity; and improves brain maturation.

### **It is also beneficial for the mother:**

- it promotes quicker weight loss when birth, reduces postnatal trauma, and protects her against carcinoma, gonad cancer, and pathology.
- Data from The Lancet show that a lot of investment in breastfeeding



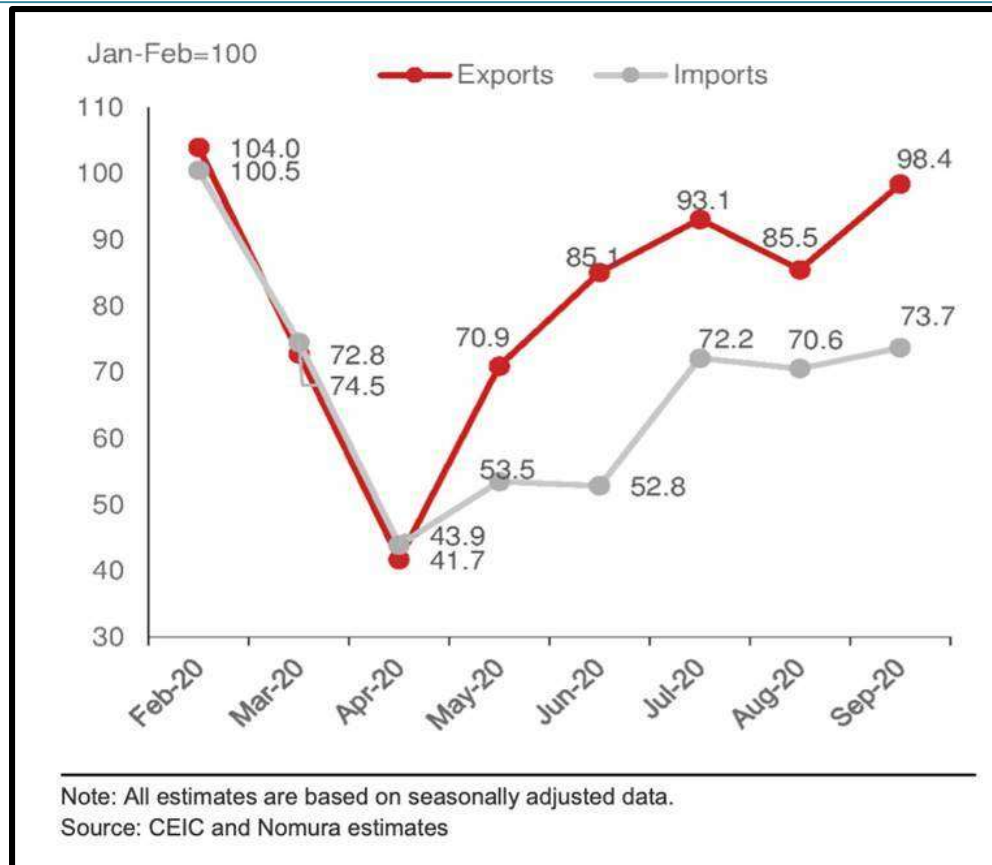
could add \$300 billion to the world economy and stop regarding eight,20,000 kid deaths per annum.

- Globally solely 25%-40% of babies square measure breastfed. Breastfeeding and later wet nursing were the norm for scores of years.
- However, the National Family Health Survey-5 information show that there has been a decline in early breastfeeding in as several as twelve of the twenty two surveyed States and Union Territories where as the share of institutional births has exaggerated. Maternity and paternity leave.
- The theme for World Breastfeeding Week this year is 'Protect Breastfeeding: A Shared Responsibility'.
- Breastfeeding has shrivelled throughout the COVID-19 pandemic.
- Therefore, it's vital that the promotion the planet Alliance for Breastfeeding Action (WABA) the planet Alliance for Breastfeeding Action (WABA) was established in 1991 to form awareness regarding the importance of breastfeeding.
- I In 1992, WABA in coordination with United Nations Children's Fund introduced World Breastfeeding Week throughout the primary week of August once a year.
- India enacted the kid Milk Substitutes, Feeding Bottles and kid Foods Act in 1992 with tight rules.
- The breastfeeding should be a continuous process, not an event restricted to a week Colostrum is a breast fluid produced by humans, cows, and other mammals before breast milk is released.
- It's terribly nourishing and contains high levels of antibodies, that are proteins that fight infections and bacterium.
- Colostrum promotes growth and health in infants and new-born animals, but research shows that taking bovine colostrum supplements

may promote immunity, help fight infections, and improve gut health throughout life.

- **Topic 12. INDIAN ECONOMY RECOVERY**

*Importance for Prelims: Economy*



In news: The Indian economy is during a vicious circle of low growth and better inflation.

- 1. Economic Recovery it's the fluctuation stage following a recession that's characterised by a sustained amount of rising commercial activity.
- Normally, throughout associate economic recovery, GDP grows, incomes rise, and state falls and because the economy rebounds.
- India goes through a K-shaped recovery, whereby corporates and households with stronger balance sheets have recovered additional robustly, whereas smaller corporations and poorer households most likely stay treed during a vicious circle of financial condition and obligation instigated by the pandemic.
- 2. varieties of Economic Recovery: Economic recovery will take several forms, that is delineate victimisation alphab

etic notations.

- For example, a Z-shaped recovery, V-shaped recovery, U-shaped recovery, elongated U-shaped recovery, W-shaped recovery, L-shaped recovery and K shaped recovery. K-Shaped

### Recovery:

- A K-shaped recovery: happens once, following a recession, totally {different|completely different} elements of the economy recover at different rates, times, or magnitudes.
- This is in distinction to a fair, uniform recovery across sectors, industries, or teams of individuals.
- A K-shaped recovery results in changes within the structure of the economy or the broader society as economic outcomes and relations square measure essentially modified before and when the recession.
- Z-shaped recovery: it's the most-optimistic situation within which the economy quickly rises when associate economic crash.
- In this economic disruption lasts for alittle amount whereby quite people's incomes, it's their ability to pay is restricted.
- V-shaped recovery: it's the next-best situation when Z-shaped recovery within which the economy quickly recoups lost ground and gets back to the traditional growth trend-line.
- In this, incomes and jobs don't seem to be for good lost, and also the economic process recovers sharply and returns to the trail it absolutely was following before the disruption.
- U-shaped recovery: it's a situation during which the economy, when falling, struggles around a coffee rate for a few time, before rising step by step to usual levels.

- In this case many jobs are lost and other people chance upon their savings.
- If this method is more-long drawn than it affords the “elongated U” form.
- W-shaped formed recovery: A W-shaped recovery may be a dangerous creature. In this, growth falls and rises, however falls once more before ill, so forming a W-like chart.
- The double-dip depicted by a W-shaped recovery can be due to the second wave of the pandemic.
- **L-shaped recovery:** In this, the economy fails to regain the level of GDP even after years go by.
- The shape shows that there is a permanent loss to the economy’s ability to produce.
- **Economic Growth & Base Effect:** India is suffering from stagnant growth to low growth in the last two quarters.
- At best, any growth in the current quarter will be illusionary because it comes on top of substantial negative growth in the first quarter of last year, perpetuating a statistical phenomenon known as the “low base effect”.
- The base result is that the result that selecting a distinct reference for a comparison between 2 information points will wear the results of the comparison.
- Base result refers to the impact of a rise within the index (i.e. previous year’s inflation) over the corresponding rise in worth levels within the current year (i.e., current inflation).
- The base result states that once measure YoY, or year-over-year growth, we tend to take the previous year’s numbers because the base and live the expansion as a share.
- As in the low initial base set by last year, almost any growth this year is seen as a significant growth percentage.



- In comparison, the absolute growth figure is negligible.
- The base effect can lead to distortion in comparisons and deceptive results.
- **Inflation & its causes in current scenario:** Inflation: Inflation refers to the rise in the prices of most goods and services of daily or common use, such as food, clothing, housing, recreation, transport, consumer staples, etc.
- Inflation measures the typical worth amendment in a very basket of commodities and services over time. Inflation is indicative of the decrease within the buying power of a unit of a country's currency.
- This may ultimately cause a speed in economic process. However, a moderate level of inflation is needed within the economy to make sure that production is promoted.

#### **Current causes:**

- Inflation in Asian nation is being foreign through a mix of high trade goods costs and high quality worth inflation caused by ultra-loose financial policy followed across the world.
- Foreign portfolio investors have directed some of the liquidity towards our markets. Compared to a developed capital market like that of the U.S., Asian nation includes a comparatively low capitalization.
- It, therefore, cannot absorb the big capital influx while not quality costs inflating. in addition, provide chain bottlenecks have contributed to inflation.
- Essential product have redoubled in price thanks to scarce provide due to these bottlenecks caused by COVID-19 and its reactionary measures enforced .
- India's taxation policy on fuel has created things worse. Rising

fuel costs percolate into the economy by increasing prices for transport.

- Furthermore, the rise in fuel costs also will cause an increase in wages demanded because the monthly expense of the final public will increase.
- This leads to the dangerous cycle of inflation and depleting growth.

### Other Causes:

- Due to fiscal stimulus. Depreciation of rupee.
- Low unemployment rate.
- Increase in price of inputs.
- Hoarding and Speculation of commodities.
- **Minsky moment:** Our small and medium scale sector is facing a Minsky moment.
- The Minsky moment, coined by the social scientist Hyman Minsky, states that each credit cycle has 3 distinct stages.
- The 1st stage is that of cautious loaning and risk aversion by the bankers.
- The second stage is lending to trustworthy debtors who can pay the principal and its interest.
- The third stage could be a state of high spirits caused by rising plus costs wherever bankers lend to debtors notwithstanding their ability to pay back interest, in addition to the principal.
- The Minsky moment marks the decline of asset prices, causing mass panic and the inability of debtors to pay their interest and principal.

### **Topic 13. SCHEMES BY MINISTRY OF YOUTH AFFAIRS & SPORTS**

#### ***Importance for Prelims: Government Schemes***

Ministry has set to determine one thousand Khelo Asian nation Centres across the country, out of that 360 Khelo Asian nation Centres have already been notified. This data was given by Minister of Youth Affairs & Sports Shri Anurag Thakur in a very written reply in Rajya Sabha these days.

- ‘Sports’ being a State subject, the responsibility for development of sports, as well as gap sports colleges, rests with the State / Union Territory Governments. Central Government supplements their efforts during this regard.
- This Ministry does not maintain State/UT/district-wise data in respect of the number of such schools in the country.
- The Ministry of Youth Affairs & Sports has formulated the following schemes to promote sports in the country, including in rural,

**tribal and backward areas: –**

1. Khelo India Scheme
2. Assistance to National Sports Federations;
3. Special Awards to Winners in International sports events and their Coaches;
4. National Sports Awards, Pension to worthy Sports Persons;
5. Pandit Deendayal Upadhyay National Sports Welfare Fund;
6. National Sports Development Fund; and
7. Running Sports Training Centres through Sports Authority of India.
  - The majority of the sportspersons benefitting from these Schemes belong to the agricultural, backward, social group and girls population of the country and are given regular coaching on Residential and Non-Residential basis as per the approved norms of the Schemes.
  - ‘Talent Search and Development’ vertical of the Khelo India Scheme Under the scheme India is divided into 05 zones namely North, East, West, South and North-East Zones to carry out talent identification.
  - Grassroot Zonal Talent Identification Committees are formed to reach out to each and every corner of the country to shortlist the potential and proven athletes.
  - Talent Identification is carried out in 20 sports disciplines in the age group of 8 to 14 years, wherein the country has the potential / advantage to excel at the international level.
  - The talent search has been started at grassroots level in 2 categories: Sports potential talent identification, established talent identification underneath the ‘Talent Search and Development’ vertical of the Khelo Republic of India theme, Khelo Republic of India Athletes known and designated underneath the theme square

measure provided annual monetary help of ₹ six.28 large integer per jock once a year Ministry has determined to ascertain one thousand Khelo Republic of India Centres across the country, out of that 360 Khelo {india|India|Republic of {india|India|Republic of Republic of India|Bharat|Asian country|Asian nation}|Bharat|Asian country|Asian nation} Centres have already been notified 236 sports academies have thus far been authorised across the country underneath the “Support to National/Regional/State Sports Academies” vertical of the Khelo India theme underneath the “Support to National/Regional/State Sports Academies” vertical of the Khelo India theme, sports academies square measure accredited for the coaching of the Khelo Republic of India Athletes.

- Further, underneath the “State Level Khelo {india|India|Republic of Republic of India|Bharat|Asian country|Asian nation} Centre” vertical of the Khelo India theme, this Ministry has determined to ascertain one thousand Khelo Republic of India Centres across the country, out of that 360 Khelo Republic of India Centres have already been notified



## **Topic 14. PARAKRAM DIWAS**

### ***Importance for Prelims: History***

Government of India has decided to celebrate the 125th Birth Anniversary year of Netaji Subhas Chandra Bose in a befitting manner at national and international level, beginning from 23 January 2021.

- A High Level Committee, headed by the Prime Minister, has been accepted for deciding the programs, and to supervise and guide the commemoration.
- In order to honour and bear in mind Netaji's unsubduable spirit and altruistic service to the state, Government of Bharat has set to celebrate his birthday on the twenty three day of Jan once a year as "PARAKRAM DIWAS" to inspire folks of the country, particularly the youth, to act with bravery within the face of adversity as Netaji did, and to infuse in them a spirit

of nationalistic fervour.

- Subhash Chandra Bose's Role in Indian Independence Struggle Bose was sent to prison in Mandalay for nationalist activities in 1925.
- He was free in 1927 and have become the INC's general secretary.
- He worked with Jawaharlal Nehru (Born on November 14 – 1889) and the two became the Congress Party's young leaders gaining popularity among the people.
- He advocated complete Swaraj and was in favour of the use of force to gain it.
- Bose stood for and was elected the party's president in 1939 but was forced to resign due to differences with Gandhi's supporters.
- Bose's ideology tilted towards socialism and leftist authoritarianism.
- He fashioned the All Republic of India Forward alignment in 1939 as a faction inside the Congress.
- At the beginning of the Second war, nuclear physicist protested against the government for not consulting Indians before dragging them into the war.
- He was in remission once he unionised protests in urban center for the removal of the monument memorializing the part of urban center.
- In Germany, he met with the Nazi leaders and hoped to stage an armed struggle against the British to gain independence.
- He hoped to befriend the Axis powers since they were against his 'enemy', the British.
- He founded the Indian Legion out of about 4500 Indian soldiers who were in the British army and had been taken prisoners by the Germans from North Africa.
- In 1943, he left Germany for Japan disillusioned with the lukewarm German support for Azad Hind.

- Bose's arrival in Japan revived the Indian National Army (Azad Hind Fauj) which had been formed earlier with Japanese help.
- Azad Hind or the Provisional Government of Free India was established as a government-in-exile with Bose as the head.
- Its headquarters was in Singapore. The INA was its military.
- Bose motivated the troops with his fiery speeches.
- His illustrious quote is, "Give American state blood, and that i shall offer you freedom!"
- The INA supported the japanese army in its invasion of northeast Asian country and conjointly took management of the Andaman and Nicobar Islands.
- However, they were forced to retreat by British forces following the Battles of Kohima and Imphal in 1944.

## **Topic 15. KRISHNA RIVER WATER DISPUTE**

***Importance for Prelims: Polity***



### Other major inter-state river disputes

#### Ravi & Beas

States fighting

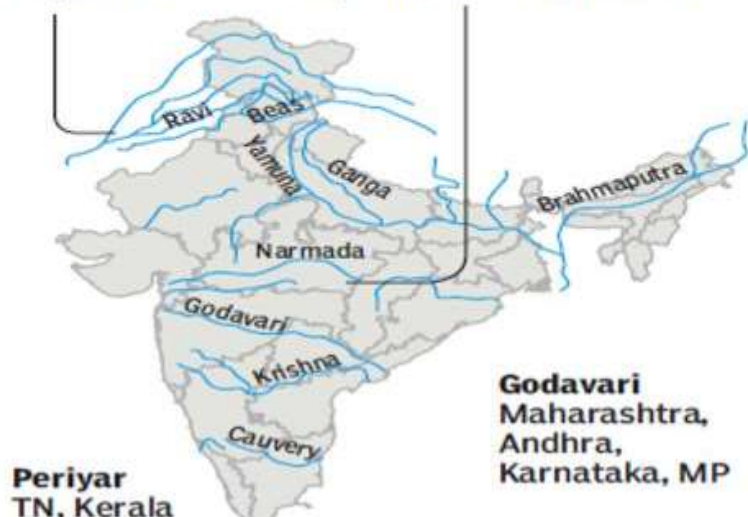
Punjab, Haryana, Rajasthan

#### Narmada

MP, Gujarat, Maharashtra, Rajasthan

#### Krishna

Maharashtra, Andhra, Karnataka



The Supreme Court on Mon advised to Andhra Pradesh and Telangana to settle their Krishna stream water dispute through mediation.

- A bench headed by Chief Justice NV Ramana was hearing Andhra Pradesh's plea alleging that Telangana has deprived it of its legitimate share of drinking and irrigation water.
- In July, Andhra Pradesh government had rapt the highest court claiming that the Telangana government refused to follow the choices taken by the Apex Council well-grooved beneath the Andhra Pradesh Reorganization Act, 2014, the directions of Krishna stream Management Board (KRMB) fashioned beneath this Act, and therefore the Centre's directives.
- About Krishna watercourse Water Dispute: Telangana and province share stretches of the Krishna and also the Godavari and own their tributaries.
- Both states have planned many new comes while not obtaining clearance from the watercourse boards, the Central Water Commission and also the Apex Council, as mandated by the province shake-up Act, 2014.
- Andhra Pradesh alleges that Telangana has been drawing Krishna water from four comes — Jurala, Srisailam, NagarjunaSagar, and Pulichintala — for hydropower generation while not approvals from the Krishna watercourse Management Board (KRMB), associate degree autonomous body that was started once the bifurcation of the state, to manage and regulate the waters within the Krishna basin.
- Telangana created it clear that it'd not acknowledge Pothireddypadu project, that it alleges is being lawlessly made by the province government on avatar stream with none environmental clearances or allocation of even a drop of water to the project or any permission from the inexperienced judicature.
- Latest development which stirred this dispute Telangana government ordered in late June 2021 notifying to generate hydel power up to 100%



installed capacity.

- The order directed the Telangana State Power Generation Corporation Limited (TSGENCO) to hence generate the hydel power up to 100% installed capacity in the State.
- This resulted in the citizens of Andhra Pradesh being deprived of their legitimate share of water for drinking and irrigation purposes
- The Ministry of Jal Shakti in communication with the Director (Hydel), TSGENCO, had urged the latter to prevent more unharness of water in real time through Srisailem Left Power House and follow the water unharness orders issued by the KRMB, except just in case of utmost grid urgency.

### **How is the water split between the states currently?**

- After the bifurcation of the erstwhile State of state in 2014 into the States of state & Telangana, arrangements were modified.
- It was in agreement between the 2 states that the 811 TMC allocation created by the KWDT-I would be doled out in an exceedingly manner whereby the State of Telangana can have 299 TMC whereas the State of state can get 512 TMC.
- This agreement (2015 Agreement) was entered before and is monitored by KRMB.
- The 2 states in agreement to separate the water share 66:34 on an advert hoc basis till the Krishna Water Disputes Tribunal-2 determined the ultimate allocation.

### **Krishna River Management Board:**

- In exercise of the powers conferred under section 85 of the Andhra Pradesh Reorganization Act, 2014, the Central Government constituted an autonomous KRMB for the administration, regulation, maintenance and operation of such comes, Apex Council Section 84(1) of

the province organisation ACT, the Central Government shall, on and from the appointed day, represent Associate in Nursing Apex Council for the management of the functioning of the Krishna stream Management Board.

- The Apex Council shall consist of Minister of Water Resources, Government of India-Chairperson; Chief Minister of State of Andhra Pradesh-Member; Chief Minister of State of Telangana-Member.
- Inter-State Water Disputes Article 262 of the Constitution provides for the adjudication of inter-state water disputes.
- Under this, Parliament may by law provide for the adjudication of any dispute or complaint with respect to the use, distribution and control of waters of any inter-state river and river valley.
- Parliament may additionally give that neither the Supreme Court nor the other court is to exercise jurisdiction in respect of any such dispute or grievance.
- The Parliament has enacted the 2 laws, the stream Boards Act (1956) and therefore the Inter-State Water Disputes Act (1956).
- The stream Boards Act provides for the institution of stream boards by the Central government for the regulation and development of inter-state stream and stream valleys.
- A stream Board is established on the request of state governments involved to advise them.
- The Inter-State Water Disputes Act empowers the Central government to line up an ad hoc assembly for the assessment of a dispute between 2 or a lot of states in relevancy the waters of Associate in Nursing inter-state river or river valley.
- The call of the judicature is final and binding on the parties to the dispute.

- Neither the Supreme Court nor any other court is to have jurisdiction in respect of any water dispute which may be referred to such a tribunal under this Act.
- Krishna River The Krishna is an east-flowing river.
- The Krishna River is the second biggest river in peninsular India.
- Originates at Mahabaleshwar in Maharashtra and merges with the Bay of Bengal Flows through Maharashtra, Karnataka, Telangana and Andhra Pradesh.
- Together with its tributaries, it forms a vast basin that covers 33% of the total area of the four states.
- The principal tributaries connexion avatar ar the Ghataprabha, the Malaprabha, the Bhima, the Tungabhadra and therefore the Musi (Hyderabad settled on it).
- Most of this basin includes rolling and undulating country, aside from the western border, that is created by AN unbroken line of the Western Ghats.
- The necessary soil varieties found within the basin ar black soils, red soils, dirt and lateritic soils, alluvium, mixed soils, red and black soils and saline and base-forming soils.

## **Topic 16. VIRTUAL REALITY**

***Importance for Prelims: Science and Technology***



In news: Indian Institute of Technology Madras has launched the country's first consortium for Virtual Reality called 'Consortium for VR/AR/MR Engineering Mission in India' (CAVE).

#### **About CAVE:**

- It aims to become a resource for trade, academia, consumers, and policy manufacturers curious about virtual, augmented, and mixed reality.
- The key outcomes envisaged from CAVE embrace developing autochthonous VR/AR/MR and 'haptics' hardware and software; found out 'VR Superhighway' or 'VR Corridor' wherever several start-ups and industries work along for a much bigger mission to create Asian country the selection for future XR and 'haptics' wants.
- Centre of Excellence on computer game and Haptics at IIT Madras has been got wind of below the 'Institute of Eminence' Initiative.
- Extended reality Extended Reality (XR) is an umbrella term encapsulating Augmented Reality (AR), Virtual Reality (VR), mixed reality (MR), and everything in between.
- Augmented Reality (AR) An enhanced version of reality where live

direct or indirect reads of physical realworld environments area unit increased with superimposed computer-generated pictures over a user's view of the real-world, so enhancing one's current perception of reality.

- Various filters on Snapchat associated Instagram area unit an example of increased Reality.
- Gaming –Pokemon is one of the most famous games to hit a big chord with the public.
- Virtual Reality (VR): It will be noted as immersive transmission or computer-simulated reality that replicates associate degree setting that simulates a physical presence in places within the universe or associate degree fanciful world, permitting the user to act in this world.
- Images created by a computer that appear to surround the person looking at them and seem almost real are said to be virtual reality.
- On the other hand Augmented reality is the real-time use of information in the form of text, graphics, audio, and other virtual enhancements integrated with real-world objects.
- Mixed reality (MR): It will be remarked as hybrid reality that's the merging of real and virtual worlds to provide new environments and visualisations wherever physical and digital objects co-exist and act in real time.
- Microsoft's Hololens could be a well-known example of Associate Nursing existing, commercially out there Mixed Reality device.
- Augmented Reality video game Mixed Reality Integrates text, graphics, audio, and adds worth to the users' interaction with the \$64000 world.
- Transparent screen AR doesn't replace the particular world surroundings with 3D digital parts.
- Simulation of Reality Opaque screen VR replaces the particular world

environment with 3D digital elements VR is a completely computer-generated three-dimensional environment that is displayed either on a computer screen or through special displays.

- It could be a combination of AR and VR, permits someone to envision and immerse oneself within the planet whereas at the same time interacting with the virtual surroundings victimization hands.

## **Topic 17. NATIONAL CHILD LABOUR PROJECT (NCLP) SCHEME**

***Importance for Prelims: Government Schemes***



In 2020-21, over 58,000 youngsters were saved across India from work, restored and integrated beneath the National kid Labour Project, in keeping with figures tabled in Lok Sabha on Mon by Minister of State for Labour and Employment RameshwarTeli.

- National Child Labour Project (NCLP) Scheme The Ministry of Labour and Employment is also implementing the National Child Labour Project (NCLP) Scheme since 1988 for rehabilitation of child labourers.
- Under the NCLP, the kids within the cohort of 9-14 years square measure saved / withdrawn from work and registered within the NCLP Special coaching Centres, wherever they're supplied with bridge education, vocational education, mid-day meal, stipend, health care, etc.
- before being integrated into formal education system. the kids within the cohort of 5-8 years square measure directly connected to the formal education system through an in depth coordination with the Sarva Shiksha Abhiyan.
- To make sure the effective social control of the provisions of the kid Labour Act and sleek implementation of NCLP theme, a fanatical on-line portal named PENCIL (Platform for Effective social control for No kid Labour) is developed so as to create the NCLP productive through higher observation and implementation.
- The Portal connects Central Government to State Government(s), District(s), all Project Societies and therefore the general public
- Government measures: Asian nation is committed for demolition of kid labour from the country.
- The Government has amended the kid Labour (Prohibition & Regulation) Act, 1986 and enacted the kid Labour (Prohibition & Regulation) change Act, 2016.
- It provides for complete prohibition of labor or employment of

youngsters below fourteen years of age in any occupation and method and prohibition of adolescents within the cohort of fourteen to eighteen years in venturesome occupations and processes.

## **Topic 18. HIGH-ALTITUDE TIGERS**

***Importance for Prelims: Environment***



To celebrate International Tiger Day last week, the Uttarakhand government highlighted the expanse of the Uttarakhand state's tiger map from Corbett park to Kedarnath life Sanctuary.

- High-altitude Tigers The environs of tiger is varied, encompassing many biomes and ecological conditions, viz. Rhizophora mangle swamps, highlands, plains, rainforests, arid or semi-arid areas and mountainous regions.
- However, most of the high-altitude habitats, among the tiger vary haven't been surveyed for Associate in Nursing appraisal of tiger presence, prey and environs standing Between the terai and therefore the mountains, state's tiger map flaunted the tiger vary from Associate in Nursing elevation of one,181 linear unit (360 m) to twelve,073 linear unit (3680 m) may be a testimony of Uttarakhand's success in tiger conservation.
- The tiger's usual vary is beneath half-dozen,000 linear

unit (below one,800 ft, suppose Kasauli).

- That makes its presence higher than twelve,000 linear unit the elevation of the Kedarnath temple however tigers have shown up before a strategically placed motion-triggered camera at higher altitudes
- There can be no trade-off between traditional tiger habitat and these new heights of feline interest.
- High-altitude Habitat The tiger has left its tracks in the winter snows of the Himalayas at an altitude of 10,000 ft.
- Few places are: Uttarakhand– Pithoragarh district geographic region - Jelep Laa notch Arunachal Pradesh -Dibang depression district of Arunachal Pradesh at (1,765 m). Mishmi Hills (Dibang Valley) Rudraprayag's Kedarnath life Sanctuary at (3,400m) Asian nation - Phrumsengla park (2,965m) ,Jigme Dorji park at (4,200 m) Nepal- Dadeldhura ,Kangchenjunga Landscape region.
- Few places are: Uttarakhand– Pithoragarh district geographic area -Jelep Laa pass Arunachal Pradesh - Dibang depression district of Arunachal Pradesh at (1,765 m). Mishmi Hills (Dibang Valley) Rudraprayag's Kedarnath life Sanctuary at (3,400m) Kingdom of Bhutan - Phrumsengla parkland (2,965m) ,Jigme Dorji parkland at (4,200 m) Nepal- Dadeldhura ,Kangchenjunga Landscape region.
- Causes for concern Records of high-altitude tigers getting somewhat routine have alarmed a section of conservationists.
- Warming induced by climate change, they argue, is making the higher mountains tolerable for tigers.
- But the fact that tigers are found roaming the snow indicates that their upward movement is not deterred by the cold.
- The fact that there are enough tigers in certain pockets to wander around

is certainly good news.

- But that ought to not prompt hasty proposals, like declaring a high-altitude space as tiger reserve, or perhaps shifting a conservation space upward.
- Jim Corbett National Park Corbett National Park, also called Jim Corbett National Park is located in southern Uttarakhand state, northern India.
- It was established as Hailey National Park in 1936 and is India's oldest national park.
- The park is located in the foothills of the Himalayas—about 35 miles (50 km) northwest of Ramnagar.
- It mainly occupies the broad Patlidoon Valley, through which the Ramganga River flows in a westerly direction.
- The forest cover includes species of sal (Shorea), teak, oak, silver fir, spruce, cypress, birch, and bamboo.
- A reed forest was planted to afford natural cover for the park's animals.
- The park was established mainly for the protection of the Bengal tiger (*Panthera tigris*).
- It is here that India's Project Tiger was established in 1973 to produce havens for tigers within the country's national parks. Kedarnath Wild Life Sanctuary, it's additionally known as the Kedarnath deer Sanctuary.
- It may be a life sanctuary declared underneath life Protection Act, 1972 and placed in Uttarakhand, India.
- Its alternate name comes from its primary purpose of protective the vulnerable range of mountains cervid.
- Consisting of a locality of 975 kilometer (376 sq mi), it's the most important protected space within the western range.
- It is legendary for alpine cervid, range of mountains Thar, range of

mountains Griffon, range of mountains Black  
bear, ounce and alternative flora park and fauna.

## **Topic 19. RASHTRIYA VAYOSHRI YOJANA (RVY) SCHEME**

***Importance for Prelims: Government Schemes***




It is a theme for providing Physical Aids and Assisted-living Devices for Senior voters happiness to BPL class.

- This could be a Central Sector theme, totally funded by the Central Government. The expenditure for implementation of the theme are met from the “Senior Citizens’ Welfare Fund”.
  - The theme are enforced through the only real implementing agency – Artificial Limbs producing Corporation (ALIMCO), a PSU underneath the Ministry of Social Justice and authorization.
  - Under the scheme, the physical aids will be provided only to the senior citizens of the nation.
  - This implies those who are aged above 60 years will get free assisted living aids and physical devices which are required for their sustainability.
  - Also the govt. has selected the list of cities where the scheme will be implemented.
  - The main criteria for the senior voters to induce full edges of Rashtriya Vayoshri Yojana (RVY)scheme is that they have to belong to BPL family and may hold valid BPL card issued by the involved authority.
  - Eligibility: Senior voters, happiness to BPL class and stricken by any of the age connected disability/infirmity viz. Low vision, handicap, Loss of teeth and whacky motor incapacity are given such assisted-living devices which might restore close to normalcy in their bodily functions, overcoming the disability/infirmity manifested.
  - The theme is predicted to learn all Senior voters across the country.
- DEVICES SUPPORTED Walking sticks Elbow crutches Walkers/Crutches Tripods/Quadpods Hearing Aids chair Artificial. Dentures Spectacles

## **Topic 20. AYUSH-64**

***Importance for Prelims: Science and Technology***



**AYUSH-64**

An Ayurvedic formulation which helps in significantly reducing the duration for clinical recovery of COVID-19 patients, who are asymptomatic, or have mild symptoms.

**Other benefits -**

- Can be taken along with existing modern treatment (Under Ayurvedic Practitioner's supervision).
- Covid-19 patients who have co-morbidities like hypertension, diabetes etc. may benefit from AYUSH-64.
- Significant positive effects on general health, fatigue, anxiety, appetite, sleep, etc.

Government of India has released “National Clinical Management Protocol based on Ayurveda and Yoga for management of COVID-19” prepared by the National Task force in consensus from various expert committees.

- The Ministry of AYUSH has shaped Associate in Nursing Inter-disciplinary AYUSH R&D Task Force having illustration from Indian Council of Medical analysis (ICMR), Department of Biotechnology (DBT), Council of Scientific and Industrial analysis (CSIR), All Asian country Institute of Medical Sciences (AIIMS) and AYUSH establishments.
- The Inter-disciplinary AYUSH R&D Task Force has formulated and designed clinical research protocols for 13/14 prophylactic studies and add-on interventions in COVID-19 positive cases for studying four different interventions viz. Ashwagandha, Yashtimadhu, Guduchi + Pippali and a poly herbal formulation (AYUSH-64).

### Concept:

- Ayush-64 is an Ayurvedic formulation, developed by the Central

Council for Research in Ayurvedic Sciences (CCRAS), the apex body for research in Ayurveda under the Ministry of Ayush.

- Originally developed in 1980 for the management of Malaria, this drug has now been repurposed for Covid 19 as its ingredients showed notable antiviral, immunemodulator and antipyretic properties.

## **Topic 21. CREATING AWARENESS AMONG FARMERS FOR NUTRI CEREALS (MILLETS)**

## Importance for Prelims: Agriculture



The Government, below the Sub Mission on National Food Security Mission (NFSM)- Nutri Cereals is making awareness among farmers for Nutri Cereals (Millets) like African millet, sorghum, bajra and little millets through demonstration and coaching.

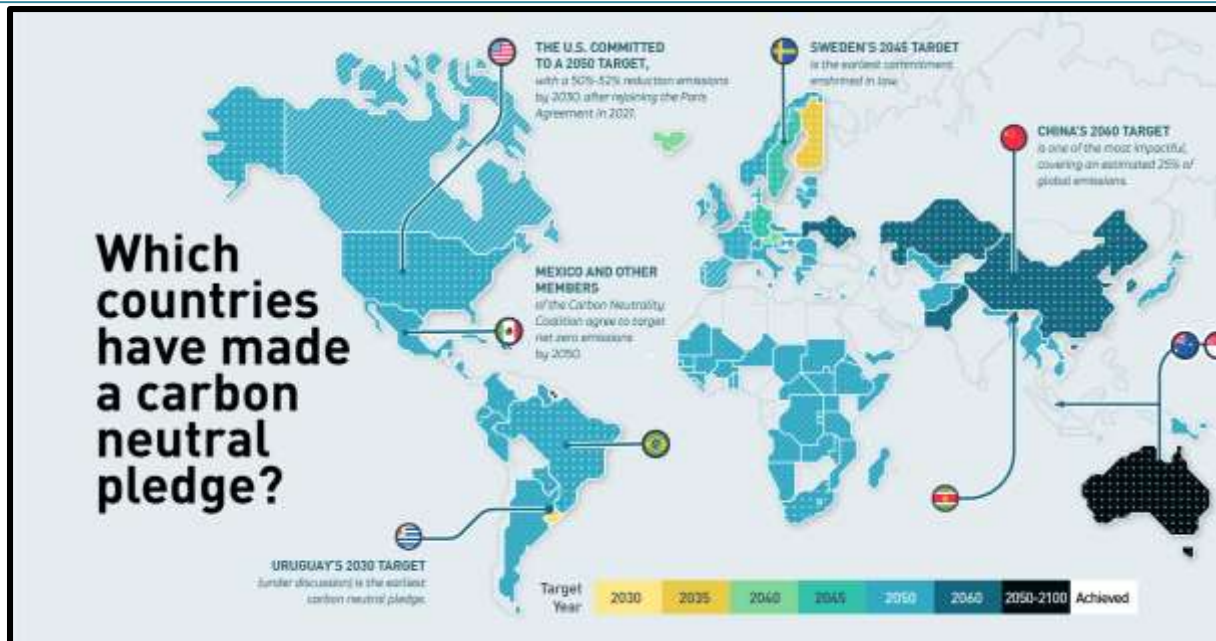
- National Food Security Mission (NFSM) – Nutri Cereals Under NFSM– Nutri Cereals, incentives are provided to the farmers, through the state governments, on crop production and protection technologies, cropping system based demonstrations, production & distribution of seeds of newly released varieties/ hybrids, Integrated Nutrient and Pest Management techniques, improved farm implements/tools/ resource conservation machineries, water saving devices, capacity building of farmers through trainings during cropping season, organizing events / workshops, distribution of seed minikits, publicity through print and electronic media etc.
- The interventions like formation of Farmer Producer Organizations

- (FPOs) for Nutri Cereals, fitting Centers of Excellence (CoE) and seed hubs for Nutri Cereals have additionally been supported below NFSM.
- Nutri-Cereals: Asian country is one in every of the necessary shopper and producer of Nutri-cereals within the world.
  - Group of crops comprising sorghum (Jowar), Pennisetum Americanum (Bajra), corakan (Ragi/Mandua) and {little|and tiny} millets viz; little millet (Kutki), kodo millet (Kodo), yard millet (Sawa/Jhangora), Setaria italica (Kangni/Kakun), proso millet (Cheena) all at once comes below Millets that is currently known as as 'Nutri-Cereals' thanks to their high nutritious price.
  - Nutri-cereals were necessary crops within the country with higher space coverage as compared to wheat and rice before revolution amount.
  - After launching revolution, {the space|the world|the realm} of Nutri-cereals drastically reduced because of shifting of irrigated area from Nutri-cereals to additional remunerative crops like rice, wheat and sugarcane.
  - At gift, Nutri-cereals area unit grownup in resource poor agro-climatic regions, mountainous & social group areas of the country in rainfed conditions. Nutri-cereals area unit well-known for nutri-rich content and having characteristics like drought tolerance, photo-insensitivity and resilient to temperature change etc.
  - Nutri-cereals area unit grownup in arid and semi-arid tracts below low precipitation (200-600 mm) conditions, wherever fine cereals like wheat and rice can't be grownup profitably.

## **Topic 22. 'NET ZERO' Carbon Targets**

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





NGO Oxfam has **aforesaid** that 'net zero' carbon targets **that several** countries have **declared is also** a “dangerous distraction” from the priority of cutting carbon emissions.

### What the report says?

- “Land-hungry ‘net zero’ schemes might force AN eighty per cent rise in world food costs and additional hunger whereas permitting wealthy nations and corporates to continue “dirty business-as-usual,”
- Oxfam has aforesaid during a new report titled “Tightening the Net”.
- The report says that if the challenge of amendment is tackled solely by means of planting additional trees, then regarding one.6 billion hectares of recent forests would be needed to get rid of the world’s excess carbon emissions by the year 2050.
- Further, it says that to limit warming below one.5°C and to forestall irreversible injury from temperature change, the planet must put together air track and may aim to chop emissions by forty five per cent by 2030 from 2010 levels, “with the sharpest being created by the largest emitters.”
- “Oxfam’s report shows that if the complete energy sector whose

emissions still soar, were to line similar 'net-zero' targets, it'd need a neighborhood of land nearly the scale of the Amazon timber, similar to a 3rd of all farmland worldwide.

### **What does net-zero mean?**

- Net-zero, that is additionally noted as carbon-neutrality, doesn't mean that a rustic would bring down its emissions to zero.
- Gross-zero means that reaching a state wherever there are not any emissions in any respect. Therefore, net-zero could be a state within which a country's emissions area unit stipendiary by absorption and removal of greenhouse gases from the atmosphere. a way by that carbon are often absorbed is by making carbon sinks.
- Bhutan is that the 1st carbon-negative country within the world. Bhutan and Netherlands Guiana ar the sole 2 countries that have achieved carbon neutrality and are literally carbon negative (removing a lot of carbon than they emit).

### **Which countries have recently announced net-zero targets?**

- New Zealand: passed the Zero Carbon Act 2019, that committed the country to zero carbon emissions by 2050 or sooner, as a part of the country's tries to satisfy its Paris climate accord commitments.
- UK: UK's parliament passed legislation in 2019 requiring the govt. to cut back the UK's web emissions of greenhouse gases by one hundred per cent relative to 1990 levels by the year 2050.
- US president Joe Biden declared that the country can cut its gas emissions by a minimum of fifty per cent below 2005 levels by 2030.
- The European Union set up, known as "Fit for 55", the European Commission has asked all of its twenty seven member countries to chop emissions by fifty five per cent below 1990 levels by 2030.

- China conjointly proclaimed that it might become net-zero by the year 2060 which it might not enable its emissions to peak on the far side what they're in 2030.
- China accounts for associate degree calculable twenty fifth of world emissions.

### **Why does India object to net-zero emissions?**

- India is that the one opposing this target as a result of it's probably to be the foremost compact by it.
- Over following 2 to 3 decades, India's emissions square measure probably to grow at the quickest pace within the world, because it presses for higher growth to drag many several folks out of financial condition.
- No quantity of conversion or reclamation would be ready to catch up on the inflated emissions.
- The net-zero goals don't figure within the 2015 Paris Agreement, the new world design to fight global climate change. India has been difference that rather than gap up a parallel discussion on net-zero targets outside of the Paris Agreement framework, countries should specialise in delivering on what they need already secure in Paris Agreement.

### **Topic 23. THE ESSENTIAL DEFENCE SERVICES BILL 2021 AND THE TRIBUNALS REFORMS BILL 2021 WERE PASSED SEPARATELY BY**

## **VOICE VOTE**

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

The Essential Defence Services Bill, 2021 and therefore the Tribunals Reforms Bill, 2021 were passed individually by voice vote before the House was adjourned for the day as Opposition continuing with their suasion.

### **What is a voice vote?**

- A voice vote involves the speaker golf stroke an issue to the house and so asking the house to place forward its opinion within the kinds of ayes (yes) or noes.
- Based on a rough live of that facet was louder, the speaker decides if the motion was passed or fell through.
- The obvious advantage of a voice vote is that it's fast.
- The apparent disadvantage is that it's inaccurate, provided that the speakers decides what the opinion of the home is supported that facet is louder.
- A literal shouting match isn't the perfect thanks to conduct any serious business aside from in cases wherever option is therefore one sided, it's essentially a formality.
- Due to the present, prescript needs that if a voice vote is challenged by any member, the speaker should arouse a division.
- This once concerned the physical separation of legislators so a numeration of heads— a procedure still followed within the kingdom.
- But these days in Asian nation, this is often achieved by obtaining MPs and MLAs to vote electronically.
- The advantage of a division, of course, is that it tells the general public specifically what the vote count is.
- Moreover, it lets constituents savvy their MP or MLA voted.

- Adjournment Associate in Nursing adjournment suspends the add a sitting for a such that time, which can be hours, days or weeks. during this case, the time of refabrication is such that.
- An adjournment solely terminates a sitting and not a session of the House.
- The power of adjournment lies with the leader of the House. Adjournment trigonometric function Die Adjournment trigonometric function die suggests that terminating a sitting of Parliament for Associate in Nursing indefinite amount.
- In alternative words, once the home is adjourned while not naming on a daily basis for refabrication, it's known as adjournment trigonometric function die.
- The power of adjournment trigonometric function die lies with the leader of the House.
- Note: The leader of a House will decision a sitting of the House before the date or time to that it's been adjourned or at any time when the House has been adjourned circular function die.
- Provisions within the Tribunals Reform Bill 2021: the govt seeks to amend the Finance Act 2017 to incorporate provisions associated with the composition of search-cum-selection committees and also the term of workplace of members for nineteen tribunals (such as Customs, Excise, and repair Tax appellant Tribunal) within the Act itself.
- It seeks to empower the Central Government to form rules for qualifications, appointment, term of workplace, salaries and allowances, resignation, removal and different terms and conditions of service of Members of Tribunals.
- It provides that the president and Members of the Tribunals are appointed by the Central Government on the advice of a Search-

cum choice Committee.

- It additionally provides the composition of the Committee, to be headed by the judge of India or a decide of Supreme Court appointive by him.
- Search-cum-selection committee The committee that's accountable to advocate the names of the chairpersons and also the members for the appointment by the central government within the assembly is named the search-cum-selection committee.
- The composition of the committee as mentioned in the Tribunals Bill 2021 is: Chairperson – The Chief Justice of India, or a Supreme Court Judge nominated by him.
- He/she has the voting 2 secretaries – Central Government nominates them The sitting or outgoing president, or a retired Supreme Court choose, or a retired magistrate of a judicature The Secretary of the Ministry underneath that the assembly is ingrained.
- He/She has no voting right. Term of Office for the Tribunals Members **The Tribunals Reform Bill states the following term of office:** Chairperson – 4 years or till he attains the age of 70 years [Whichever is earlier] Remaining Members- 4 years or till they attain the age of 67 years [Whichever is earlier]
- The Essential Defence Services Bill, 2021
- The essential defence services include: Any institution or endeavor addressing the assembly of products or instrumentation needed for defence-related functions
- Any institution of the military or connected with them or defence.
- These additionally embody services that, if ceased, would have an effect on the protection of the institution engaged in such services or its staff.
- In addition, the govt. might declare any service as a vital defence service



if its halt would have an effect on the:

- (i) production of defence instrumentation or merchandise,
- (ii) operation or maintenance of business institutions or units engaged in such production, or
- (iii) repair or maintenance of product connected with defence. The Essential Defence Services Bill, 2021

- The new Bill permits the Central Government to ban strikes, lock-outs, and lay-offs in units engaged in essential defence services as per PRS Legislative analysis.
- The government could issue such order if necessary within the interest of: Sovereignty and integrity of India, Security of any state, Public, Public order, Decency, Morality
- The prohibition order can stay operative for 6 months and will be extended by another six months.
- Strikes and lock-outs that area unit declared once the difficulty of the prohibition order or those who had commenced before the prohibition order was issued are black.
- The prohibition won't apply to lay-offs created because of power shortage or natural catastrophe, or lay-offs of temporary or casual workmen. underneath the new Bill, a strike is outlined as surcease of labor by a body of persons acting along.
- It includes the subsequent underneath its purview: Mass casual leave, Coordinated refusal of any variety of persons to still work or settle for employment, Refusal to figure overtime, wherever such work is critical for the upkeep of essential defence services, the other conduct which ends up in, or is probably going to lead to, disruption of labor in essential defence services.
- The new Bill additionally amends the commercial Disputes Act, 1947 to

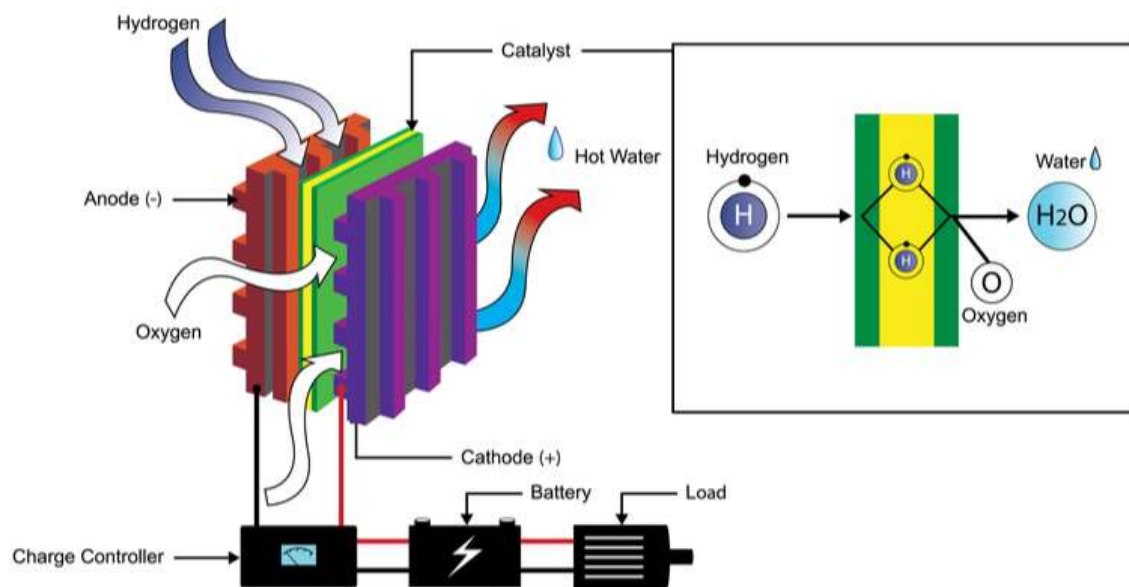
incorporate essential defence services underneath utility services. Under the Act, within the case of utility services, a six-week notice should be before: Persons utilized in such services go on strike in breach of contract; Employers carrying on such services do lock-outs.

- Employers violating the prohibition order through misappropriated lock-outs or lay-offs are penalised with up to annual imprisonment or Rs ten,000 fine or each.
- The punishment for illegal strikes Persons initiating or participating in illegal strikes will be punished with up to oneyear imprisonment or Rs 10,000 fine or both.
- Persons instigating, inciting, or taking actions to continue illegal strikes, or knowingly supplying money for such purposes, will be punished with up to two years imprisonment or Rs 15,000 fine, or both.
- Such an employee will be liable to disciplinary action including dismissal as per the terms and conditions of his service.
- In such cases, the concerned authority is allowed to dismiss or remove the employee without any inquiry, if it is not reasonably practicable to hold such inquiry.
- All offences punishable under the Bill will be cognisable and non-bailable.

## **Topic 24. HYDROGEN AS FUEL**

### ***Importance for Prelims: Science and Technology***

## Hydrogen Fuel Cells



Union fossil oil and gas & Steel Minister Shri Dharmendra Pradhan nowadays aforementioned that Asian nation is trying towards numerous colours to kick-start the chemical element system development.

- Hydrogen is a clean fuel that, when consumed in a fuel cell, produces only water.
- Hydrogen can be produced from a variety of domestic resources, such as natural gas, nuclear power, biomass, and renewable power like solar and wind.
- Hydrogen could be a versatile energy carrier which will be created from a large vary of sources and utilized in some ways across the whole energy sector.
- It may be created from Solar-driven processes victimization lightweight because the agent for atomic number

1 production Water may be separated into gas and hydrogen through a method known as electrolysis Biological processes use microbes like bacterium and microalgae and may manufacture H through biological reactions.

- In microorganism biomass conversion, the microbes break down organic matter like biomass or waste to provide H, whereas in image biological processes the microbes use daylight because the energy supply.
- Grey, Blue and green hydrogen When produced industrially from natural gas (which generates significant carbon emissions) it is known as “grey” hydrogen.
- (It is cheapest) When hydrogen is produced from natural gas but carbon emissions are captured and stored, or reused it is called “blue” hydrogen.
- (price is influenced both by natural gas and carbon capture and storage) The cleanest one of all is “green” hydrogen, which is generated by renewable energy sources without producing carbon emissions in the first place.
- Steps by India The Hydrogen RoundTable on “Hydrogen Economy: New Delhi Dialogue – 2021”, Union Petroleum and Natural Gas & Steel Minister said that in India, various initiatives with respect to the greater use of hydrogen in India’s energy mix.
- Government of Bharat recently proclaimed the National atomic number 1 Mission within the Union Budget 2021 for creating a atomic number 1 roadmap for the country.
- In the past six years, Bharat has exaggerated its renewable power portfolio from thirty two GW to virtually a hundred GW.
- We area unit well on the right track to realize 450 GW target of renewable energy generating capability by 2030, The fossil oil sector is that the largest producer of atomic number 1 for varied industrial

plant method operations.

- Hydrogen is additionally capable of orientating with the Ministry's different flagship schemes, just like the promotion of compressed biogas underneath the property various for reasonable towards Transportation (SATAT) theme or promoting the gas-based economy or alternative initiatives on Waste-to-Energy The refineries square measure aiming to leverage the on the market surplus atomic number 1 capacities in grey type for meeting the initial demand in mainstreaming atomic number 1.
- One of such comes is afoot at our Gujarat works of Indian Oil whereby the mix of atomic number 1 production through gas and its hyphenation with the carbon capture technology can lead to the assembly of blue atomic number 1.
- Multiple buses hopped-up by fuel cells are covering varied painting routes. Efforts square measure afoot to leverage the large CNG pipeline infrastructure to scale back the transportation value of atomic number 1.
- property various towards reasonable Transportation Sustainable various towards reasonable Transportation (SATAT) is associate degree initiative aimed toward putting in of Compressed Bio-Gas production plants and create it obtainable within the marketplace for use in automotive fuels by tantalizing Expression of Interest from potential entrepreneurs.
- The initiative was launched in Oct 2018 by the Ministry of crude & fossil fuel in association with Public Sector enterprise (PSU) Oil selling firms (OMC) viz. Indian Oil Corporation Ltd., Asian nation crude Corporation Ltd. and geographical area crude Corporation

Ltd. Compressed Bio-Gas (CBG) plants are planned to be set up with wind of principally through freelance entrepreneurs.

- CBG created at these plants are transported through cascades of cylinders to the fuel station networks of OMCs for selling as an inexperienced transport fuel various.
- The 1,500-strong CNG stations network within the country presently serves about thirty two large integer gas-based vehicles.
- The entrepreneurs would be ready to individually market the opposite by-products from these plants, as well as bio-manure, carbon-dioxide, etc., to reinforce returns on investment.
- These plants are expected to provide fifteen million tonnes of CBG each year, that is regarding four-hundredth of current CNG consumption of forty four million tonnes each year within the country.
- At Associate in Nursing investment of approx. Rs. 1.7 lakh crore.

### **Topic 25. 50% OF FUNDS ALLOTTED FOR ONGOING MPLADS PROJECTS LAPSE**



## Importance for Prelims: Polity

### Dire straits

Spending under MPLADS had already halved before the government suspended the scheme for two years on April 6, 2020 and diverted the funds to manage COVID-19

■ On March 16, 2021, the Standing Committee on Finance (SCF) seeks funds to finish ongoing MPLADS projects. Department of Expenditure allots **₹2,200 crore** on the same day

■ On March 22, the amount was transferred to Statistics Ministry with a caveat that it be exhausted by March 31

■ **₹1,107.5 crore** utilised till March 31; balance of **₹1,092.5 crore** lapses

Unable to comprehend why ₹2,200 crore was allotted barely one week before the end of FY 2020-21  
SCF REPORT

Virtually half the tardy tardy,200 large integer assigned for finishing the continuing MPLADS comes in 2020-21 merely nonchurchgoing, because the Finance Ministry granted “barely a week” to the Ministry of Statistics and Programme Implementation (MoSPI) to unleash the funds — tantalising the ire of the committee on Finance.

- The MPLADS could be a arrange theme totally funded by Government of Republic of India. The annual MPLADS fund claim per MP body is Rs. 5 crore.
- MPs ar to advocate per annum, works cost accounting a minimum of fifteen per cent of the MPLADS claim for the year for areas populous by regular Caste population and seven.5 per cent for areas populous by S.T. population.
- Works beneath the scheme: Works, organic process in nature, based on locally felt wants and perpetually obtainable for the employment of the

general public at giant, area unit eligible underneath the theme.

- Preference underneath the theme is given to works concerning national priorities, like provision of drink, public health, education, sanitation, roads, etc.
- Release of Funds: Funds area unit discharged within the sort of grants in-aid on to the district authorities.
- The funds discharged underneath the theme area unit non-lapsable.
- The liability of funds not discharged in a very explicit year is carried forward to the next years, subject to eligibility.
- Execution of works: The MPs have a recommendatory role underneath the theme.
- They suggest their alternative of works to the involved district authorities World Health Organization implement these works by following the established procedures of the involved regime.
- The district authority is authorised to look at the eligibility of works sanction funds and choose the implementing agencies, grade works, supervise overall execution, and monitor the theme at the bottom level.
- Recommendation of works: The Lok Sabha Members will suggest works in their several constituencies.
- The elective members of the Rajya Sabha will suggest works anyplace within the state from that they're elective .
- Nominated members of the Lok Sabha and Rajya Sabha might choose works for implementation anyplace within the country.
- Standing Committee on Finance (SCF), had asked the govt. to unleash MPLADS funds due from previous years for comes already sanctioned.

- On March sixteen this year, AN SCF report on the Statistics Ministry's demands for grants recognized that several MPLADS comes that began earlier were "left unfinished midway despite the sanction letters being issued and funds for identical were withheld", citing the suspension of the scheme

## **Topic 26. RARE DISEASES CROWD-FUNDING**

*Importance for Prelims: Science*

After being pulled up by the Delhi High Court, the Centre on Wednesday said that it has operationalized a digital platform for crowd-funding for expensive treatment for rare diseases among children.

- The portal, <http://rarediseases.aardeesoft.com> has operationalized by the central government a digital platform for crowd-funding for expensive treatment for rare diseases among children.
- The Rare Diseases Policy the Rare Diseases Policy aims to lower the high value of treatment for rare diseases with multiplied target autochthonic analysis with the assistance of a National syndicate to be got wind of with Department of Health analysis, Ministry of Health & Family Welfare as convenor.
- Increased focus of analysis and development and native production of medicines can lower the value of treatment for rare diseases.
- The policy conjointly envisages creation of a national hospital based mostly register of rare diseases in order that adequate information is on the market for definition of rare diseases and for analysis and development associated with rare diseases among the country.
- The Policy conjointly focuses on early screening and interference through primary and secondary health care infrastructure like Health and wellbeing Centres and District Early Intervention Centres (DEICs) and thru content for the bad folks.
- Screening will be supported by NidanKendras got wind of by Department of Biotechnology.
- Policy also aims to strengthen tertiary health care facilities for prevention and treatment of rare diseases through designating 8 health facilities as Centre of Excellence and these CoEs will also be provided one-time financial support of up to Rs 5 crores for upgradation of diagnostics facilities.

- A provision for resource up to Rs. twenty lakhs beneath the Umbrella theme of Rastriya Arogya Nidhi is planned for treatment, of these rare unwellnesss that need a one-time treatment (diseases listed beneath cluster one within the rare disease policy).
- **Example of Rare Diseases:** Lysosomal Storage Disorders (LSD), Pompe disease, cystic fibrosis, muscular dystrophy, spina bifida, haemophilia etc.
- India has close to 50-100 million people affected by rare diseases or disorders, the policy report said almost 80% of these rare condition patients are children and a leading cause for most of them not reaching adulthood is due to the high morbidity and mortality rates of these life-threatening diseases.

## **Topic 27. THE SAMAGRA SHIKSHA SCHEME**

### ***Importance for Prelims: Government Schemes***



The Centre plans to pay students their Right to Education (RTE) entitlements within the kind of money transfers as a part of a revamp and extension of its flagship faculty education theme that was approved by the cupboard on weekday.

- The Samagra Shiksha theme, that has been extended until March 2026, can have a money outlay of ₹2.94 100000 large integer, together with a Central share of ₹1.85 100000 large integer, and several other new initiatives on infancy education, foundational accomplishment, and acquisition and language education.
- The Union Budget, 2018-19, has projected to treat faculty education holistically while not segmentation from pre-nursery to category twelve.
- Samagra Shiksha – Associate in Nursing overarching programme for the varsity education sector extending from pre-school to category twelve has been, therefore, ready with the broader goal of up faculty effectiveness measured in terms of equal opportunities for schooling and just learning outcomes.

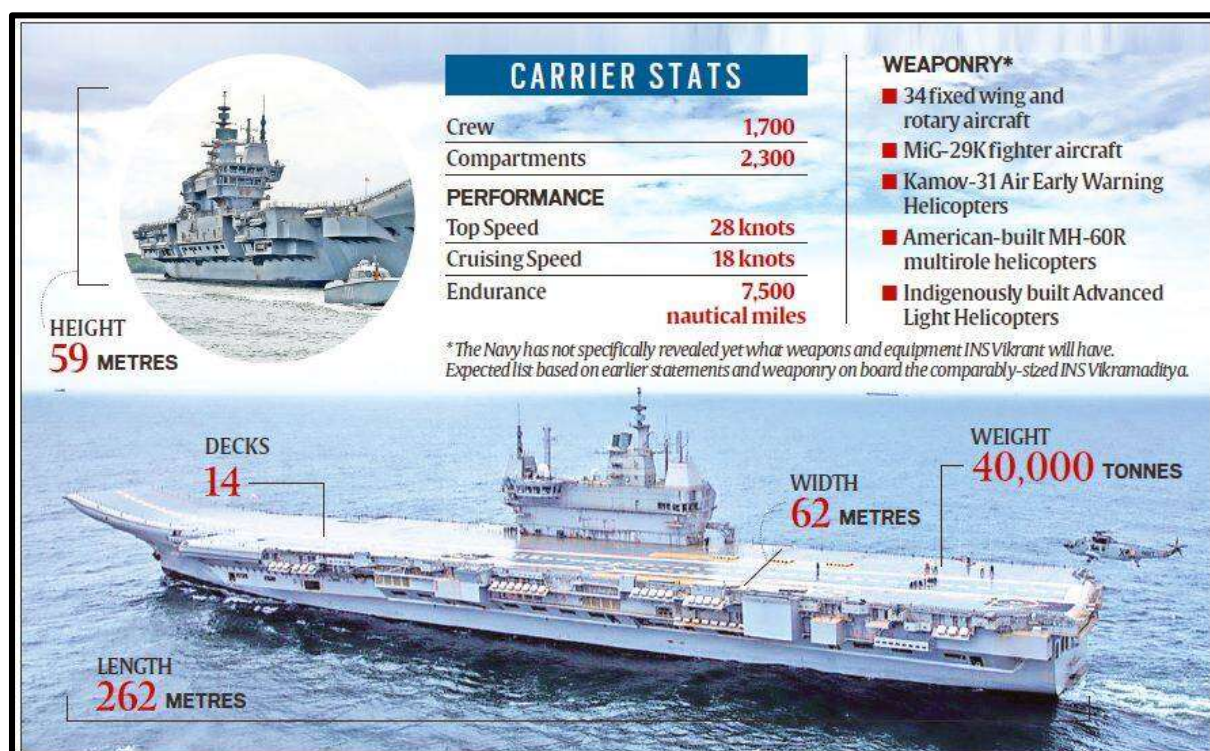


- It subsumes the 3 schemes of Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE).
- This sector-wide development programme/scheme would additionally facilitate harmonise the implementation mechanisms and group action prices the least bit levels, The fund sharing pattern for the theme between Centre and States is at the moment within the magnitude relation of 90:10 for the eight North-Eastern States and three range of mountains States viz. Jammu & Kashmir, Himachal Pradesh and Uttarakhand and 60:40 for all different States and Union Territories with legislative assembly.
- It is 100% centrally sponsored for Union Territories while not legislative assembly.
- The main stress of the theme is on rising quality of faculty education by focusing on the 2 T's – Teacher and Technology.
- The strategy for all interventions below the theme would be to boost the training Outcomes the least bit levels of schooling.
- Support 'Operation Digital Board' altogether secondary faculties over a amount of five years, which can revolutionize education- simple to know, technology primarily based learning school rooms can become flipped school rooms Preference to Educationally Backward Blocks (EBBs), LWE affected districts, Special Focus Districts (SFDs), Border areas and therefore the 117 aspirational districts known by Niti Aayog protection coaching for ladies from higher primary to senior secondary stage Allocation for uniforms, textbooks below the RTE Act, Allocation for youngsters with Special desires (CwSN) hyperbolic.
- This single theme can change the SCERT to become the nodal agency for conduct and observation of all in-service coaching programmes to create it need-focused and dynamic.

- The theme are going to be enforced as a Centrally Sponsored theme by the Department through one State Implementation Society (SIS) at the State/UT level.
- At the National level, there would be a Governing Council headed by Minister of Human Resource Development and a Project Approval Board (PAB) headed by Secretary, Department of faculty Education and accomplishment.
- The Governing Council are authorized to switch monetary and programmatic norms and approve the elaborate tips for implementation inside the Framework of the scheme

## **Topic 28. IAC-1**

## Importance for Prelims: Defence



The autochthonal flattop (IAC) one, which is able to be known as INS Vikrant once it enters service with the Indian Navy a couple of year from currently, started ocean trials — one in all the last phases of trials on Wednesday.

- ✓ The INS Vikramaditya, presently the Navy's solely flattop that was commissioned in 2013, started because the Soviet-Russian Admiral Gorchakov.
- ✓ The country's 2 earlier carriers, INS Vikrant and INS Viraat, were originally the British-built HMS Hercules and HMS Greek deity before being commissioned into the Navy in 1961 and 1987 severally.
- ✓ Asian country's earlier attack {aircraft carrier|warship|war vessel|combat ship}s were either designed by country or the Russians IAC-1 this can be the primary aircraft carrier designed and in-built India.
- ✓ An flattop is one in all the foremost potent marine assets for a nation, which reinforces a Navy's capability to travel faraway from its home shores to hold out air domination operations.

- ✓ An warship typically leads because the warship of a carrier strike/battle cluster.
- ✓ As the carrier could be a valuable and generally vulnerable target, it's sometimes escorted within the cluster by destroyers, missile cruisers, frigates, submarines, and provide ships. IAC-1 has been designed by the Indian Navy's board of directors of military service style (DND), and is being engineered at cochin china work restricted (CSL), a public sector work below the Ministry of Shipping.
- ✓ Only 5 or league presently have the potential of producing AN warship it's thought-about to be one among the foremost advanced and complicated battleships within the world.
- ✓ According to the Navy, over seventy six per cent of the fabric and instrumentality on board IAC-1 is autochthonal.
- ✓ This includes twenty three,000 tonnes of steel, 2,500 metric linear unit of electrical cables, one hundred fifty metric linear unit of pipes, and 2,000 valves, and a large vary of finished product as well as rigid hull boats, galley instrumentality, air-conditioning and refrigeration plants, and gear mechanism.
- ✓ The warship will offer an “incomparable military instrument with its ability to project Air Power over long distances, including Air Interdiction, Anti-Surface Warfare, offensive and defensive Counter-Air, Airborne Anti-Submarine Warfare and Airborne Early Warning”.
- ✓ The Navy aforementioned that IAC-1 are “the most potent sea-based asset”, which is able to operate the Russian-made MiG-29K plane and Kamov-31 Air Early Warning Helicopters, each of that ar already in use on the Vikramaditya.
- ✓ The new Vikrant will also operate the soon-to-be-inducted MH-60R

Seahawk multirole helicopter manufactured by the American aerospace and defence company Lockheed Martin, and the Advanced Light Helicopter (ALH) built by Bengaluru-based Hindustan Aeronautics Ltd.

- ✓ INS Vikrant INS Vikrant, a Majestic-class 19,500-tonne warship, was the name of India's much-loved first aircraft carrier, a source of immense national pride over several decades of service before it was decommissioned in 1997.
- ✓ India nonheritable the Vikrant from the uk in 1961, and also the carrier compete a stellar role within the 1971 war with West Pakistan that light-emitting diode to the birth of East Pakistan.
- ✓ The Vikrant was deployed within the Bay of geographic region, and its 2 air squadrons of ocean Hawk fighter jets and Alize police work craft were utilized in strikes on ports, businessperson ships, and different targets, and to forestall Pakistani forces from escaping through maritime routes.
- 20+ years in creating 1999:
- ✓ Project 'P71' to build Air Defence Ship (ADS) cleared 2003:
- ✓ Aircraft Carrier project gets government nod 2006:
- ✓ Navy says ADS changed to Indigenous Aircraft Carrier 2009:
- ✓ Keel laid 2011:
- ✓ Floated out of dry dock 2013:
- ✓ Launched Nov 2020:
- ✓ Harbour and basin trials completed Aug 2021:
- ✓ Sea trials begin Next:
  - Shipbuilder can continue ocean trials over following 6-7 months; then pass on IAC-1 to Navy for trials August 2022: Expected to be commissioned.
  - Trials of craft and part elements can follow.



- Navy officers imply that notwithstanding India provides the IAC-2 project the go-ahead currently, it'll be over ten years before the military vehicle is commissioned.



## **Topic 29. LOK SABHA PASSES AIR QUALITY COMMISSION BILL FOR NCR ADJOINING AREAS**

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

The Lok Sabha on Wednesday passed the Bill to formalize the Commission for Air Quality Management for capital Region and contiguous Areas. regarding the Bill:



- Commission for Air Quality Management for National Capital Region would be a 'permanent' body to address pollution in the National Capital Region Delhi and address sources of pollution in Delhi, Punjab, Rajasthan, Haryana and Uttar Pradesh.
- It additionally dissolved the setting Pollution bar and management Authority established within the NCR in 1998.
- While the Central Pollution electrical device (CPCB) and its State branches have the powers to implement provisions of the setting Protection Act for air, water and land pollution, just in case of dispute or a clash of jurisdictions, the Commission's instrument would prevail specific to matters regarding pollution.
- The government has decriminalized the act of stubble burning, an important contributor to noxious air quality.
- However, environmental compensation fees square measure levied on those that square measure found to be engaged in stalk burning, together with farmers.
- The all-powerful body assumed several powers to coordinate action among States, levy fines ranging up to ₹1 crore or five years of prison to address air pollution.
- **Composition:** Full time chairperson Members consist of both representatives from several Ministries as well as independent experts

from the Central Pollution Control Board (CPCB), Indian Space Research Organization (ISRO) and Civil Society.

- **Powers:** The new body will have the power to issue directions and entertain complaints as it deems necessary for the purpose of protecting and up the standard of the air within the NCR and conterminous areas.
- It can lay down parameters for management of pollution (such as permissible levels of emissions and discharge of pollutants).
- It are accountable of distinctive violators, observance factories and industries and the other polluting unit within the region, and can have the powers to clean up such units.
- It can have the powers to decree directives issued by the state governments within the region which will be in violation of pollution norms.

### **Topic 30. BIOLOGICS & BIOSIMILAR DRUGS**

## Importance for Prelims: Science and Technology

Similar design	
	
BIOLOGIC	BIOSIMILAR
Novel therapeutic	Competitive Bioequivalence
15 years to develop	8-10 years to develop
\$1.2 Billion cost	\$100-200 Million cost
Patentable	Non-patentable
Reference Price	Reduced price

Aurobindo drug company is functioning on commercialising a multipeptide-based Covid immunizing agent, together with US-based Company Vaxxinty.

- Biologics after you think about medicine you frequently think about chemical compounds like analgesic, a pill that you simply will develop from your native pharmacy or grocery.
- Biologic drugs are different.
- They are proteins made by living organisms, whereas traditional drugs are chemicals, referred to as small molecules.
- Biologic drugs are much larger in size than “small molecule drugs” like

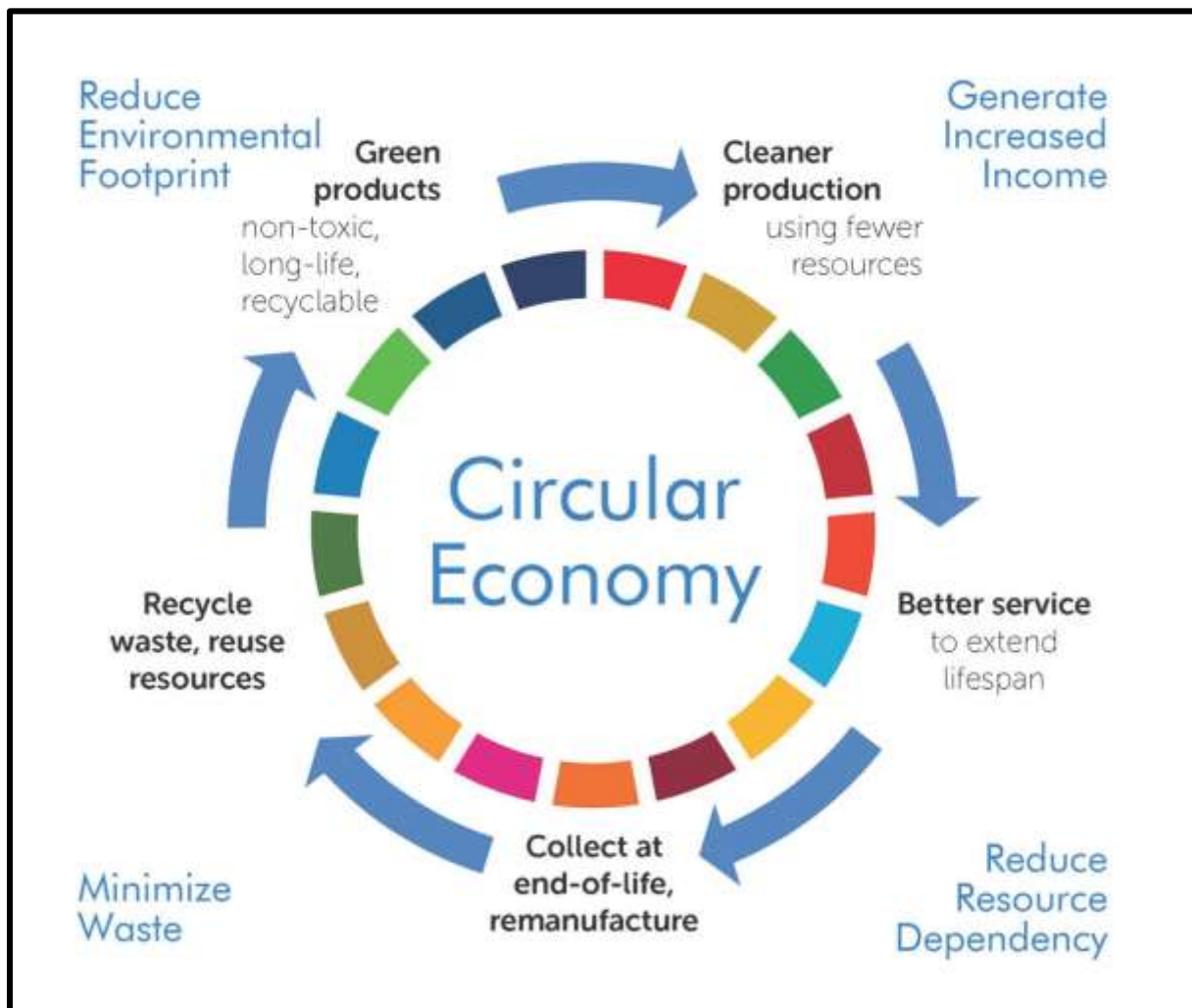
aspirin.

- Biologics or biological products are medicines made from living organisms through extremely complicated producing processes and should be handled and administered underneath rigorously monitored conditions.
- Biologics embody a large form of merchandise like factor and cell therapies, therapeutic proteins, being antibodies, and vaccines.
- Biologics are used to prevent, treat or cure a variety of diseases including cancer, chronic kidney disease, diabetes, cystic fibrosis, and autoimmune disorders.
- Biosimilar A biosimilar is , it's a biological that's "similar" to a different biological medication (known as a reference product), Biosimilars area unit extremely just like the reference product in terms of safety, purity and efficiency, however could have minor variations in clinically inactive elements.
- Biosimilars are not new drugs, but rather they are copies of biologic drugs that have been used to treat many diseases and conditions.
- Familiar biologic drugs include widely prescribed therapies like etanercept, infliximab, adalimumab and others.
- Each biosimilar is made using the same amino acid starting materials and the same precise, step-by-step processes as its reference drug a well-tested, widely used biologic drug that's already been on the market for years.
- All biosimilars area unit pharmaceuticals. Biosimilars as type of like generic medication not true, since biosimilars aren't utterly identical copies of their reference medication.
- Biosimilars use the precise same beginning materials and similar producing processes because the original biological.

- They are unit designed and developed to be extremely just like the first drug upon that they're primarily based, and that they won't be approved as a biosimilar if they're not.
- They're manufactured from biological materials (bio-) Associate in Nursing unit extremely just like an approved, widely tested, and prescribed biologic.

### **Topic 31. CIRCULAR ECONOMY**

## Importance for Prelims: Environment



After the pandemic, we want to shift towards a circular economy during which waste and pollution square measure aloof from the system.

### What is a circular economy?

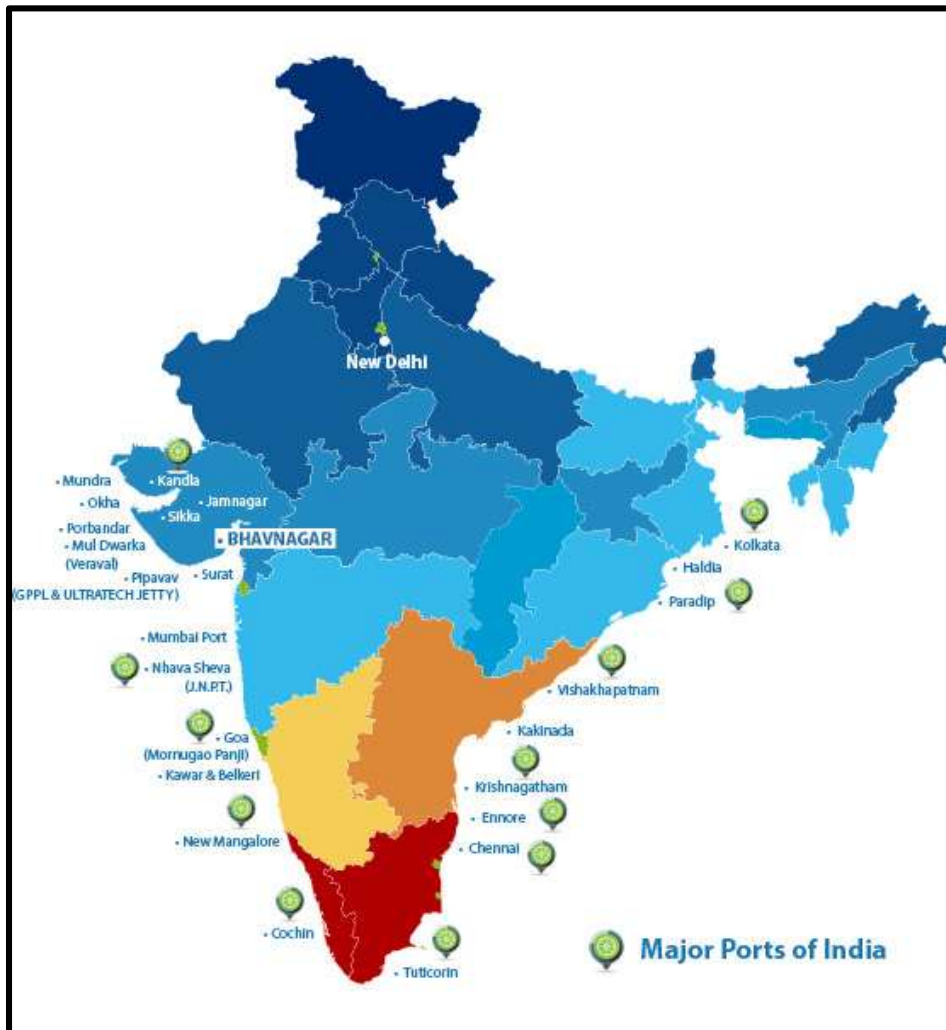
- It is an economic system aimed at eliminating waste; and the continual use of resources.
- It includes 3 R's (Reduce, Reuse and Recycle), Refurbishment, Recover, and Repairing of materials.
- Consumables in the circular economy are largely made of biological ingredients that are non-toxic and possibly even beneficial, and can safely be returned to the biosphere, either directly or in a cascade of consecutive uses.



- It is an alternate to a standard linear economy.
- This linear economy is modeled on the take-make-waste industrial model (make, use, dispose).
- Circular economy aims to design out waste. Sustainable Development Goal 12 → responsible consumption and production → requires changing the linear production model and shifting towards circular economy.
- The circular economy has the potential to increase productivity and create jobs, whilst reducing carbon emissions and preserving valuable raw materials.
- **Example:** The ‘For Days’ model US clothing firm For Days was inspired by the volume of clothing hoarded in consumer wardrobes.
- ‘For Days’ encourages customers to send their recent garments within the post.
- It doesn’t matter whether or not they were created by For Days within the 1st place, and folks receive money-off vouchers for brand new things reciprocally.
- Circular Economy in India: The Ministry of physics and data Technology (MeitY) has developed a policy paper on “Circular Economy in physics and Electrical Sector” to wear down e-waste.
- The patent certificate is issued recently to KVIC’s Kumarappa National handmade Paper Institute (KNHPI) by the Controller of Patent for The plastic-mixed handmade paper developed below Project REPLAN (REducingPLAstic from Nature).

## Topic 32. MAJOR AND MINOR PORTS

## Importance for Prelims: Geography



Adani Ports and Special Economic Zone (APSEZ) is consideration the acquisition of Karaikal and Gopalpur ports About APSEZ:

- Adani Ports and Special Economic Zone Limited is India's largest private multiport operator. APSEZ represents a large network of ports with India's largest SEZ at Mundra.
- **Major Ports in India:** India has 12 major seaports and 200 notified minor and intermediate ports that handle a huge volume of traffic.
- About ninety five per cent by volume and seventy per cent by price of India's total international trade area unit carried on through maritime transportation.

- All major ports, except one Ennore Port are government administered. It is the first port in India which is a public company.
- The Government of Asian nation plans to modernise these ports and has approved a project known as Sagarmala. Asian nation may be a signer to Hong Kong International Convention for the safe and environmentally sound utilization of ships.
- Largest Port in ocean|Arabian Sea|sea} –NhavaSheva Port (Maharashtra)  
Largest Port in Bay of Bengal- urban center Port (Tamil Nadu) Madras has the most variety of major sea ports in Asian nation.
- Port Anthony Charles Lynton Blair was notified as a significant port in 2010 however was removed of its standing recently.
- Major Ports of Asian nation include: Minor Ports: As per the Indian Constitution the maritime transport comes below the coincidental list.
- The ports are therefore either below the management of the Central government or the regime.
- The Central Shipping Ministry controls and supervises the major ports, whereas the minor ports and intermediate are managed by the state government's maritime board.
- The increase in private sector participation has resulted in an increase in the number of minor ports.
- Cargo traffic handled by the minor ports has exceeded cargo traffic at major ports.
- **Some of the important minor ports are:**
  - Azhikkal Port (Mouth of Valapattanam River Kerala)
  - Kannur (Kerala) Kundapur (Udupi District Karnataka)
  - Dahej (Gujarat)
  - Jafraabad (Gulf of Cambay Gujarat)
  - Kasargod (Kerala)

- Karaikal (Puducherry)
- Gopalpur (Odisha)

### **Topic 33. ANTI-DUMPING DUTY**

## Importance for Prelims: Economy



The board General of Trade Remedies has counseled that the present antidumping duties on import of ceramic ware and kitchen utensil (excluding knives and bathroom things) from China ought to be extended to imports of comparable things from Malaya likewise because it has established that Chinese items square measure being routed through Malaya to avoid the penal duties

- It has been found that the ceramic tableware and kitchenware being produced in China were just “incrementally” being processed in Malaysia and then being exported to Asian nation, declared as originating in Asian nation to avoid payment of antidumping duty AN protective tariff could be a proponent tariff that a domestic government imposes on foreign imports that it believes are priced below honest market price.
- Dumping is a process where a company exports a product at a price lower than the price it normally charges in its own home market.
- For protection, many countries impose stiff duties on products they believe are being dumped in their national market, undercutting local businesses and markets.
- Countervailing Duties (CVDs) are tariffs levied on foreign merchandise to offset subsidies created to producers of those merchandise within the commercialism country.
- CVDs are meant to level the playing field between domestic producers of a product and foreign producers of constant product WHO will afford to sell it at a cheaper price attributable to the grant they receive from their government.
- Director General of Trade Remedies the board General of Trade Remedies (earlier referred to as board General of Anti-dumping Associate in Nursingd Allied Duties) was named in might 2018 as an integrated single window agency for providing comprehensive and swift trade psychoanalytic process in Asian nation.
- Earlier, the board General of Anti-dumping and Allied Duties (DGAD) forbidden anti-dumping and CVD cases, board General of Safeguards (DGS) forbidden safeguard measures and

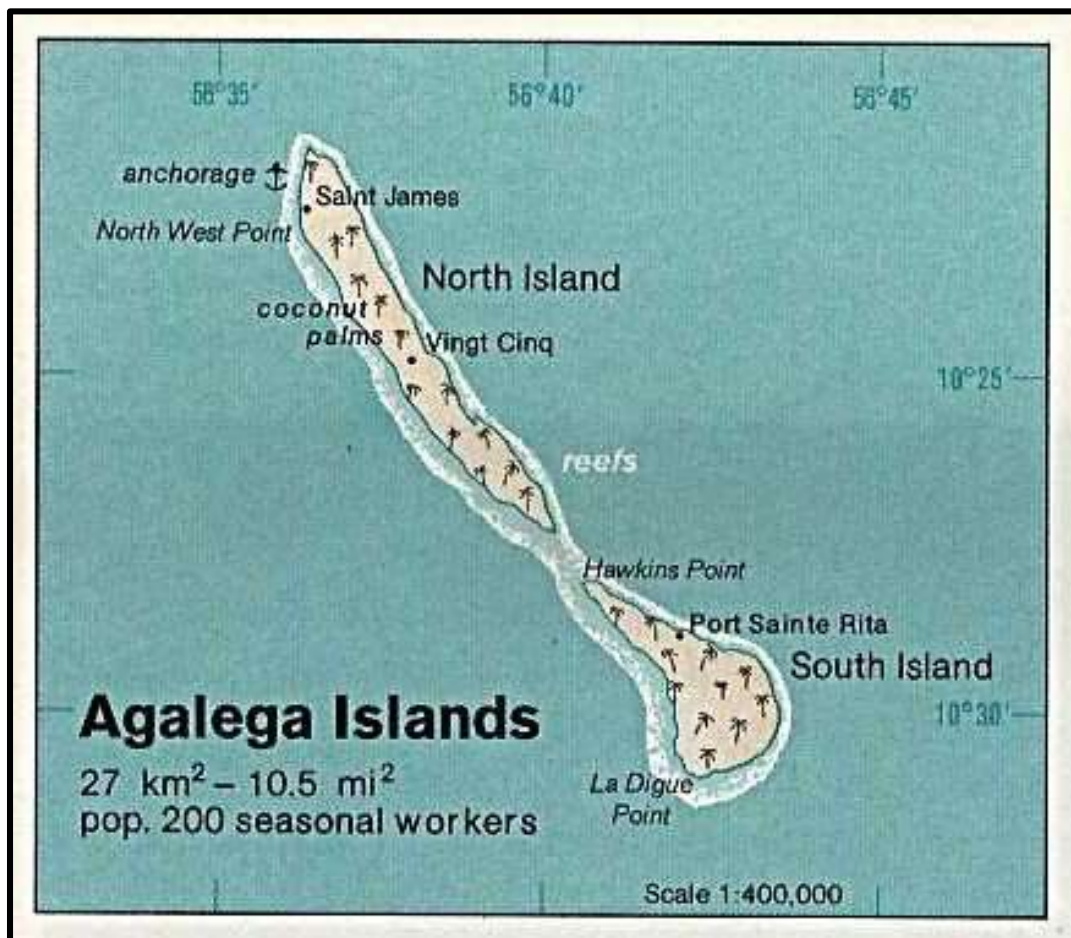


DGFT forbidden quantitative restriction (QR) safeguards.

- The DGTR brings DGAD, DGS and Safeguards (QR) functions of DGFT into its fold by merging them into one single national entity.
- DGTR now deals with Anti-dumping, CVD and Safeguard measures.
- It also provides trade defence support to our domestic industry and exporters in dealing with increasing instances of trade remedy investigations instituted against them by other countries.
- DGTR provides A level enjoying field to the domestic business against the adverse impact of the unfair trade practices like selling and unjust subsidies from any mercantilism country, by exploitation Trade Remedial strategies below relevant framework of international organization arrangements, Customs Tariff Act & Rules and different relevant laws and International agreements, during a clear and time certain manner.
- The anti-dumping duties will be applicable once they are notified by the Finance Ministry.
- DGTR functions as an attached office of Department of Commerce, Ministry of Commerce and Industry.

### **Topic 34. Island of Agalega**

## Importance for Prelims: Mapping



Mauritius has denied a report that it's allowed Asian country to make a military base on the remote island of Agalega, with a government official telling AFP that no such agreement exists between the 2 nations

- The small, remote Mauritian island of North Agalega, located in the south-western Indian Ocean, 1,122 kilometres north of Mauritius North Agalega Island is some 12 kilometres long and 1.5 kilometres wide, with a total population of less than 300 people.
- There is an MoU between the governments of Mauritius and India to develop the Agaléga islands and resolve infrastructural problems faced by Agaleans.
- The jetty and port facilities India is constructing. A port is being constructed at the north end of the island.

- This development is a manifestation of Modi's 2016 vision for the Indian Ocean, articulated as Security and Growth for All in the Region (SAGAR).
- Under SAGAR, New Delhi aims to work together with Indian Ocean regional governments to "engineer virtuous cycles of cooperation".
- The Chagossian experience the people were forcibly removed from the Chagos Archipelago in the early 1970s to make way for the joint UK-US military base on Diego Garcia – sound alarms for ethnic Creole Agaléens and their supporters.
- The 1965 call by kingdom to separate the Chagos Islands from Mauritius and found out a joint military base with the u. s. on Diego Garcia, the most important of the isles.
- The decades-old move has sparked protests by Chagossians, United Nations agency accuse Associate in Nursingd Northern Ireland|kingdom} of winding up an "illegal occupation" and riddance them from their country of origin.
- Britain insists the islands belong to London and has revived a lease agreement with the u. s. to use Diego Garcia till 2036.
- Diego Garcia contend a strategic role throughout the conflict, so as associate airbase, together with throughout the war in Afghanistan.

### **Topic 35. SUNSET CLAUSE OF THE ESSENTIAL DEFENCE**

## **SERVICES BILL 2021**

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

The Essential Defence Services Bill, 2021, passed within the Rajya Sabha on Th doesn't acquire result unless it's invoked and is in situ for under one year, a defence official aforesaid. The Defence Services Bill can lapse once a year' Right to protest stays, says defence official

- The Essential Defence Services Bill, 2021 was promulgated to prevent the employee unions of the Ordnance Factory Board (OFB) from going on strike against the corporatisation plan that was announced.
- “There is a sunset clause introduced in Clause 1 as an amendment.
- It is applicable only for one year, after which it will lapse.
- It doesn't acquire result by default.
- Employees have the right to peaceful protest.
- The Bill also did not violate the International Labour Organisation convention.
- It was meant to make sure uninterrupted offer to the Services, that was “especially essential within the current state of affairs. sunset provision A provision {in a|during a|in associate exceedingly|in a very} Bill that offers it an termination date once it's passed into law.
- Sunset clauses ar enclosed in legislation once it's felt that Parliament ought to have the possibility to determine on its deserves once more once a hard and fast amount.
- Sunset provision, or sunset law, is a clause in a statute, regulation, or similar piece of legislation that expires automatically.
- A sunset provision provides for an automatic repeal of the entire or sections of the law once a specific date is reached.
- Once the sunset provision date is reached, the items of legislation mentioned within the clause area unit rendered void.

- If the government wishes to extend the length of time for which the law in question will be in effect, it can push back the sunset provision date any time before it is reached.

### **Topic 36. PM-DAKSH**

### ***Importance for Prelims: Government Schemes***

Union Minister for Social Justice and direction Dr. Virendra Kumar can launch 'PM-DAKSH' Portal and 'PM-DAKSH' Mobile App on seventh August, 2021 at Nalanda area, Dr. Ambedkar International Centre, Delhi.

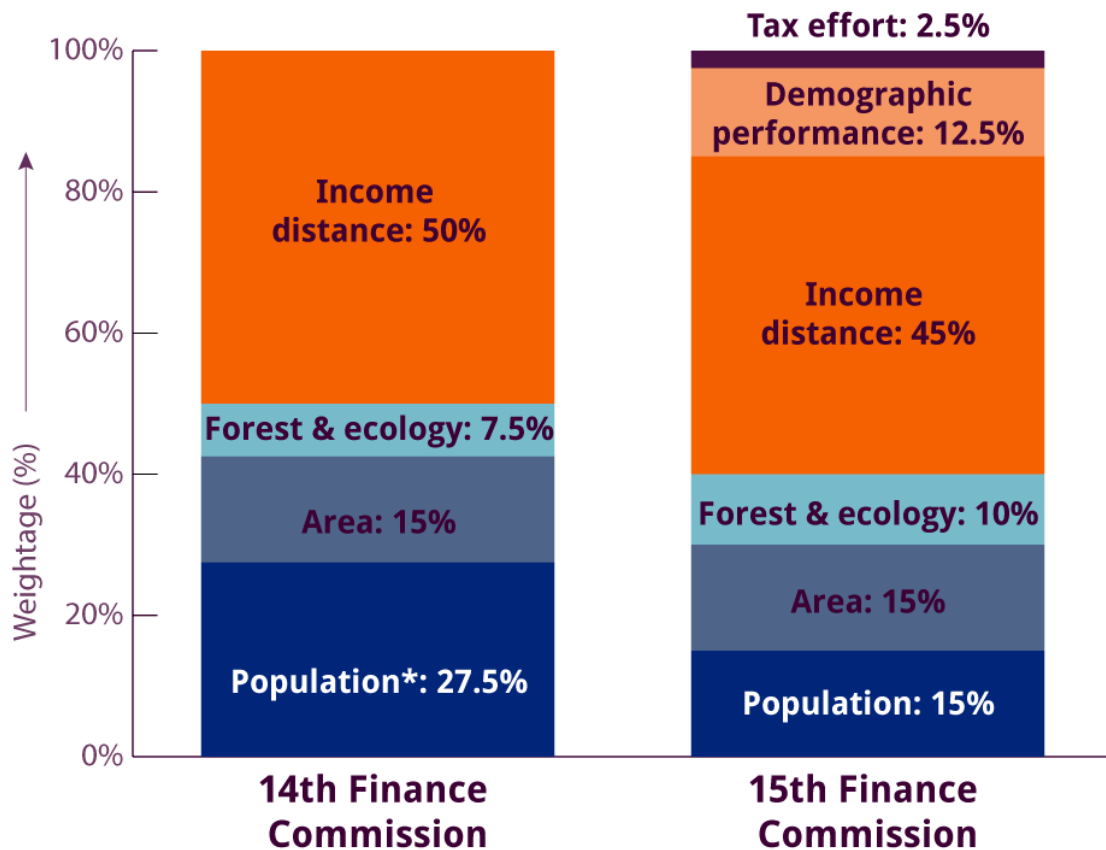
- PM-DAKSH' Portal can build all data associated with ability development programmes, provided underneath Pradhan Mantri Dakshta Aur Kushalta Sampann Hitgrahi (PM-DAKSH) Yojana, offered at one place for scheduled Castes, Backward categories and SafaiKaramcharis.
- The Ministry of Social Justice and Empowerment, in collaboration with NeGD, has developed this portal and app to make the skill development schemes accessible to the target groups of Backward Classes, Scheduled Castes and SafaiKaramcharis.
- By the virtue of this initiative the youth of the target teams can currently be able to avail the advantages of ability development coaching programmes additionally.
- The Pradhan MantriDakshtaAurKushaltaSampannHitgrahi (PM-DAKSH) Yojana is being enforced by the Ministry of Social Justice and management from the year 2020-21.
- Under this Yojana, eligible target group are being provided skill development training programmes on Up-skilling/Re-skilling Short Term Training Programme Long Term Training Programme and Entrepreneurship Development Program (EDP).

### **Topic 37. STATE FINANCE COMMISSION**



## Importance for Prelims: Polity

### Revenue-sharing formulas in the 14th and 15th Finance Commissions



The Covid crisis has stretched State finances by impacting each GST and cess collections. This, together with the upcoming finish of GST compensation in July 2022, has forced States to seek alternative revenue choices. Hence, states should raise non-tax revenues. Therefore, strengthening State Finance Commissions can facilitate

- Under Article 243-I of the Constitution of Bharat, the governor of a state is needed to represent a Finance Commission each 5 years.
- This is so as to choose the resource allocation between the government and therefore the Panchayati dominion establishments.
- Article 243-Y additionally brought town councils or

municipalities beneath the reach of the State Finance Commission.

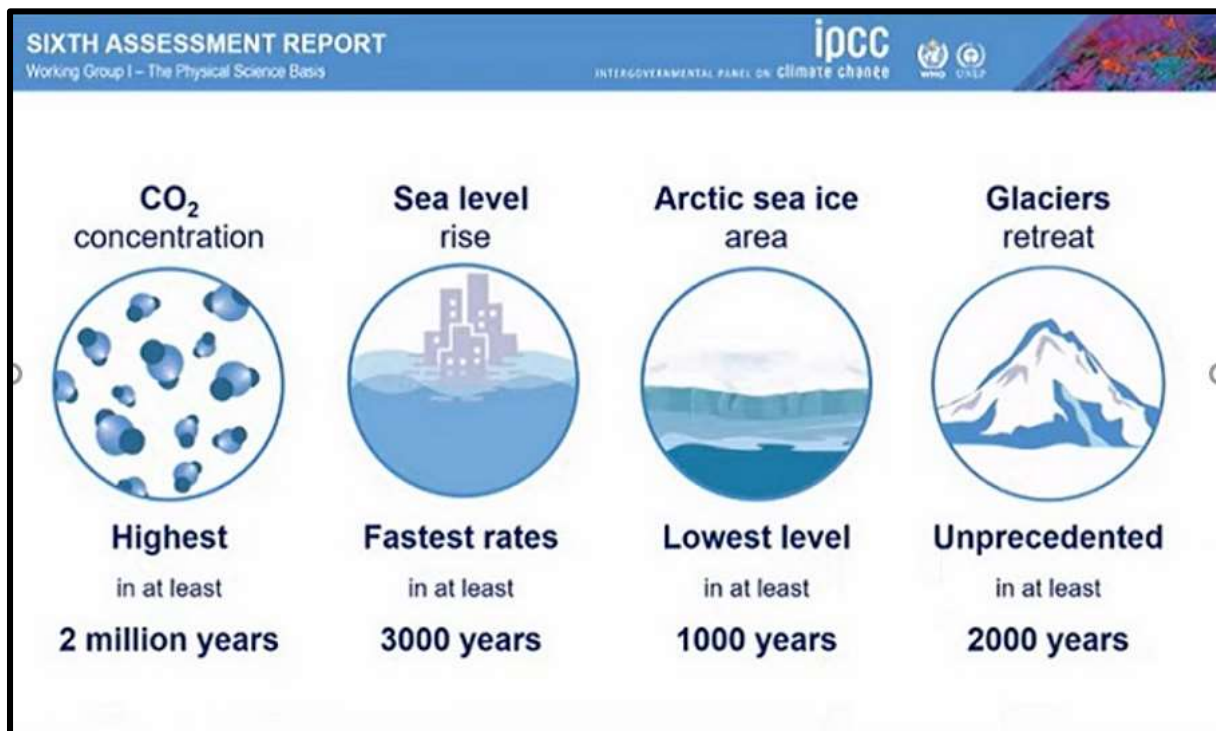
- A State Finance Commission reviews the money position of the panchayats during a state and makes recommendations to the Governor concerning the principles that ought to govern the distribution of tax yield – taxes, duties, levies, toll fee collected by the state between the state and its Panchayati dominion establishments in the least 3 levels – village level, block level and district level.
- Under Article 243-I of the Indian Constitution, the governor of a state ensures the birthing of a State Finance Commission's recommendations to the table of the state legislative assembly.
- It additionally includes a memo of action taken by the govt on the Commission's report. State Finance Commission recommends the following: Taxes, levies and costs levied or confiscated by Panchayats themselves.
- Grants-in-aid to Panchayati dominion establishments from the consolidated fund of a state.
- Ways to boost the money position of the Panchayati dominion establishments. Measures for the improvement of Panchayat's finances.
- 15th Finance Commission report on Functioning of SFC According to 15th Finance Commission report, most State governments did not constitute them in time and did not give due importance to strengthening this critical constitutional mechanism.
- Therefore, States haven't got the good thing about a scientific review of their revenue position and suggestions for resource mobilisation.
- The State Finance Commissions ought to play a far a lot of essential role in recommending taxes assigned to municipalities and alternative native governments and connected money relations

between the States and their municipalities.

- The State Finance Commissions aren't a permanent body; thus, tons of your time goes towards obtaining workplace area, technical men, transcription workplace infrastructure and collection information on native body finances that cause hefty delay in filing their reports.
- The State governments ought to strengthen the State Finance Commissions and guarantee they need correct resources, adequate body support for his or her swish functioning and ar provided adequate time for closing the task assigned to them thus on guarantee timely submission of reports to the govt.
- A strong State Finance Commission would make sure that States get the good thing about applicable distribution of resources to their Panchayati rule institutes and additionally periodic recommendations for augmenting own supply of revenues.

### **Topic 38. IPCC ASSESSMENT REPORT**

## Importance for Prelims: Environment



The Geneva-based Intergovernmental Panel on temperature change (IPCC) can unharness the primary a part of its Sixth Assessment Report, the periodic standing make sure has currently become the foremost wide accepted scientific read of the state of the Earth's climate. About the Sixth Report:

- This a part of the report can gift the newest scientific understanding of the climate system, however and why it's dynamical, and therefore the impact of human activities on this method.
- REGIONAL FOCUS: The Sixth Assessment Report can place rather more stress on regional assessment.
- EXTREME EVENTS: within the previous couple of years, there has been vital advancement in attribution science, permitting scientists to mention whether or not a selected event was a results of temperature change.
- Attribution science is probably going to urge vital house within

the report.

- **CITIES:** The Sixth Assessment Report is anticipated to gift specific situations the temperature change impacts on cities and enormous urban populations, and additionally implications for key infrastructure.
- **SYNERGIES:** IPCC is predicted to gift a lot of integrated understanding of the case, cross-link proof and discuss trade-offs between completely different choices or pathways, and additionally doubtless to hide social implications of temperature change action by countries.
- **Previous Assessment Reports:** The 5 previous assessment reports that have embark since the IPCC was established in 1988 have shaped the idea of international temperature change negotiations.
- and the actions that governments across the planet are taking within the last 3 decades to limit the increase of world temperatures.
- The 1st Assessment Report light-emitting diode to the putting in place of the international organisation Framework Convention on temperature change (UNFCCC).
- The Second Assessment Report was the idea for the 1997 Kyoto Protocol.
- The second and third elements of the report, handling the expected impacts of temperature change, and also the actions needed to stop the worst impacts, ar slated to return out next year.
- The fourth assessment report, which came out in 2007, won the IPCC the Nobel Peace Prize.
- The Fifth Assessment Report, which came out in 2014, guided the Paris Agreement.
- In the immediate future, the IPCC report may function the foremost vital warning towards the quickly closing window of chance to

halt the increase in temperatures to unacceptable levels, and propel the governments to require additional pressing actions.

- About Intergovernmental Panel on Climate Change (IPCC): The Intergovernmental Panel on Climate Change (IPCC) is the international body for assessing the science related to climate change.
- It was discovered in 1988 by the planet meteoric Organization (WMO) and United Nations setting Programme (UNEP) to produce policymakers with regular assessments of the scientific basis of temperature change, its impacts and future risks, and choices for adaptation and mitigation.
- The IPCC doesn't conduct its own analysis. IPCC reports area unit neutral, policy-relevant however not policy-prescriptive.

### **Topic 39. ARABIAN SEA CYCLONES**



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

Studies employing a 50-year (1970-2019) extreme weather events dataset of the Asian country meteorologic Department (IMD) have shown that in recent decades, there has been exaggerated occurrences of maximum weather events, together with very severe cyclonic storms.

#### **About:**

- An analysis of past knowledge of cyclones over the North ocean (Bay of Bengal and Arabian {sea|sea}) throughout the amount 1891–2020 indicates that the frequency of very severe cyclonic storms has exaggerated in recent years over the Arabian Sea since 1990, and remained a similar over the Bay of Bengal.
- The highest loss of lives occurred throughout Cyclones Tautkae, 2021, 118 deaths), Amphan (2020, 98 deaths), Titli (2018, seventy eight deaths) and Nilam (2012, 75 deaths), the information showed.
- One of the explanations that we tend to area unit seeing a lot of and a lot of storms and cyclones within the tropical regions, particularly regions like sea, is due to fast ocean warming.
- The sea is one among the quickest warming basins across the worldwide oceans.
- **Tropical Cyclone:** Tropical cyclones represent a circulatory motion of air towards a low-pressure centre.
- In these cyclones, the wind blows counter-clockwise within the hemisphere and dextrorotary within the hemisphere.
- They develop within the tropics and move from east to west. Most of the tropical cyclones develop within the doldrums region.
- They are associated with violent winds and heavy rainfall and represent destructive weather phenomena.
- The eye is a region of mostly calm weather at the center of tropical

cyclones.

- The cyclone's lowest air pressure happens within the eye and might be the maximum amount as fifteen p.c under the pressure outside the storm.
- Due to the mechanics of a tropical cyclone, the eye and the air directly above it are warmer than their surroundings.

## **Topic 40. ART & CULTURE: PAINTINGS**

### ***Importance for Prelims: Art and Culture***

Year-long celebrations marking a hundred and fifty years of Abanindranath Tagore have begun with a bunch of on-line workshops and talks paying tributes to the notable of the Bengal faculty of Art.

#### **Abhinindranath Tagore:**

- Abanindranath Tagore (1871 –1951) was the principal creator and creator of the “Indian Society of Oriental Art”.
- He was conjointly the primary major exponent of Swadeshi values in Indian art, thereby origination the powerful Bengal faculty of art, that junction rectifier to the event of contemporary Indian painting.
- He was conjointly a noted author, notably for kids. Popularly called ‘Aban Thakur‘, his books Rajkahini, Buro Angla, Nalak, and Khirer Putul were landmarks in Bengali language children’s literature and art.
- Tagore wanted to modernise Mughal and Rajpoot designs to counter the influence of Western models of art, as schooled in art colleges underneath the British rule.
- Along with different artists from the Bengal faculty of art, Tagore advocated in favour of a nationalistic Indian art derived from Indian liberal arts, drawing inspiration from the Ajanta Caves.
- **Bengal School of Art:** It is also called the Renaissance School or the Revivalist School, as it represented the first modern movement of Indian art.
- Its leading creative person was Abanindranath Tagore and its theoriser was E.B. Havell, the principal of the city college of Art.
- They skint faraway from the convention of oil painting and therefore the realistic vogue, and turned for inspiration to medieval Indian traditions of miniature painting and therefore the ancient art of mural

painting within the Ajanta caves.

- They were conjointly influenced by the art (wash technique) of Japanese artists. World Health Organization visited Bharat at that point to develop an Asian movement.
- **Associated Persons:** Nandalal Bose and Kshitindranath Majumdar. Standard Paintings: Asian nation Mata, My Mother, Journey's finish, etc.
- Popular Books: Rajkahini, Nalak, Buro Angla and Khirer Putul etc.
- **Nandalal Bose:** To mark the 1930 occasion of Mahatma Gandhi's arrest for protesting the British tax on salt, Bose created a black on white linocut print of Gandhi walking with a staff.
- It became the iconic image for the non-violence movement.

### Topic 41. NATIONAL COMMISSION FOR WOMEN

## *Importance for Prelims: National Organisation*



In pursuance of Section three of the National Commission for girls Act, 1990 (20 of 1990), Central Government herewith nominates Smt. Rekha Sharma, as chairman of the National Commission for girls, for one more term of 3 years, or until the age of sixty five years or till additional orders, whichever is that the earliest

- It was created as a statutory body in January 1992 beneath the National Commission for girls Act, 1990.
- Its mission is to attempt towards sanctionative ladies to attain equality and equal participation altogether spheres of life by securing her due rights and entitlements through appropriate policy formulation, legislative measures, etc.
- Its functions square measure to: Review the constitutional and legal safeguards for girls. suggest remedial legislative measures.
- Facilitate redressal of grievances.

- Advise the Government on all policy matters affecting women.
- **Composition: Chairperson:** The central government should nominate the chairperson.
- **Five members:** The five members are also to be nominated by the central government from amongst the person of ability, integrity, and standing.
- They ought to possess expertise in numerous fields like law or legislation, labor, management of business potential of girls, women's voluntary organization, education, administration, economic development, and social good-being.
- **Member Secretary:** The Central Government conjointly nominates member secretary.
- He/ she ought to be either associate degree skilled within the field of management, a corporation, or a political candidate World Health Organization could be a member.

## Topic 42. GOVERNMENT SECURITIES ACQUISITION PROGRAMME



## **(G-SAP)**

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

The RBI jointly proposes to conduct a lot of auctions of Rs twenty five,000 crore every on August twelve and August twenty six, two021 beneath G-SAP 2.0. (the government securities acquisition programme )

- Under G-SAP, the RBI will purchase government securities worth Rs 1 lakh crore in the first quarter of FY22.
- It is a structured purchase program which will definitely calm investors' nerves and help market participants to bid better in scheduled auctions and reduce volatility in bond prices.
- Significance of G-SAP The G-SAP aims to provide more comfort to the bond market in the backdrop of the government's elevated borrowing for this year, which the RBI has to ensure goes through without causing disruption.
- It can offer certainty to the bond market participants with reference to RBI's commitment of support to the bond market in FY22.
- The market participants have always wanted to know the RBI's Open Market Operations (OMO) purchase calendar, and the RBI has now provided that to the market through G-SAP.
- It can facilitate cut back the unfold between the repo rate and also the 10-year bond certificate yield which can facilitate to cut back the mixture price of borrowing for the Centre and states in FY22.

## **Topic 43. FACTORS TO BOOST EXPORTS**

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

Prime Minister Narendra Modi nowadays listed four factors to spice up exports and urged all stakeholders to spot new merchandise and destinations.

- The factors include increasing manufacturing manifold, removing logistical problems, coordination between exporters and government, and finding more global markets for Indian products At present our exports are about 20 per cent of GDP.
- The PM addressed all Indian missions and export promotion councils on the target of achieving \$400- billion exports in 2021-22.
- A big part of India's exports comprised items from just a handful of sectors such as petroleum products, gems & jewellery, engineering goods and pharmaceuticals and half the country's exports were shipped to just four destinations Suggestions to boost exports With mining, coal, defence and railways opening up, our exporters are getting more scope for growth and there is a need for drawing futuristic strategies for the new areas To mark 75 years of Independence, identify 75 new items that could be exported from India to their country of operation.
- Indian diaspora in several countries to induce concerned within the promotion drive and facilitate boost exports of specific things from their States of origin.
- State governments, too, might choose five-ten high priority merchandise and send them to a minimum of seventy five countries, he added.