

Polity and Governance

Health ministry released communication strategy to support Covid-19 vaccine rollout

Why in the news?

- The **Union health ministry** has recently **released a communication strategy to support the Covid-19 vaccine rollout in India that seeks to disseminate accurate and transparent information** by alleviating apprehensions and ensuring its acceptance.



About the Communication strategy

- The **four key areas** that will be **addressed as part of interventions** under the strategy are
 - Giving information on Covid-19 vaccines
 - addressing vaccine hesitancy
 - building vaccine eagerness
 - maintaining and sustaining Covid appropriate behaviour
- The **strategy aims at managing and mitigating** any **potential disappointment** expressed by **unmet demand for the vaccine or 'eagerness'** amongst people and addressing **vaccine 'hesitancy'** that could arise **because of apprehensions around vaccine safety, efficacy** apart from **any other myths and misconceptions**.
- It also aims to **provide information on potential risks** and **mitigate unintended crisis** during the **introduction and rollout**.
- The **strategy also seeks to build trust** and **enable greater confidence** in the Covid-19 vaccine amongst all people by **employing transparency in communication**, while also **managing any mis/disinformation** and rumours around.

Key Features of the Communication Strategy:

Using Social Influence

- The **strategy focuses** on using **social influence or endorsements** from experts and **official voices to spell out the process of immunization** (where, how, who, when – date and time).
- It also **emphasises on the safety and efficacy of vaccines** and explains the **decision to conduct the drive in a phased manner**.

Involving Community Based Platforms

- Government will **involve community mobilisers and frontline workers to engage** with the **community at various levels** through **community consultations, faith leaders and other community-based platforms build trust and enable greater confidence** in the Covid-19 vaccine.

National Media Rapid Response Cell (NMRRRC)

- The **ministry intends to establish a National Media Rapid Response Cell (NMRRRC)** under its **ambit to ensure preparedness** through **media monitoring and social listening** to respond in real time.
- It will also **unfold media and public discourse** through **extensive monitoring of print, electronic and digital media**.

Adverse Effects due to immunization

- In case of **any adverse effects following immunization (AEFI)**, the **strategy emphasizes on supporting the mobilisers and health workforce in managing crisis situations** by appealing to the community to stay calm while **waiting for a proper diagnosis** and **prevent aggressive behavior** against health workers.

Topic- GS Paper II–Health Issue

Source-PIB

Indian SARS-CoV-2 Genomic Consortia (INSACOG)

Why in the news?

- **Government of India** has recently **launched the Indian SARS-CoV-2 Genomic Consortia Group (INSACOG)**.



About Indian SARS-CoV-2 Genomic Consortia (INSACOG)

- It has been **established to monitor the genomic variations** in the **SARS-CoV-2** on a regular basis **through a multi-laboratory network**.
- The **consortium will ascertain the status of new variant of SARS-CoV-2 (SARS-CoV-2 VUI 202012/01)** in the country.
- The group is **coordinated by the Department of Biotechnology (DBT)** along with the **Ministry of Health and Family Welfare (MoH&FW), ICMR and CSIR**.

Composition

- It **comprises 10 labs** (NIBMG Kolkata, ILS Bhubaneswar, NIV Pune, CCS Pune, CCMB Hyderabad, CDFD Hyderabad, InSTEM Bengaluru, NIMHANS Bengaluru, IGIB Delhi and NCDC Delhi).

Nodal Unit for Maintaining Database

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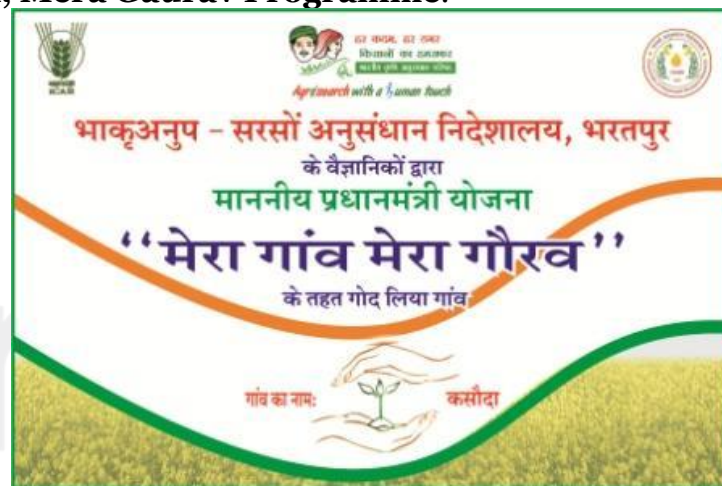
- National Centre for Disease Control (NCDC) will be the **nodal unit for maintaining a database** of all samples of the **new variants of public health significance**.
- The data will be **epidemiologically analysed, interpreted and shared with states for investigation, contact tracing and planning response strategies**.

Topic- GS Paper II–Governance
Source-Indian Express

Mera Gaon, Mera Gaurav Programme

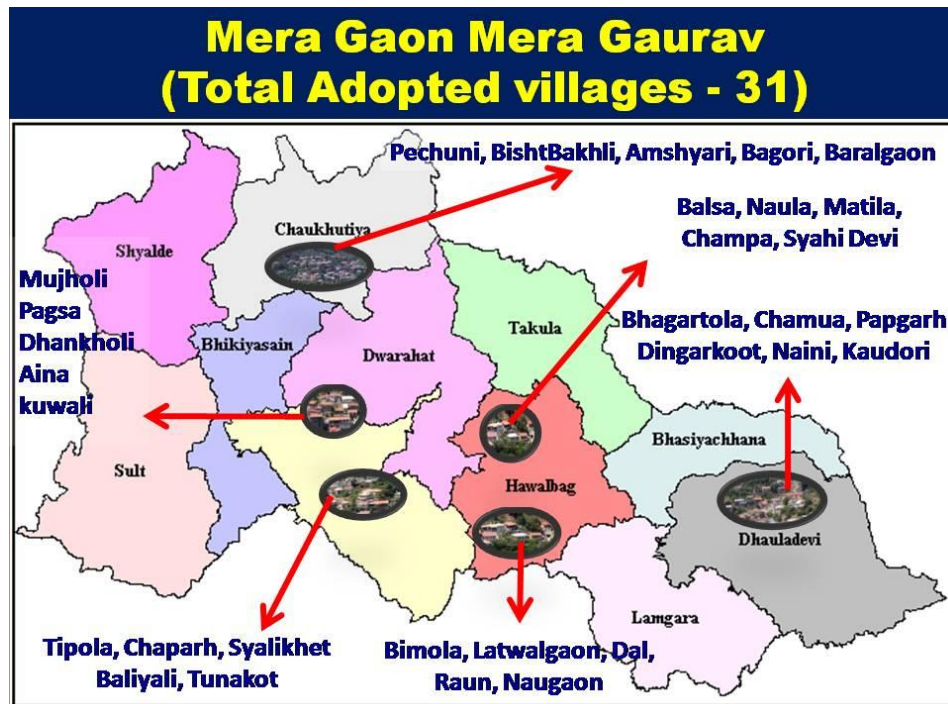
Why in the news?

- Recently, the **Ministry of Agro & Rural Industries** has carried out the **cleanliness drive in Ibrampur, Veling and Parra villages** under the Mera Gaon, Mera Gaurav Programme.



About Mera Gaon, Mera Gaurav

- It is the **national innovative initiative** of **Indian Council of Agricultural Research (ICAR)** and operational in many villages.
- It is a **farm-centric mission translating knowledge at farmer's doorstep** so as to address his **farm-oriented problems in a holistic manner to accomplish livelihood security**.



The objectives of this scheme are:

- To provide farmers with required information, knowledge, and advisories on regular basis by adopting villages.
- To promote the direct interface of scientists with the farmers to hasten the lab to land process.
- To ensure that farmers benefit from best farm practices by providing required information, knowledge, and advisories on regular basis by adopting villages.
- To create awareness among farmers about the organisations and their programmes and schemes as well as government policies related to the farming sector.
- It has **enriched the farmers with latest technology** and had made them to **adopt latest improved technologies** in form of interventions.
- Under this scheme, **scientists will select villages** as per their **convenience and will remain in touch** with the **selected villages and provide information** to the **farmers on technical and other related aspects** in a time frame.
- The groups of **Four scientists at every Institute/University** will **adopt villages within a radius of 50-100 km** from their place of working.

Topic- GS Paper II–Governance

Source-PIB

Global Pravasi Rishta Portal

Why in the news?

- The **Minister of State for External Affairs** has recently launched the **Global Pravasi Rishta portal and mobile App**.

About Global Pravasi Rishta Portal



- It aims to **connect with Indian Diaspora** across the world.
- The **portal will act as a dynamic communication platform** between the **Pravasis of India**.
- The portal is **created to enable the registration of Indian diaspora members** i.e., NRIs, PIOs and the OCIs.
- The **portal is going to facilitate the Indian government to connect** with the **overseas Indian community**.
- It will **facilitate NRIs, OCIs and PIOs community** by connecting them to **various new and existing government schemes** benefiting them in **various areas of interest**.
- It will **enable communication with the diaspora on a real-time basis** and will have the **ability to issue emergency alerts and advisories**.

Topic- GS Paper II–Governance

Source-Indian Express

FSSAI slashes limit for trans-fat levels in foods

Why in the news?

- The **Food Safety and Standards Authority of India (FSSAI)** have recently capped the amount of **Trans fatty acids (TFA)** in oils and fats.



What are the new limits?

- It has **capped the amount of Trans fatty acids (TFA)** in oils and fats **to 3% for 2021 and 2% by 2022** from the **current permissible limit of 5%** through an **amendment to the Food Safety and Standards (Prohibition and Restriction on Sales) Regulations**.

Previous Limit

- It was in **2011** that **India first passed a regulation** that set a **Trans fatty acids (TFA) limit of 10% in oils and fats**, which was further **reduced to 5% in 2015**.
- The **revised regulation applies to edible refined oils, vanaspati** (partially hydrogenated oils), **margarine, bakery shortenings**, and other mediums of cooking such as **vegetable fat spreads and mixed fat spreads**.

Need of the regulation

- The **FSSAI rule** comes at the **time of a pandemic** where the **burden of non-communicable diseases** has risen.
- **Cardiovascular diseases** along with diabetes are proving fatal for COVID-19 patients,”

Related Information

WHO initiative to eliminate Trans fat

- The **World Health Organization (WHO)** has launched a comprehensive plan called '**REPLACE**' to **eliminate industrially produced artificial trans fats** from the **global food supply by 2023**.
- The **UN body** has released a **step-by-step guide for the industry to eliminate trans fats** from the food.

The guide, called **REPLACE**, has six actions, which include-

- a. Review of dietary sources of trans fats
- b. Promoting replacement with healthier fats
- c. Setting up a regulatory framework
- d. Assessing and monitoring trans fats content in food
- e. Creating awareness and enforcing the regulation
- f. Enforce compliance with policies and regulations.

India and Trans fat

- The government aim to make India, **Trans Fat free by 2022**, and **a year ahead of target set by World Health Organization**.

About Trans fats

- These are a **form of unsaturated fat** associated with **several negative health effects**.
- These **fats are largely produced artificially** but a small amount also occurs naturally.

Types of Trans fats

- **Naturally occurring trans fats** are **produced in the gut of some animals and foods** made from these animals (e.g., milk and meat products) may contain **small quantities of these fats**.
- **Artificial trans-fat** is **created during hydrogenation**, which **converts liquid vegetable oils into semi-solid** partially hydrogenated oil.
- Since they are **easy to use, inexpensive** to produce and last a long time, and **give foods a desirable taste and texture**, they are **still widely used** despite their harmful effects being well-known.

Harmful Effects of Trans Fats

- Trans fats are **associated with increased risk of heart attacks** and **death from coronary heart disease**.

- As per the **World Health Organization (WHO)**, approximately **5.4 lakh deaths** take place each year **globally because of intake of industrially produced Trans fatty acids**.

Topic- GS Paper II – Health

Source- The Hindu

School Bag Policy, 2020

Why in the news?

- The **Directorate of Education** has issued a **circular asking schools to follow the new ‘School Bag Policy, 2020’** released by the **National Council of Educational Research and Training (NCERT)**.



About the Circular

- According to the **circular**, **schoolteachers** should inform the students in **advance about the books and notebooks** to be brought to school on a **particular day and frequently check their bags** to ensure that they are not carrying unnecessary material.
- The **weight of the school bags**, as per the policy, should be
 - 1.6 to 2.2 kg for students of Classes I and II
 - 1.7 to 2.5 kg for Classes III, IV and V
 - 2 to 3 kg for Classes VI and VII
 - 2.5 to 4 kg for Class VIII
 - 2.5 to 4.5 kg for Classes IX and X
 - 3.5 to 5 kg for Classes XI and XII
- The **teachers should take the responsibility of checking the weight of school bags** of the **students every three months** on a day selected for the **whole class and any information about heavy bags** should be **communicated to the parents**.
- To **reduce the weight of the school bag**, the **school management** should **provide quality potable water in sufficient quantity** to all the students in the school so that they **do not need to carry water bottles** from their homes.

Topic- GS Paper III - Education

Source- Indian Express

Bombay HC permits trans-woman to contest polls from women's category

Why in the news?

- The **Bombay High Court's Aurangabad Bench** has allowed a **transgender to contest village panchayat polls** in women's category, saying that such persons have the right to "**self-perceived gender identity**".

Court View's

- The court in its order noted that the **Union government** has introduced the **Transgender Persons (Protection of Rights) Act, 2019** and has permitted a **transgender person** to have a **right to self-perceived gender identity**.

Related Information

About Transgender Persons (Protection of Rights) Act, 2019

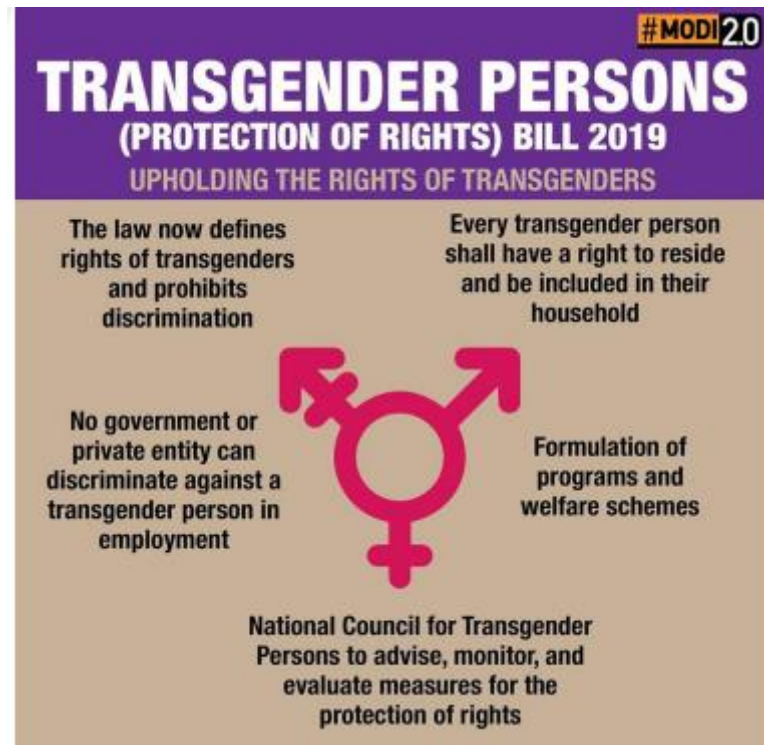
- It defines a **transgender person** as one whose gender **does not match the gender assigned at birth**. It includes trans-men and trans-women, persons with intersex variations, genderqueers, and persons with socio-cultural identities, such as **kinnar and hijra**.
- **Intersex variations** are defined to **mean a person who at birth shows variation** in his or her **primary sexual characteristics, external genitalia, chromosomes, or hormones** from the **normative standard of male or female body**.
- The bill has a provision that **provides transgender the right of residence with parents and immediate family members**.
- It calls for establishing a **National Council for Transgender persons (NCT)**.

About National Council for Transgender Persons

- The **Ministry of Social Justice and Empowerment** has recently constituted the **National Council for Transgender Persons**.

About National Council for Transgender Persons

- The Council has been formed under **Transgender Persons (Protection of Rights) Act, 2019**.
- The Council will also have **joint secretary level members** from **ministries of health, minority affairs, education, labour, rural development**.
- Apart from the ministries, the **council will also have members from Human Rights Commissions, NITI Aayog and National Commission for women**.
- **Five nominated members** from the **community** are also part of the **Council**.



Functions of the Council

- To advise the central government on formulation of policies, legislation, programmes and projects with respect to transgender persons
- To review and coordinate activities of all departments
- To redress grievances of transgender persons.
- To monitor and evaluate impact of policies and programmes designed for achieving equality and full participation of transgenders.
- To perform other functions as prescribed by the centre.

Topic- GS Paper II–Social Issues

Source-The Hindu

Rashtriya Kamdhenu Aayog (RKA)

Why in the news?

- Recently, the **Rashtriya Kamdhenu Aayog (RKA)** has come out with a **noble initiative of making Study materials** about **Cow Science** available and conduct “**Kamdhenu Gau-Vigyan Prachar-Prasar Examination**”.



Key Highlights of the Examination

- It is the **first-ever exam of this kind** which will be **held annually**.
- The students of **primary, secondary and college levels** and **public** can **take part** in the '**Kamdhenu Gau-Vigyan Prachar-Prasar Examination**' without any fee.

Significance

- It will **help in raising mass awareness** about the **indigenous cows among young students** and every other citizen.
- The **exam will infuse the curiosity** into all **Indians about cows** and make them **aware of the unexplored potential** and **business opportunities a cow can offer**, even after it stops giving milk.

Related Information

About Rashtriya Kamdhenu Aayog

- It is a **high-powered permanent apex advisory body** with **mandate to help the Central Government** to develop appropriate programmes for conservation, sustainable development, and genetic upgradation of **Indigenous breeds of cows**.
- It comes under the **Ministry of Fisheries, Animal Husbandry and Dairying**.
- It will **review existing laws, policies as well as suggest measures** for **optimum economic utilization of cow wealth** for **enhanced production and productivity**, leading to **higher farm income and better quality of life** for the dairy farmers.
- It **aims at transmission and application** of **improved technology and management practices** at the **farmers' doorstep** through coordination with **dairy cooperatives, farmer producer companies** and **dairy industry** as well as research institutions.
- **Rashtriya Kamdhenu Aayog** will function as an **integral part of Rashtriya Gokul Mission**.

Related Information

Livestock Census

- As per **2012 livestock census**, **India** has **300 million bovine population**; out of this **191 million are cattle (cows)** and **108.7 million buffaloes**.
- The **cattle and buffalo genetic resource** is constituted by **43 breeds of cattle** and **16 breeds of buffaloes**.

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- Among the **bovine population**, **216 million** are **females** and **84 million** are **males**, **5.2 million cattle** are **abandoned** as per **livestock census 2012**.

Topic- GS Paper II–Governance
Source-Hindustan Times

Vertical and Horizontal Reservations

Why in the news?

- The **Supreme Court** has recently clarified the position of law on the **interplay of vertical and horizontal reservations**.
- The decision in **Saurav Yadav versus State of Uttar Pradesh** dealt with **issues arising from the way different classes of reservation** were to be applied in the selection process to **fill posts of constables in the state**.



What are vertical and horizontal reservations?

Vertical reservation

- **Reservation for Scheduled Castes, Scheduled Tribes, and Other Backward Classes** is referred to as vertical reservation.
- It **applies separately** for each of the **groups specified under the law**.

Horizontal reservation

- It refers to the **equal opportunity provided** to other **categories of beneficiaries** such as **women, veterans, the transgender community, and individuals with disabilities**, cutting through the vertical categories.

How are the two categories of quotas applied together?

- The **horizontal quota** is applied separately to each **vertical category**, and **not across the board**.
- For example, if **women have 50% horizontal quota**, then half of the selected candidates will have to necessarily be women in each **vertical quota category** — i.e., **half of all selected SC candidates** will have to be **women**, half of the unreserved or **general category** will have to be women, and so on.
- The **interlocking of the two types of reservation** throws up a **host of questions** on how certain groups are to be identified.
- For example, would an **SC woman** be put in the **category of women or SC**?
- Since **quotas are fixed in percentages**, what percentage of quota would be attributed to each?

About Saurav Yadav versus State of Uttar Pradesh

- The court ruled against the **Uttar Pradesh government**, holding that if a **person belonging to an intersection of vertical-horizontal** reserved category had secured **scores high enough to qualify** without the vertical reservation, the **person would be counted as qualifying** without the vertical reservation, and **cannot be excluded from the horizontal quota in the general category**.

Topic- GS Paper II–Governance

Source-Indian Express

Using God's name to sell articles illegal

Why in the news?

- The **Bombay High Court** has recently **banned the sale of items** that claim to **possess miraculous or supernatural powers** via **television advertisement**.



Background

- A **petition was filed** seeking a **direction and injunction to prevent advertisements on television channels** that promote the sale of articles like **Hanuman Chalisa Yantra**.
- The petitioner had **come across advertisements in 2015 on TV claiming special, miraculous, and supernatural properties/qualities** in **Hanuman Chalisa Yantra** prepared by one **Baba Mangalnath** who had achieved 'siddhi' (supernatural powers) and was **blessed by Lord Hanuman**.
- It was **contended in the petition** that there was a **false propaganda** that the **Yantra was prepared by one Baba Mangalnath**, who had **achieved Siddhi (ability to do anything)**.

Observations made by Court

- The court held that **using the name of any God** and claiming that it has supernatural qualities is **"illegal"** and falls under the **Maharashtra Prevention and Eradication of Human Sacrifice and Inhuman, Evil and Aghori Practices and Black Magic Act, 2013**.
- The court observed that the objectives quoted in the **Black Magic Act** can be **achieved mainly through education**.

- **Section 3 of the Black Magic Act** prohibits not only commission of acts of **black magic, evil practices** but also **propagation and promotion of such practices and magic**.
- **Section 3(2) of the Act** provides that **abetment of such propaganda** is also an offence.

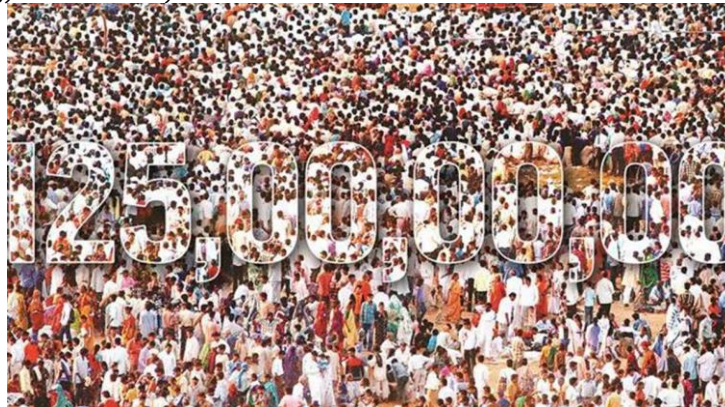
Topic- GS Paper II – Polity

Source- Indian Express

Panel to study NFHS-5 findings

Why in the news?

- The **Health and Family Welfare Ministry** has set up a **technical expert group** to examine the **adverse findings from the National Family Health Survey-5** and “**recommend programmatic and policy interventions to improve**” indicators pertaining to **malnutrition, stunting, anaemia, and C-section**.



- The **committee is chaired by Joint Secretary Preeti Pant** and includes experts from **medicine and nutrition**.
- There are also **State programme officers from Karnataka, Chhattisgarh, and Madhya Pradesh**.

Related Information

About National Family Health Survey-5

- In **December 2020**, the **first-phase data of the National Family Health Survey-5 (NFHS-5) 2019-20** has been released by the **Ministry of Health and Family Welfare**.

About the NFHS-5 Survey

- The **NFHS-5 captured data during 2014-19 and its content is similar to NFHS-4 (2015-16)** to allow comparisons over time and also marks a shift from it.
- It **provides an indicator for tracking 30 Sustainable Development Goals (SDGs)** that the **country aims to achieve by 2030**.
- However, **NFHS-5 includes some new topics**, such as preschool education, disability, access to a toilet facility, death registration, bathing practices during menstruation, and methods and reasons for abortion.
- In **2019, for the first time, the NFHS-5** sought details on the **percentage of women and men who have ever used the Internet**.

Key finding of the Report

- **Several states across the country** have reversed **course and recorded worsening levels of child malnutrition** despite improvements in sanitation and **better access to fuel and drinking water**.
- The **latest data captures the state of health in the states** before the pandemic.
- Several states have **either witnessed meagre improvements** or sustained reversals on **four key metrics of child** (under 5 years of age) malnutrition parameters.
- These four key metrics are
 - a. child stunting
 - b. child wasting
 - c. share of children underweight
 - d. child mortality rate
- The data from these metrics is also used in several global indices such as the Global Hunger Index.

Child Stunting:

- The **most surprising reversals** have happened in **child stunting, which reflects chronic under nutrition**, and refers to the **percentage of children who have low height for their age**.
- Stunting, more than **any other factor**, is likely to have **long-lasting adverse effects** on the **cognitive and physical development of a child**.
- **Telangana, Gujarat, Kerala, Maharashtra, and West Bengal** saw increased levels of child stunting.
- The reversals in child stunting are **“hugely troubling”** as normally, **stunting levels do not increase** because all the things that **affect child growth tend to improve** as **stable democracies and economies** move ahead.

Child Wasting

- It **reflects acute undernutrition** and **refers to children having low weight** for their height.
- **India has always** had a **high level of child wasting**.
- Instead of reducing it, **Telangana, Kerala, Bihar, Assam, and Jammu-Kashmir** witnessed an increase and **Maharashtra and West Bengal** have been stagnant.

Share of Children Underweight

- In the **proportion of underweight children**, **big states like Gujarat, Maharashtra, West Bengal, Telangana, Assam, and Kerala** have seen an increase.

Child Mortality Rate

- **Infant Mortality Rate** (the number of deaths per 1000 live births for children under the age of 1) and **Under 5 Mortality Rate** data is mostly stagnant.
- Between **NFHS-3 (2005-05)** and **NFHS-4**, there was progress on **mortality reduction**, but **NFHS-5 and NFHS-4** are about five years apart still there is **very little progress** in many states.

- In Maharashtra, the under-5 mortality rate is basically the same in NFHS-4 and in Bihar, it reduced by just 3% over five years.
- Over 60% of child mortality is explained by child malnutrition, which is the central problem and needs to be addressed.

For the first time: Gaps in internet use

- There is an **urban-rural gap** as well as **gender divide** with respect to the use of the **Internet in several states and union territories**.
- On average, less than **3 out of 10 women in rural India** and **4 out of 10 women in urban India** ever used the Internet.
- **General Data:** An average **42.6% of women** ever used the Internet as against an **average of 62.16% among the men**.
- **In Urban India:** An average of **56.81% of women** ever used the Internet compared to an average of **73.76% among the men**.
- **In Rural India:** A **dismal 33.94% women in rural India** ever used the Internet as against **55.6% among men**.
- The **percentage of women**, who ever used the Internet, **significantly dropped in rural India**.

Topic- GS Paper II – Government Policies & Interventions (Health)

Source- The Hindu

16th Pravasi Bharatiya Divas Convention

Why in the news?

- Recently, the **16th Pravasi Bharatiya Divas Convention** has been organized on **January 09, 2021**, in a virtual format.



Chief Guest

- The President of **Suriname**, **Mr Chandrikapersad Santokhi** as the chief guest.
- **Suriname** is a **small country** on the **northeastern coast of South America**.

Theme

- The theme of **16th PBD Convention 2021** is **"Contributing to Aatmanirbhar Bharat"**.

About the Pravasi Bharatiya Divas (PBD) Convention

- It is the **flagship event of the Ministry of External Affairs** and provides an **important platform to engage and connect** with the overseas Indians.
- Its **purposes are to recognize the overseas Indians** who have contributed to the development of India.

Significance

- It is **celebrated every year on January 09** because **Mahatma Gandhi** had returned to India from **South Africa** on **January 09, 1915**.

Related Information

Pravasi Bharatiya Samman (PBSA)

- It is conferred every year on the occasion of Pravasi Bharatiya Divas to **select Indian diaspora members** to recognize their **achievements and honour their contributions** to various fields, both in India and abroad.

Youth Pravasi Bharatiya Divas (PBD)

- It will also be **celebrated virtually** on the theme "**Bringing together Young Achievers from India and Indian Diaspora**" and will be anchored by the **Ministry of Youth Affairs and Sports**.
- The **Special Guest** for the event is **Ms Priyanca Radhakrishnan, Minister for Community & Voluntary Sector of New Zealand**.

Topic- GS Paper II–Governance

Source-PIB

Khadi Prakritik Paint

Why in the news?

- **Union Minister for MSME, Shri Nitin Gadkari** has launched an **innovative new paint** developed by **Khadi and Village Industries Commission** on **12th January**.
- It is a **first-of-its-kind**, regarded as **eco-friendly, non-toxic paint** with **anti-fungal, antibacterial properties**.



About the Khadi Prakritik Paint

- It has been **conceptualized** by the **Khadi and Village Industries Commission (KVIC)**.

Characteristics of Paint

- The paint has been **certified by the Bureau of Indian Standards**.

- **Khadi Prakritik Paint** is available in two forms – distemper paint and plastic emulsion paint.

Main Ingredient

- **Cow dung** as its main ingredient, the paint is cost-effective and odourless and has been certified by the Bureau of Indian Standards.
- The paint is free from heavy metals like lead, mercury, chromium, arsenic, cadmium, and others.

Significance

- Production of **Khadi Prakritik Paint** is aligned with the **Prime Minister's vision** of increasing farmers' income.
- This **technology** will increase the consumption of cow dung as a raw material for eco-friendly products and will generate additional revenue to farmers and gaushalas.
- This is estimated to generate additional income of **Rs 30,000** (approx) per annum per animal to farmers/gaushalas.
- It will be a **boost to local manufacturing** and will create sustainable **local employment** through technology transfer.

Topic- GS Paper II–Governance

Source- The Hindu

ISRO to adopt 100 Atal Tinkering Labs for promoting Space Education

Why in the news?

- The **Department of Space (DOS)** and **Atal Innovation Mission, NITI Aayog** has recently, announced that **ISRO** would be adopting **100 Atal Tinkering Labs** across the country to promote education in the field of **STEM, Space education and space technology** related Innovations for school students.



About Atal Tinkering Labs

- It is an initiative by the **Atal Innovation Mission, NITI Aayog** with the aim of establishing **Atal Tinkering Laboratories (ATLs)** in schools across India.

Objective

- To foster **curiosity, creativity, and imagination** in young minds; and inculcate skills such as **design mindset, computational thinking, adaptive learning, physical computing** etc.

Key Features

- It is a **workspace** where **young minds** can give **shape** to their ideas through **hands-on do-it-yourself mode** and **learn innovation skills**.
- **Young children** will get a **chance to work** with **tools and equipment** to **understand** the **concepts of STEM** (Science, Technology, Engineering and Math).
- It would contain **educational and learning ‘do it yourself’ kits** and equipment on – **science, electronics, robotics, open-source microcontroller boards, sensors and 3D printers and computers**.

Financial Support

- **Atal Innovation Mission** will provide **grant-in-aid of Rs. 20 Lakh** to each school that **includes a one-time establishment cost of Rs. 10 lakh** and operational **expenses of Rs. 10 lakhs** for a **maximum period of 5 years** to each ATL.

Eligibility

- **Schools (minimum Grade VI – X)** managed by **Government, local body, or private trusts/society** to set up **Atal Tinkering Laboratories (ATLs)**.

Topic- GS Paper II–Governance


Source- The Hindu

Adultery law must stay for military: govt.


Why in the news?

- The Supreme Court has recently admitted a petition filed by the Ministry of Defence (MoD) seeking to exempt armed forces personnel from the ambit of a **Constitution Bench judgment of 2018** that **decriminalized adultery**.


ADULTERY CAN TAKE YOU TO COURT, NOT TO JAIL




What's struck down: Section 497 of Indian Penal code that said: "Whoever has sexual intercourse with a person who is... the wife of another man, without the consent... of that man, such sexual intercourse not amounting to the offence of rape, is guilty of the offence of adultery"




The problem: It treated woman as victim of the offence and as 'property' of her husband. It was not an offence if a man had sexual intercourse with a woman after getting her husband's consent



After the judgment: Adultery can be a ground for divorce but it's no more a criminal offence attracting up to 5 years' jail term



Govt's problem: Centre in its affidavit before the apex court had said that it would be against the sanctity of marriage to dilute the offence of adultery



Keep in mind: Though adultery per se is no longer a crime, if any aggrieved spouse commits suicide because of partner's adultery, it could be treated as an abetment to suicide—a crime




Photo: Shutterstock

“ Making adultery a crime is retrograde and would mean punishing unhappy people... any law which dents **individual dignity and equity of women** in a civilised society invites the wrath of the Constitution

—CJI Dipak Misra

Ostensibly, society has **two sets of standards of morality** for judging sexual behaviour. One set for its female members and another for males... A society which perceives women as pure and an embodiment of virtue has no qualms of subjecting them to virulent attack: to rape, honour killings, sex-determination and infanticide

—Justice D Y Chandrachud

About Adultery law in India

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- **Section 497** of the Indian Penal Code was a section dealing with **adultery**.
- Under this law, a woman cannot be punished for the offense of adultery.
- Only a man who has consensual sexual intercourse with the wife of another man without his consent can be punished under this offense in India.
- If someone "lives in adultery", the partner can be for divorce.

Reasons were given by Honourable SC

- The Supreme Court called the law unconstitutional because it "treats a husband as the master.
- The Offence of adultery treats women as chattel, dents their dignity.
- The court tested Section 497 on the touchstone of constitutional provisions dealing with the right to equality and guarantees against arbitrariness and discrimination.

New Provisions

- Adultery could continue to be a ground for aggrieved spouses to seek a divorce from their adulterous partners.
- If one of the spouses committed suicide because of the adulterous nature of her/his partner, then the culprit could be proceeded against for the criminal offense of abetting

Reason given by the government for seeking exemption:

- There will always be a concern in the minds of the Army personnel who are operating far away from their families under challenging conditions about the family indulging in untoward activity.
- Personnel of the Army, Navy and the Air Force were a "distinct class because they were governed by special legislation, the Army Act, the Navy Act and the Air Force Act.
- **Adultery amounted to an unbecoming conduct and a violation of discipline under the three Acts.**
- The three laws were protected by **Article 33 of the Constitution**, which allowed the government to modify the fundamental rights of the armed forces personnel.

Topic- GS Paper II–Social Issues

Source- The Hindu

SAATHEE Portal

Why in the news?

- Bureau of Energy Efficiency (BEE) has recently launched **SATHEE Portal** and **Standards and Labelling Programme for Air Compressors and Ultra High Definition (UHD) TV** during the 30th National Energy Conservation Awards (NECA).

About SATHEE Portal

- SAATHEE stands for State-wise Actions on Annual Targets and Headways on Energy Efficiency.
- It is a portal for State Designated Agency for state level activities.
- It will facilitate real-time monitoring of the progress of implementation of various Energy Conservation endeavours at State level.

About Standards and Labelling Programme for Air Compressors and Ultra High Definition (UHD) TV

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- It has been launched on a voluntary basis and the energy consumption standards will be effective from **01st January 2021**.
- This initiative is expected to save around 8.41 Billion Units of electricity for Air Compressors and 9.75 Billion Units for UHD TV till 2030.

Related Information

About Standards and Labelling Programme

- It was launched in 2006 by the Bureau of Energy Efficiency.

Objective

- To provide the consumer an informed choice about the energy-saving and thereby the cost-saving potential of the relevant marketed product.

Targets

- The scheme targets display of energy performance labels on high energy end-use equipment & appliances and lays down minimum energy performance standards.

Topic- GS Paper II– Governance

Source- Indian Express

World's Biggest Vaccination Drive

Why in news?

- The roll-out of the corona virus vaccine is scheduled on **16th January 2021**. **Prime Minister Narendra Modi** has interacted with **Chief Ministers of all the states** to discuss the COVID-19 situation and the vaccination rollout in the country.

Note: Health is a subject matter of State.



- It was the **first the meeting between the Prime Minister and the Chief Ministers** after the **Drug Controller of India** gave **restricted emergency use approval** to two vaccines India- **Astra-Zeneca-Oxford's Covishield**, which is also called '**Covishield**' in India, being manufactured by the **Serum Institute** and **Bharat Biotech's Covaxine**.
- These two vaccines approved are the **most cost-effective vaccines** than any other in the world and have been developed as per the country's needs. In the **first phase the cost of vaccination** for the **3 crore healthcare workers and frontline workers** would be borne by the Central Govt.
- Vaccination would be done through intra-muscular route.

Significant Insights

1. Why it took this long to come up with a vaccine?

- This is because vaccines usually take much longer to research and test. Despite success in lab, all vaccines need to be tested on a variety of people to ensure their safety and efficacy. So far two of the vaccines are considered most viable for India- Astra-Zeneca-Oxford's Covishield and Bharat Biotech's Covaxin- with results expected in the next few months.
- 2. Who approves the vaccine?
 - The DCGI (Drug and Controller General of India), the ICMR (Indian Council of medical Research) and the MoHFW will play a role to determine which vaccine will be sold in India based on the documents the manufacturer provides. They may or may not make public the basis of their decision.
- 3. Who will get preference in vaccination?
 - Healthcare worker, frontline workers, elderly citizens, and those with comorbid illnesses will be given priority. The exercise will be conducted for those above the age of 18.
- 4. Will there be a vaccine for every Indian?
 - With 1.32 billion people in the country and two doses required for most of the world's leading vaccines, it will take months for the entire population to be immunised. The ministry of health and Family Welfare (MoHFW) has indicated that it hopes to vaccinate 250 million people by July next year.
- 5. Will a patient be given a certificate or document that he/she has been vaccinated?
 - There are plans that the Covid-19 vaccination will be tracked digitally to avoid duplication and to remind people of their second shot. Generating a list of beneficiary's process is being planned very meticulously.
- 6. Who will do the vaccination, the government, or private hospitals?
 - The government has announced plans to purchase Covishield from the Serum Institute of India. There is no formal announcement yet on whether the government will retain a monopoly over vaccination.
- 7. Is the vaccination free?
 - In the first phase the cost of vaccination for the 3 crore healthcare workers and frontline workers would be borne by the Central Govt. decision yet to be made for further phases.
- 8. Will it be mandatory for everyone to get vaccinated?
 - The vaccine will be made available eventually for all, but the government has not announced any plans yet on whether COVID-19 immunization will be compulsory. However, companies, housing societies or travel operators could make it compulsory.
- 9. How will the vaccination drive be conducted?
 - Given India has a population of 130 Crore people, the country is drawing on its experience of holding elections to conduct the vaccine drive. The ministry of Home Affairs has even requested Election Commission (EC) to share the latest electoral roll data for Lok Sabha and legislative Assembly elections to identify people belonging to the priority groups.

- Central Govt. has decided the distribution strategy among states based on geographic prioritization or in areas where “infection prevalence is high” this means, Maharashtra and Kerala likely to get it first over other states.

Topic: General Studies Paper I – Social Issues (Health)

Source: RSTV, India Today & The Indian Express

Covid-19 vaccination: 447 report adverse effects in 2 days

Why in the news?

- Recently India has launched the world’s largest vaccination campaign in a bid to curb the spread of coronavirus and aims to vaccinate 30 million frontline workers in the first phase of the programme.

Highlight of the vaccination

- The Covid- 19 vaccination has been driven out in six States— Arunachal Pradesh, Andhra Pradesh, Karnataka, Kerala, Manipur and Tamil Nadu.
- During the Covid- 19 vaccination, there are severe **AEFI (adverse events following immunisation)** were reported among frontline workers who were vaccinated on in Delhi.
- **Telangana** also reported 11 cases of adverse events on the first day of the vaccination drive and West Bengal reported 14 such cases on the same day.
- Of all those vaccinated so far, 447 reported reactions such as pain, mild swelling, mild fever or nausea, with only three persons requiring hospitalisation.

What is Adverse Events Following Immunization (AEFI)?

- According to World Health Organisation (WHO), any untoward medical occurrence which follows immunisation and does not necessarily have a causal relationship with the usage of the vaccine is known as **Adverse Events Following Immunization**.

Topic- GS Paper II–Social issues

Source- The Hindu

WhatsApp’s new privacy policy

Why in the news?

- WhatsApp has recently updated its privacy policy, and users have until February 8 to accept the new terms and conditions.

Highlights of the new privacy policy of WhatsApp’s

- The new policy says how user data is impacted when there is interaction with a business on the platform, and provides more details on integration with Facebook, WhatsApp’s parent company.

Will WhatsApp share your messages with Facebook?

- No. The privacy policy does not change the way WhatsApp treats personal chats. WhatsApp remains end-to-end encrypted — no third party can read them.
- The update does not change WhatsApp’s data sharing practices with Facebook and does not impact how people communicate privately with friends or family.



WhatsApp Protects and Secures Your Personal Messages



WhatsApp cannot see your personal messages or hear your calls and neither can Facebook.



WhatsApp does not keep logs of who everyone is messaging or calling.



WhatsApp cannot see your shared location and neither can Facebook.



WhatsApp does not share your contacts with Facebook.



WhatsApp groups remain private.



You can set your messages to disappear.



You can download your data.

What data will WhatsApp share with Facebook?

- Data exchange with Facebook is in fact, already taking place.
- While users in the European Union can opt out of data-sharing with Facebook, the rest of the world does not have the same choice.
- WhatsApp shares the following information with Facebook and its other companies:
 - a. account registration information (phone number)
 - b. transaction data (WhatsApp now has payments in India)
 - c. service-related information
 - d. information on how you interact with others (including businesses)
 - e. mobile device information and IP address.

What does the policy say about data shared with businesses?

- The new policy explains how businesses get data when a user interacts with them on the platform: content shared with a business on WhatsApp will be visible to “several people in that business”.

Is WhatsApp safe and private?

- According to WhatsApp, all chats on the platform are end-to-end encrypted. As per company, no one other than the sender and the recipient can read your private messages or listen to your calls.

Can WhatsApp see my shared location?

- No, WhatsApp cannot see your shared location except the person you share it with. The locations shared in chats too are end-to-end encrypted.

Related Information

Context of Privacy and India

- The **Puttaswamy judgement** holds that the right to privacy is protected as a fundamental constitutional right **under Articles 14, 19 and 21** of the Constitution of India.

Background

- The Supreme Court of India opined (in **Ram Jethmalani vs Union of India case**.) that “it is important that human beings should be allowed domains of freedom that are free of public scrutiny unless they act in an unlawful manner.”
- Privacy ensures that freedom of speech and expression survives.
- This is because once we are put under surveillance we will start to censor ourselves for fear of state action.

What are the Concerns regarding Privacy in India?

- Having no privacy is like having a perpetual warrant in your name.
- If you feel you are under constant surveillance you will never enjoy freedom and liberty which are your fundamental rights.
- Unregulated access to data can lead to the suppression of dissent and censorship.
- Journalists, Human Rights Activists etc. can be put under an invisible prison of surveillance.
- People who are leading a lifestyle which is deemed a taboo by a certain section of the society might be vilified or targeted example **homosexuals**.
- Private details like travel details, shopping history financial details etc are used to create online granular profiles which are then sometimes used to spread specifically crafted fake news.
- This has increased the potency of fake news in the country.

Topic- GS Paper II–Governance

Source- Indian Express

What kind of an agri-food policy does India need?

Why in the news?

- **Ashok Gulati, the Infosys Chair Professor for Agriculture at ICRIER and member of the Supreme Court-appointed expert panel,** has recently discussed the **three contentious farm laws** with **protesting farmers**.
- According to him, **India needs to frame an optimal agri-food policy** to address both **short-run and long-term challenges**.

Such a policy must have at least four touchstones.

These four touchstones are:

- ✓ It should be **able to produce enough food, feed, and fibre for its large population**.
 - In this regard, the best step is to invest in R&D for agriculture, and its extension from laboratories to farms and irrigation facilities.
 - It is believed that developing countries should invest at least one per cent of their agri-GDP in agri-R&D and extension whereas **India invests about half**.

- ✓ It should do so in a manner that **not only protects the environment — soil, water, air, and biodiversity — but achieves higher production with global competitiveness.**
 - This can be done by switching from the highly subsidised input price policy (power, water, fertilisers) and MSP/FRP policy for paddy, wheat and sugarcane, to more income support policies linked to saving water, soil and air quality.
- ✓ It should **enable seamless food movement from farm to fork, keeping marketing costs low, saving on food losses in supply chains, and providing safe and fresh food** to consumers.
 - This segment has been crying for reforms for decades, especially with respect to bringing about efficiency in agri-marketing and lowering transaction costs.
- ✓ It should be **consumer friendly**, and they should **get safe and nutritious food at affordable prices.**
 - The public distribution of food, through PDS, that relies on rice and wheat, and that too at more than 90 per cent subsidy over costs of procurement, stocking, and distribution, is not helping much, **according to Gulati.**

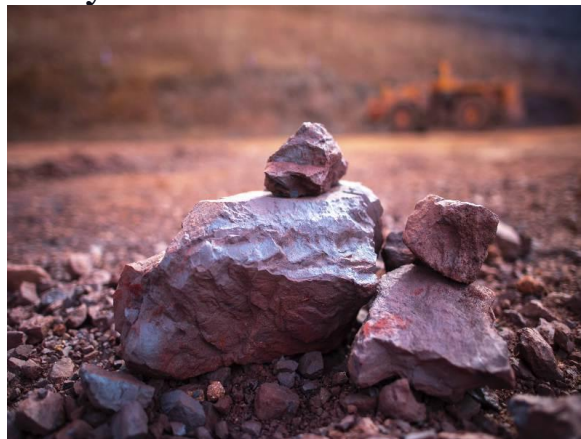
Topic- GS Paper II–Government Policy

Source- The Hindu

Iron-ore Policy 2021

Why in the news?

- The Ministry of Railways released new 'Iron-ore Policy 2021' governing allocation of rakes and transportation of iron ore to help iron and steel industry. The new policy shall come into effect from 10th February 2021.



About Iron-ore Policy 2021

- The policy aims to attune it to customers' present-day needs and assure them that Indian Railways is fully committed to meet the complete requirement of transportation of iron ore customers.
- The policy provides total logistics support to the steel industry to meet the competitive challenges domestically and globally.
- The new policy provisions will be updated in the Rake Allotment System module by Centre for Railway Information Systems (CRIS).



Important highlights of the new policy are:

- Existing categorization based on customer's profile into CBT/Non-CBT customers henceforth is being done away with.
- Old and new plants will be treated similarly as far as allotment/loading of rakes is concerned.
- Categorization of Priority of movement of Iron Ore has now been based on the availability of Railway infrastructure developed by the customer for loading/unloading and the nature of movement between various types of sidings with a view to maximize iron-ore movement by rail.
- The customers' priority preferences will be self-generated by the system (Rake allotment scheme) based on customer profile (name of manufacture, consignor name, consignee name, siding/PFT name and code) fed in the system by the concerning zone.
- Higher priority is given to the movement of iron-ore traffic for domestic manufacturing activity.

Related Information

About Freight Equalisation Policy (FEP), 1952

- India's government adopted this in 1952 to facilitate equal growth of industries all over the country.
- This meant that a factory could be set up anywhere in India, and the central government would subsidize the transportation of minerals.
- The policy was aimed at promoting equitable industrial development by subsidizing long-distance freight transportation.
- The policy applied only to certain commodities such as iron, steel, cement, and others deemed essential for industrial and economic development.
- The policy did not include raw materials such as cotton.
- The vision and rationale behind the policy's introduction were to facilitate equal industrial growth across the country.

Demerits

- It deprived the resources surplus state like Bihar, Odisha from industrial development and was eventually scrapped in 1993, after India economy was liberalized.

Note:

- **Iron-ore** is the **second most important stream of traffic of Railways** and **along with steel after coal**.

Topic- GS Paper II–Government Policy

Source- The Hindu

'Jal Utsav' in Madhya Pradesh

Why in the news?

- **Damhedi village of Anuppur District of Madhya Pradesh** celebrated '**Jal Utsav**' recently to **welcome tap water connections** in their households.



About Jal Jeevan Mission

- It is a **flagship programme of Union Government** is ensuring **safe drinking water** to every **rural household** of the country.
- **Jal Jeevan Mission** has been formed after the **restructured and subsumed the ongoing National Rural Drinking Water Programme (NRDWP)** which will provide **Functional Household Tap Connection (FHTC)** to every rural household, i.e., **Har Ghar Nal Se Jal (HGNSJ)** by 2024.

Objective

- It will **provide piped water supply (Har Ghar Jal)** to all **rural and urban households by 2024**.
- It **envisages supply of 55 litres of water per person per day** to every **rural household** through **Functional Household Tap Connections (FHTC) by 2024**.
- **"Jal Jeevan Mission"** was being allocated **Rs 3.6 lakh crore** in the **budget 2020**.

Focused area

- The **Mission focuses on integrated demand and supply-side management of water** at the **local level**.
- The **creation of local infrastructure for source sustainability measures as mandatory elements, like rainwater harvesting, groundwater recharge and management of household wastewater for reuse**, would be undertaken in **convergence with other government programmes/schemes**.
- The **Jal-Jeevan Mission** is set to be based on **various water conservation efforts like point recharge, desilting of minor**

irrigation tanks, use of grey-water for agriculture and source sustainability.

- The **Mission is based on a community approach to water and includes extensive Information, Education and Communication** as a key component of the Mission.
- The **73rd Amendment to the Constitution of India** has placed the subject of drinking water in the **11th Schedule**.

Funding Pattern:

- The fund sharing pattern between the
 - a. **Centre and states are 90:10**
 - b. **for Himalayan and North-Eastern States, 50:50**
 - c. **for other states, and 100% for Union Territories.**
- The **Jal Jeevan Mission** will **converge with other Central and State Government Schemes** to achieve its **objectives of sustainable water supply management** across the country.

Institutional Arrangement:

1. National Jal Jeevan Mission (NJJM) at the Central level
2. State Water and Sanitation Mission (SWSM) at the State level
3. District Water and Sanitation Mission (DWSM) at the District level
4. Village Water Sanitation Committee (VWSC) at Village level

Village Action Plan (VAP):

- **Every village will prepare a Village Action Plan (VAP) which will have three components:**
 - i. Water source & its maintenance
 - ii. Water supply
 - iii. Grey-water (domestic wastewater) Management.

Need for and significance of the Mission:

- **India has occupied 16% of the world population, but only 4% of freshwater resources.**
- The **major challenges to providing potable drinking water** are depleting **groundwater level, overexploitation and deteriorating water quality, climate change, etc.**
- It is an **urgent requirement of water conservation** in the country because of the **decreasing amount of groundwater level.**
- **Jal Jeevan Mission** will **focus on integrated demand and supply management** of water at the **local level.**

Topic- GS Paper II + Governance

Source-PIB

Question Hour to resume during the Budget session

Why in the news?

- The **Question Hour**, which had been **suspended by the government during the monsoon session**, is all set to resume when Parliament meets for the **Budget session from January 29, 2021.**



Background

- During the **Monsoon Session 2020**, the **Lok Sabha and Rajya Sabha secretariats** notified that there will be **no Question Hour during the Monsoon Session of Parliament**, which has been truncated to September 14-October 1 in view of the Covid-19 pandemic, and that **Zero Hour will be restricted in both Houses**.

What is Question Hour, and what is its significance?

About Question Hour

- The **first hour of every parliamentary sitting** is slotted for the Question Hour. However, in **2014 the Question Hour** was shifted in the **Rajya Sabha from 11 am to 12 noon**.
- It is mentioned in the **Rules of Procedure of the House**.
- During this time, the **members ask questions**, and the **ministers usually give answers**.

Types of questions asked are as follows:

- Starred questions**
 - These are distinguished by an asterisk.
 - It requires an oral answer, and hence supplementary questions can follow.
 - The list of these questions is printed in **green colour**.
- Unstarred questions**
 - It requires a **written answer**, and hence, **supplementary questions cannot follow**.
 - The list of these questions is **printed in white colour**.

Short notice questions

- The **matters of public importance** and of **urgent character** are **considered** under this type of questions.
- It is **asked by giving a notice** of less than ten days.
- It is **answered orally**.
- The **list of these questions is printed in light pink colour**.
- In addition to the ministers, the questions can also be asked to the private members.**

Question to private members

- These questions are mentioned **under Rule 40 of the Rules of Procedure and Conduct of Business in Lok Sabha**.
- A **question may be addressed to a private member** if the **subject matter of the question** relates to some bill, resolution for which that **member is responsible**.
- The list of these questions is **printed in yellow colour**.

How frequently is Question Hour held?

- Question Hour in **both Houses** is held on **all days of the session**. But **there are two days** when an exception is made.
- There is **no Question Hour** on the day the **President addresses MPs** from **both Houses in the Central Hall**.
- The **President's speech** takes place at the **beginning of a new Lok Sabha** and on the **first day of a new Parliament year**.
- **Question Hour** is **not scheduled** either on the day the **Finance Minister presents the Budget**.

About Zero Hour

- It is an **Indian parliamentary innovation** but not mentioned in the **parliamentary rules book**.
- Under this, **Member of Parliaments** can raise matters **without any prior notice**.
- The **zero hour starts immediately** after the question hour and lasts until the agenda for the day (i.e., the **regular business of the House**) is taken up.
- In other words, the **time gap between the question hour and the agenda** is known as **zero hours**.

Topic- GS Paper II–Polity

Source-The Hindu

Regulatory Compliance Portal

Why in the news?

- **Department for Promotion of Industry and Internal Trade (DPIIT)** under the **Ministry of Commerce and Industry** has launched the **Regulatory Compliance Portal** recently.



About the Regulatory Compliance Portal

Objective

- The **objective of the portal** to act as a **bridge** between **citizens, industries,** and the **Government** to **minimize burdensome compliances**.
- It will also act as a **first-of-its-kind central online repository** of all **Central and State-level compliances**.

- All Central Ministries/Departments and States/UTs would examine laws/regulations/rules under their purview and implement an Action Plan to rationalize and simplify all the processes and remove burdensome compliances, decriminalize laws, and repeal redundant Acts.
- The Regulatory Compliance Portal will be instrumental in achieving the vision of a truly Atmanirbhar Bharat and help usher ease of doing business for industry and ease of living for citizens.
- The department has been directed by the Cabinet Secretary to act as the nodal department for coordinating the exercise of minimizing regulatory compliance burden for citizens and businesses.

Significance

- It helps to customized reports of action taken by each Ministry/Department and State/UT also gets generated for monitoring and evaluation.
- It will help in improving India's rank in the World Bank's Ease of Doing Business Report, which will be improved from 142nd in 2014 to 63rd in 2019.

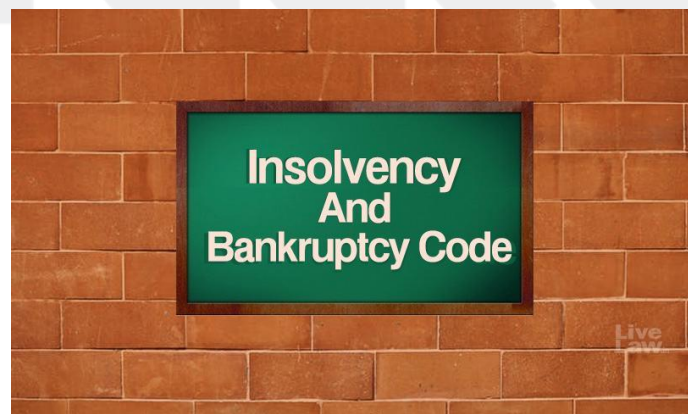
Topic- GS Paper II–Governance +Economics

Source-PIB

Section 32 A of the Insolvency and Bankruptcy Code (IBC)

Why in the news?

- The Supreme Court has recently upheld the validity of Insolvency and Bankruptcy Code (IBC) Amendment Act 2020.



Highlights of the Judgment

- The Supreme Court held that the successful bidders for a corporate debtor under the Insolvency and Bankruptcy Code (IBC) would be immune from any investigations being conducted either by any investigating agencies.
- The SC has upheld the validity of Section 32 A of IBC and said it was important for the IBC to attract bidders who would offer reasonable and fair value for the corporate debtor to ensure the timely completion of the corporate insolvency resolution process (CIRP).
- The court also said that the protection must also extend to the assets of a corporate debtor, which form a crucial attraction for potential

bidders and **helps them in assessing and placing a fair bid** for the company.

- The **apex court** has, however, also said that such **immunity would be applicable** only if **there are an approved resolution plan** and a **change in the management control of the corporate debtor**.

About Section 32A of IBC

- The **protection to successful bidders** and the **assets of a corporate debtor** is provided by the **rules under Section 32A of the Insolvency and Bankruptcy Code**. This is **subject to the successful resolution applicant** being not involved in the commission of the offence.

Why is the SC upholding Section 32A important?

- Since the **Insolvency and Bankruptcy Code** came into being in **2016**, the implementation of the **resolution plan of several big-ticket cases** has been **delayed because of various challenges** mounted by its **own agencies and regulators**.
- The **implementation of the resolution plan** of several **big-ticket cases** has been **delayed because of various challenges** mounted by its **own agencies and regulators**.
- The experts have said that this will give **confidence to other bidders to proceed with confidence** while bidding on such **disputed companies and their assets**.

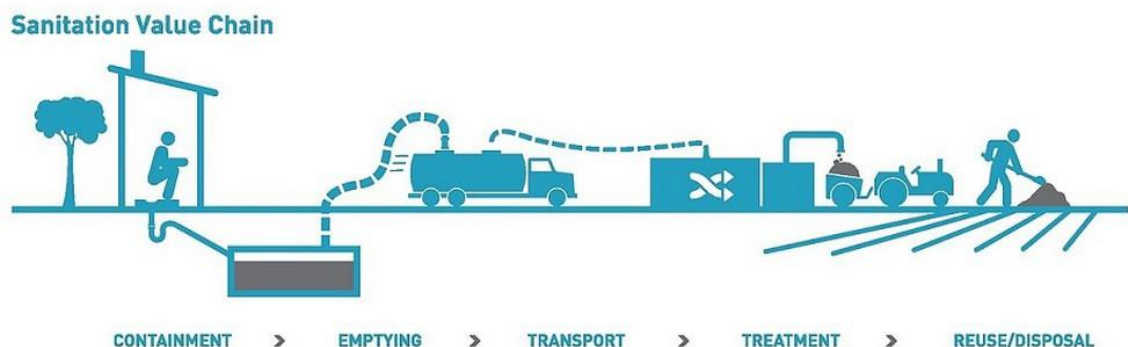
Topic- GS Paper II–Governance + Economics

Source-Indian Express

Faecal sludge and septage management (FSSM) in urban areas

Why in the news?

- NITI Aayog has recently **released a book on faecal sludge and septage management (FSSM) in urban areas**.



About the FSSM

- It has been **jointly developed with the National Faecal Sludge and Septage Management (NFSSM) Alliance**.
- The **book presents 27 case studies across ten states** and **various service and business models** adopted by **Indian cities** while **implementing faecal sludge and septage management (FSSM) initiatives**.
- This book **provides a timely repository of FSSM best practices** adapted and replicated **appropriately across the country**.

- The report mentions that **about 60% of urban households rely** on onsite sanitation systems, which **require dedicated planning to manage waste** collected in **these systems' containment structures**.

About National Urban Faecal Sludge and Septage Management (FSSM)

- The **Ministry of Urban Development** had launched the **National Policy on Faecal Sludge and Septage Management (FSSM)** to facilitate the **nationwide implementation of FSSM** in India as a part of **Swachh Bharat Mission**.
- The policy will lay stress on the **setting up of faecal sewage treatment plants in cities and urban local bodies** and address the **restructuring of sewerage systems in urban India**.
- FSSM also takes care of a **policy lacuna at the national level** to address **gaps in urban sanitation** and lays down a **clear vision and objectives to deal with faecal sludge and septage**.

Related Information

About Swachh Bharat Mission

- The **Centre** has **approved the second phase** of the **Swachh Bharat Mission (Rural)**.
- The second phase will be **implemented on a mission mode** between **2020-21 and 2024-25**.
- The second phase will focus on **Open Defecation Free Plus (ODF Plus)**, which includes **ODF sustainability and solid and liquid waste management (SLWM)**.
- The **ODF Plus programme** will **converge with MGNREGA**, especially for **greywater management**, and **complement the newly launched Jal Jeevan Mission**.
- The programme will also work towards **ensuring that no one is left behind and everyone uses a toilet**.

Fund Sharing

- The **fund sharing pattern** between the **Centre and States** will be **90:10 for the North-Eastern States** and the **Himalayan States** and **UT of J&K**; **60:40** for other **States**; and **100:0** for other **Union Territories**, for all the components.

Topic- GS Paper II–Governance

Source-PIB

PARAKRAM DIWAS

Why in the news?

- **Government of India** has decided to **celebrate the birthday of Netaji Subhas Chandra Bose on 23rd January** every year as '**PARAKRAM DIWAS**'.



About the PARAKRAM DIWAS

- The objective of the day to inspire people of the country, especially the youth, to **act with fortitude in the face of adversity as Netaji did**, and to infuse in them a **spirit of patriotic fervour**.
- **Gazette Notification for declaring 23rd January as “ParakramDiwas”** has been published.

Topic- GS Paper II–Governance

Source-DD News

MCA panel suggests the creation of 'Small Limited Liability Partnerships (LLPs)

Why in the news?

- The **Company Law Committee (CLC)** set up by the ministry of corporate affairs in 2019 has recently suggested a new category of Limited Liability Partnerships know as
- **Small Limited Liability Partnerships which** would be subject to lesser compliance fees and penalties.

About the company law committee (CLC)

- An 11-member committee, chaired by MCA secretary Rajesh Verma, includes Uday Kotak, Shardul Shroff, and Ajay Bahl.
- It was set up to offer suggestions to decriminalise certain compoundable offences in the LLP Act, 2008, and promote ease of doing business.

Highlights of the recommendation

- The recommended decriminalising minor and technical violations of the Limited Liability Partnership (LLP) Act and giving LLPs more borrowing flexibility.
- They proposed a new concept of 'small LLPs' defined as those with ₹20 lakh as a contribution and ₹40 lakh as sales or any specific higher threshold to be prescribed.
- Such small LLPs will need to pay lesser fees and face lesser penalties in case of defaults to reduce the compliance cost on small businesses.
- The panel also proposed that LLPs should be allowed to issue Non-convertible Debentures (NCDs) to entities regulated by the Securities and Exchange Board of India (Sebi) or the RBI.
- At the moment, LLPs are allowed to borrow but not issue debt securities.
- The panel also recommended that a provision for prescribing accounting and auditing standards for LLPs should be incorporated in law.

- The idea is to improve governance in this class of business vehicle.

About Limited Liability Partnerships

- It is an alternative corporate business form that gives the benefits of limited liability of a company and the flexibility of a partnership.
- The LLP can continue its existence irrespective of changes in partners.
- It is capable of entering into contracts and holding property in its name.
- The LLP is a separate legal entity, is liable to the full extent of its assets, but the partners' liability is limited to their agreed contribution in the LLP.
- It is organised and operates based on an agreement.
- It provides flexibility without imposing detailed legal and procedural requirements.
- It enables professional/technical expertise and initiative to combine with risk-taking financial capacity innovatively and efficiently.

Topic- GS Paper II–Governance + Economics

Source-Indian Express

Vaccine Hesitancy among Health Workers & Co-Win Bug Mar Covid-19 Vaccination Drive

Why in the news?

- Glitches in Co-WIN platform and vaccine hesitancy among healthcare workers have resulted in an unusually low pick-up in Covid vaccination in the country after the vaccine program launch.



About Vaccine hesitancy

- It refers to delay in acceptance or refusal of vaccines despite the availability of vaccination services.
- Vaccine hesitancy is complex and context-specific varying across time, place and vaccines.
- World Health Organization declared vaccine hesitancy as one of the top **10 threats to global health in 2019 due to:**
 - a. **The individual and group factors** (Experience with past vaccination, Health system and providers-trust)
 - b. The contextual influences (Communication and media, Religion/ culture/ gender/socio-economic)
 - c. Any vaccine-specific issues (risk, Benefit Mode of administration).

COVID 19 vaccine hesitancy is primarily due to

- Motives of vaccine companies to produce vaccines more quickly than normal.

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- Misplaced concerns like lack of clinical trial of the two vaccines being used in India.

About COVID-19 Vaccine Intelligence Network (Co-WIN) platform

- This user-friendly mobile app for recording vaccine data is working as a beneficiary management platform having various modules.
- The platform will be used for recording vaccine data and will form a database of healthcare workers too.
- The app will have separate modules for administrator, registration, vaccination, beneficiary acknowledgement and reports.
- In the process of forming a database of Healthcare Workers, which is in an advanced stage across all States/UTs, data is presently being uploaded on the Co-WIN platform.

Topic- GS Paper II–Social issues

Source-The Hindu

Shramshakti Digital Data Solution

Why in the news?

- Recently, the Ministry of Tribal Affairs and Goa Government has jointly launched Shramshakti Digital Data Solution for Migrant Workers And Tribal Migrant Cell

About Shramshakti Digital Data Solution

- It would effectively help in the smooth formulation of State and National level programs for migrant workers.
- It will also help facilitate and support approximately 4 lacs migrants from different States to Goa.

Topic- GS Paper II–Social issues

Source-The Hindu

National Voters' Day (NVD)

Why in the news?

- Election Commission of India is celebrating 11th National Voters Day on January 25, 2021.
- This year's theme is: **Making Our Voters Empowered, Vigilant, and Safe and Informed**.



About the National Voters' Day

- It has been celebrated on January 25 every year since 2011, all across the country to mark the foundation day of Election Commission of India, i.e. January 25 1950.
- The NVD celebration's main purpose is to encourage, facilitate, and maximize enrollment, especially for the new voters.

Related Information

ECI's Web Radio: 'Hello Voters'

- This online digital radio service will stream voter awareness programmes.
- It will be accessible through a link on the Election Commission of India website.
- The programming style of Radio Hello Voters has been envisaged to match that of popular FM radio services.
- It will provide information and education on electoral processes through songs, drama, discussions, sports, stories of elections etc. in Hindi, English and regional languages from all over the country.

Topic- GS Paper II–Governance

Source-PIB

The Inequality Virus

Why in the news?

- Recently an Oxfam report, titled '**The Inequality Virus**', has found that Covid pandemic enormously exacerbated existing inequalities in India and worldwide.



Key highlights of the report

- The report highlighted that as the pandemic stalled the economy, forcing millions of poor Indians out of jobs, India's richest billionaires increased their wealth by 35 per cent.
- The report stated that the wealth of Indian billionaires increased by 35 per cent during the lockdown and by 90 per cent since 2009 to \$422.9 billion ranking India sixth in the world after US, China, Germany, Russia and France.
- India's top 100 billionaires saw their fortunes increase by Rs 12.97 trillion during lockdown which was enough to give every one of the 138 million poorest Indians a cheque for Rs 94,045 each.

- The report points out that 170,000 people lost their jobs every hour in April 2020.
- According to Oxfam's calculations, the increase in wealth of India's top 11 billionaires during the pandemic could sustain the NREGS scheme for 10 years or the health ministry for 10 years.
- **The pandemic also spiked health and education inequalities.**

How the pandemic aggravated all manners of inequalities?

Sectoral inequalities

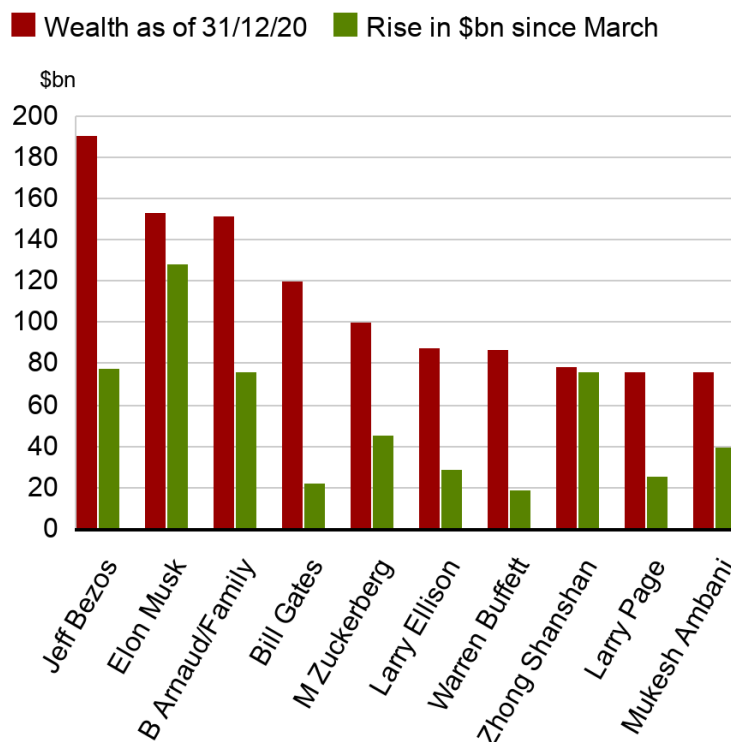
- India's large informal workforce was the worst hit as it made up 75 per cent of the 122 million jobs lost.
- The 40-50 million seasonal migrant workers typically engaged working in construction sites, factories etc. were particularly distressed.

Education inequalities

- Over the past year as education shifted online, India saw the digital divide worsening inequalities.
- Only **3 per cent** of the poorest **20 per cent of Indian** households had access to a computer, and just 9 per cent had access to the internet.

March of the billionaires

How their wealth rose from March to December 2020



Source: Oxfam/The Inequality Virus

BBC

Healthcare

- Oxfam found that since India does not report case data desegregated by socio-economic or social categories, it is difficult to gauge the disease's distribution amongst various communities.
- "The spread of disease was swift among poor communities, often living in cramped areas with poor sanitation and using shared common facilities such as toilets and water points.
- In this regard, it found that **only 6 per cent of the poorest 20 per cent households** had access to non-shared sources of improved sanitation, compared to **93 per cent of the top 20 per cent households in India**.

Gender disparities

- The unemployment rate among women rose from already high 15 per cent before Covid to 18 per cent.
- This increase in unemployment of women can result in a loss to India's GDP of about 8 per cent or \$218 billion.
- According to a survey by the Institute of Social Studies Trust, of the women who retained their jobs, as many 83% were subjected to a cut in income.
- Beyond income and job losses, poorer women also suffered healthwise because of the disruption in regular health services and Anganwadi centres.
- The pandemic also fuelled domestic violence against women.
- As of November 30, 2020, domestic violence cases rose by almost 60% over the past 12 months.

Topic- GS Paper II–Social Issues

Source-The Hindu

SC notice to Centre on PIL seeking Law Commission to be declared 'statutory body'

Why in the news?

- The Supreme Court has recently issued notice on a PIL urging it to direct the Centre to declare the Law Commission of India as a **"statutory body"** and to appoint a chairperson and members for the body within a month.



About the Law Commission of India

- It is an executive body established by an order of the Government of India.
- The First Law Commission was established during the British Raj in 1834 by the Charter Act of 1833 and after independent it was first established in 1955.

Tenure

- It has tenure of three Years.

Composition

- The 22nd Law Commission will be constituted for three years from publication of its Order in the Official Gazette.
- It will consist of:
 - a full-time Chairperson
 - four full-time Members (including Member-Secretary)
 - Secretary, Department of Legal Affairs as ex-officio Member;
 - Secretary, Legislative Department as ex officio Member; and
 - not more than five part-time Members.

Functions

- It identifies obsolete laws.
- The laws which are no longer relevant, not in harmony with the existing climate and laws which require change.
- It suggests suitable measures for quick redressal of citizens' grievances in the field of law.
- It enables poor, to take benefit out of the legal process.
- Likewise, it examines the laws for promoting gender equality.
- However, the recommendations of the commission are not binding on the government or concerned department may accept or reject these recommendations.

Terms of reference

- The Law Commission shall, on a reference made to it by the Central Government or suo-motu, undertake research in law and review of existing laws in India for making reforms therein and enacting new legislations.
- It shall also undertake studies and research for bringing reforms in the justice delivery systems to eliminate delay in procedures, speedy disposal of cases, reduction in cost of litigation etc.

Topic- GS Paper II–Polity

Source-Indian Express

Finalise policy on rare diseases by March 31

Why in the news?

- The Delhi High Court has recently directed the Centre to finalise the National Health Policy for Rare Diseases of 2020 by March 31 and make operational provision of crowdfunding envisaged under the law for treatment of high-cost rare diseases.

What is a rare disease?

- According to the World Health Organisation, rare disease as an often debilitating lifelong disease or disorder with a **prevalence of 1 or less per 1,000 populations**.

According to the Indian Council of Medical Research (ICMR), **it is one in 2,500 people or less**.

Related Information

Draft National Policy for Rare Diseases 2020

- The draft policy provides for lowering the incidence of rare diseases based on an integrated preventive strategy.

- It aims to provide access to affordable health care to patients of rare diseases which are amenable to a one-time treatment.
- The focus of the draft policy is on prevention of rare diseases as a priority for all the three groups of rare diseases identified by experts.
- For the purpose of the policy, the term rare diseases are categorised into 3 groups:
 - Disorders amenable to one-time curative treatment.
 - Diseases requiring long term / lifelong treatment having a relatively lower cost of treatment and benefit has been documented in the literature, and annual or more frequent surveillance is required.
 - Diseases for which definitive treatment is available but challenges are to make an optimal patient selection for the benefit, very high cost and lifelong therapy.

Financial support

- A maximum of ₹15 lakh could be provided to each patient under the umbrella scheme of Rashtriya Arogya Nidhi, and the beneficiaries would not be limited to families below the poverty line.
- It also would be extended to 40% of the population in accordance with the norms of the Pradhan Mantri Jan Arogya Yojana.

Topic- GS Paper III–Health Issues

Source-The Hindu

Doping

Why in the news?

- Union Minister of Youth Affairs & Sports has recently, launched a breakthrough **Reference Material** for use in chemical testing in the field of anti-doping.

About the Reference Material

- It has been synthesized by National Dope Testing Laboratory (NDTL) and National Institute of Pharmaceutical Education and Research (NIPER), Guwahati.
- This Reference Material (RM) has been identified by NDTL as one of the rarely available Reference Material globally.
- It would be used to strengthen anti-doping measures in all World Anti-Doping Agency (WADA)-accredited laboratories.
- The availability of this Reference Material would help the anti-doping laboratories to strengthen their testing capacity.
- This will help in the greater cause of promoting fair play in sports.

About the National Dope Testing Laboratory (NDTL)

- It is an autonomous body under Ministry of Youth Affairs and Sports, Government of India based in Delhi.
- It is the only laboratory in the country responsible for human sports dope testing.

Topic- GS Paper III–Health Issues

Source-The Hindu

Common Trust Network

Why in the news?

- The Union Minister of Health & Family Welfare has recently addressed the event on Restoring Cross Border Mobility by the **World Economic Forum's Common Trust Network** through a Video Conference.



Common Trust Network



Partners

Commons Project

About Common Trust Network

- As countries worldwide work to overcome the COVID-19 pandemic and restart their economies, they all face the challenge of reopening their borders and allowing travel and commerce to resume while protecting their populations' health.
- As they contemplate relaxing border restrictions, quarantine and lock-downs, governments and industry need a more trustworthy model for validating individuals' health status.

The Common Trust Network is designed to

- i. empower individuals with digital access to their health information
- ii. make it easier for individuals to understand and comply with each destination's requirements
- iii. help ensure that only verifiable lab results and vaccination records from trusted sources are presented

The Common Trust Registry

- The Common Trust Network is enabled by a global registry of trusted laboratory and vaccination data sources, standard formats for lab results and vaccination records, and standard tools to make those results and records digitally accessible.
- A common global registry also enables the Common Trust Network for governments and other destinations to publish their health screening entry rules in a common format, making it easier for travellers and the travel industry to understand and comply with each destination's requirements.

Topic- GS Paper III–Health Issues

Source-PIB

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International Matters

H-1B Work Visa

Why in the news?

- Recently, the **US administration** has once again **amended the H-1B visa norms** by changing the **rules to give priority to higher wages and skills** for the selection of **deserving candidates**.



What is H-1B Work Visas?

- In **1952**, after the **US** started expanding its **presence in the science, technology, engineering, and mathematics disciplines**, it felt the need to **hire quality workers**.
- The **need to hire workers** to pave the way for the introduction of the **H-1 work visa system**.
- The **work visa system** was further **subdivided into H-1B, H-2B, L1, O1, and E1 visas**, depending on the **qualification required**.
- The **H-1B visa is a non-immigrant visa** that **allows US companies to employ foreign workers** in speciality occupations that **require theoretical or technical expertise**.

New wage-based H-1B work visa regime

- The **new wage-based work visa regime** will now **give priority in the selection of visas to applications** of those **employers where the “proffered wage equals or exceeds”** the prevailing level in that **area of employment**.
- The **proffered wage** is the wage that the **employer intends to pay the beneficiary**.
- This will be done for both the **65,000 regular visas** and the **20,000 advanced degree exemption visas**.
- This regime will also take into account the **skill set that the respective worker** brings to the **country and cross-check it whether such a skill set** is available at the **same cost among the US workers**.
- It will be **implemented for both the H-1B regular cap and the H-1B advanced degree exemption**, but it **will not change the order of selection** between the two as established by the **H-1B registration final rule**.
- It will **incentivize employers to offer higher salaries**, and/or petition for **higher-skilled positions**, and **establish a more certain path for businesses to achieve personnel needs and remain globally competitive**.

What was the lottery system for selection of H-1B?

- Currently, every year the **US administration issues 85,000 H-1B work permits.**
- Of these, **65,000 are for people with speciality occupations**, while the rest is **reserved for -foreign workers** who have earned a **master's or a higher university degree in the US.**
- Since the **number of applications for H-1B visas** filed each year exceeded the **65,000 caps in the speciality occupations** and **20,000 for the higher education category**, the **US Citizenship and Immigration Services** then **employed a random lottery selection** of the **eligible applicants to fill the 65,000 vacancies** and then moved on to fill the next 20,000.
- This **lottery system** was **completely randomized** and **did not consider** any requirements such as **wages, skills or needs of the employer.**

Topic- GS Paper II–International Relation

Source- Indian Express (Explained)

India at United Nation High Table

Why in the news?

- **External Affairs Minister of India, Dr. S. Jaishankar** recently made an **indirect reference to both China and Pakistan** at **UN Security Council (UNSC)** for **making false distinctions** between “good” and “bad” terrorists in its first session of UNSC for 2021-2022.

Related Information

- **India** has been **elected to the United Nations Security Council (UNSC)** as a **non-permanent member** from the **Asia-Pacific category for 2021- 2022.**
- This was for the **eighth time that India** has been **elected to UNSC.**



Previously Served

- **India** has **served seven times earlier:** 1950-1951, 1967-1968, 1972-1973, 1977-1978, 1984-1985, 1991-1992 and 2011-2012.
- **India** should work **with all member countries to promote** global peace, security, resilience, and equity.

About United Nations Security Council (UNSC)

- It is **one of the six principal organs of the United Nations** and is **charged with the maintenance of international peace and security.**

- Its **powers include the establishment of peacekeeping operations, the establishment of international sanctions, and the authorization of military action** through **Security Council resolutions**.

Power to issue binding resolutions

- It is the **only UN body with authority to issue binding resolutions** to member states.
- The **Security Council** consists of **fifteen members in whom five members are permanent body and 10 non-permanent members**.
- **Russia, the United Kingdom, France, China, and the United States—**serve as the **body's five permanent members**.
- These **permanent members can veto any substantive Security Council resolution**, including those on the **admission of new member states or candidates for Secretary-General**.
- The Security Council also has **10 non-permanent members**, elected on a regional basis to serve **two-year terms**.
- The **body's presidency rotates** monthly among its members.

Principal Organs of the United Nations

- United Nations Secretariat
- United Nations General Assembly
- International Court of Justice
- United Nations Security Council
- United Nations Economic and Social Council
- United Nations Trusteeship Council

Topic- GS Paper II–International Organization

Source- Indian Express

Donald Trump becomes first U.S. President to be impeached twice

Why in news?

- President Donald Trump was **impeached by the U.S. House on a single charge of incitement of insurrection for his role** in a riot by his supporters that **left five dead and the capitol ransacked**, putting an indelible stain on his legacy with only a week left in his term.

Historic Vote

- US House of representatives have made **US president Donald Trump, the first president in American history** ever to be **impeached twice**. The House formally charged the acting US President of inciting an insurrection. With national guard forces, also the **police protecting the Capitol**, the vote was held a week after a violent mob of Donald Trump's supporters besieged the Capitol.



- This is the **second time** he is **impeached in 13 months**. The impeachment of the President confirmed that no one is above the law. The resolution is moved without objection with 232 votes in favour.
- **US President elect Joe Biden** will take office on **20th January 2021**.
- Earlier, the **impeachment was instigated an enquiry over the matter that Donald Trump offered aid Ukraine in return for investigating Joe Biden**, the former U.S. Vice-President who was seeking the White House in 2020. Trump's actions were viewed as serious violation of the Constitution.

How the Process of Impeachment works in America?

- As per the U.S. Constitution, the president shall be removed from office after being impeached for treason, bribery or “other high crimes and misdemeanours”. That removal takes place in two distinct parts: impeachment, which is conducted by the House of Representatives, and a trial in the Senate.
- To remove a president from office, two-third of the senator's present must vote to convict.
- Impeachment trials are like a criminal trial, with a judge (the chief justice of the U.S. Supreme Court), a prosecution (members of the House appointed to manage the trial), a defiant (the impeached president and the president's legal counsel), and a jury (the Senate). After hearing evidence and deliberating in a private session, the Senate votes to acquit or convict.

How quickly could a president be impeached?

- It depends! The House only requires a simple majority to impeach. It could move to pass an impeachment resolution and articles of impeachment without an investigation or a vote by the House Judiciary Committee.

Who other U.S. Presidents were impeached in the past?

1. President Andrew Johnson – in 1868.
2. Richard Nixon – was the subject of formal impeachment proceedings in 1973 and 1974
3. President Bill Clinton – in 1998.

Topic: GS Paper II- International Relations

Source: RSTV, The Hindu

Joe Biden executive orders will reverse Trump on Paris climate deal and Iran Nuclear Deal

Why in the news?

- **Joe Biden** the US President will sign a series of executive orders in his first days in office to return the US to the Paris climate accords and the Iran nuclear deal.

Background

- The US formally left the **Paris Climate Agreement on 4th Nov 2020**; three years after President Donald Trump announced his intention to undo what had been seen as a key achievement of his predecessor Barack Obama.

Why did the US leave the Paris agreement?

- During Donald Trump presidential campaign in 2016, he had described the Paris Agreement as “**unfair**” to US interests, and had promised to pull out of the agreement if elected.
- So in June 2017, months after his inauguration, Trump announced his government’s decision to quit the accord
- The US could not immediately exit the Paris Agreement; however, as United Nations rules permitted a country to apply for leaving three years after the accord came into force, i.e. **November 4, 2019**.
- The US formally applied to leave on that day, and the departure automatically came into effect on November 4, 2020, at the end of a mandatory year-long waiting period

Iran nuclear deal

Background

- Iran has completely withdrawn from JCPOA (Joint Comprehensive Plan of Action) nuclear deal. The announcement came after the US troops killed **General Qassem Soleimani**.

About the Iran nuclear deal

- The Iran nuclear deal (or the Joint Comprehensive Plan of Action (JCPOA)) was signed between Iran and the P5, plus Germany and the EU in 2015.
- The P5 is the 5 permanent members of the UNSC (US, China, France, Russia, and UK).]
- The deal aimed at curbing Iran's nuclear programme.

Under the deal:

- most of Iran’s enriched uranium was shipped out of the country
- a heavy water facility was rendered inoperable
- operational nuclear facilities were brought under international inspection
- In return, the deal involved lifting of international sanctions on Iran.

Why has US pulled out of the deal?

- Trump and opponents to the deal say it is flawed because it gives Iran access to billions of dollars but does not address Iran’s support for groups the U.S. considers terrorists, like Hamas and Hezbollah.
- They note it also doesn’t curb Iran’s development of ballistic missiles and that the deal phases out by 2030.
- They say Iran has lied about its nuclear program in the past.

Topic- GS Paper II–International Relation

Source- Indian Express

Joe Biden swon-in as 46th President of United States

Why in the news?

- **Joe Biden** takes office as the **46th President of United States** on 20th January 2021. In his first speech Joe Biden promises to be **President for all Americans**.
- **Vice President Kamala Harris** has **become the first woman, first African American** and **first person of South Asian descent** to hold the post.



- He also imposed a **national mandate requiring mask-wearing in federal buildings** and sent a **sweeping immigration bill to Congress** that would **create an eight-year path to citizenship for millions of immigrants** living in the country illegally.
- **Biden has signed several executive orders**, addressing the **pandemic, the US economy, climate change** and **racial injustice**.
- **Prime Minister of India** congratulated Joe Biden on assuming the office of U.S. President.
- **India** is committed to **look forward to working with him for strengthening India-U.S. strategic ties** and taking **bilateral relations to greater heights**.

Topic: GS Paper II (International Relations)

Source: The Hindu

US President's Power to Pardon and Commute

Why in the news?

- The **outgoing US President** has exercised his **power under the US Constitution to pardon or commute sentences of 143 individuals**, including his **one-time chief strategist Steve Bannon**.



US President's clemency powers

- The **US President** has the **constitutional right to pardon or commute sentences** related to **federal crimes**.
- The **Supreme Court** has held that the **President's pardoning power** is "**granted without limit**" and **cannot be restricted by Congress**. Clemency is a **broad executive power** that is discretionary which implies that the **President is not answerable** for his **pardons and does not have to provide a reason for issuing one**.
- It implies that the **President cannot issue a pardon** in cases of **impeachment of officials**.

Limitations of US President's Pardoning Power

- **Article II, Sec 2 of the Constitution** says Presidents "**shall have the power to grant Reprieves and Pardons for Offenses against the United States, except in Cases of Impeachment**".
- The **President's pardoning** is **not available for state crimes**, which means that those who have been **pardoned by the President** can still be tried under **individual states' laws**.

Note:

- The **highest number of clemency grants** by a President in **US history (3,796)** came during **Franklin D. Roosevelt's tenure**, the **country's leader** during **World War II** and the **longest occupant of the White House 12 years**.

Further Reading: Pardoning Power of Indian President

Topic- GS Paper II–Polity + International Matter

Source- Indian Express

China defends new village in Arunachal Pradesh

Why in the news?

- Recently, **India's Ministry of External Affairs** said that they were aware of the **construction "along the LAC"**.
- This followed a report showing satellite images of the village, built between **November 2019 and November 2020** and **located a couple of kilometres across the LAC**, beyond what India sees as the border separating Arunachal Pradesh and Tibet, **on the banks of the Tsari Chu river in Upper Subansiri district in Arunachal**.



Background

- Indian officials said this area has been under Chinese control since 1959.

- There are close to two dozen spots (along the entire length of the LAC) in all sectors where India and China disagree on its alignment.
- Indian officials said China had earlier built a permanent construction of military barracks in this area.
- Analysts have seen the village's construction as a move to bolster China's claim to the area, and part of a broader recent push by China to build civilian settlements in disputed frontier areas, which it has also done with Bhutan.

China response

- China said its construction of a village across the Line of Actual Control (LAC) in Arunachal Pradesh was "beyond reproach" because it had "never recognised" Arunachal Pradesh.
- China's development and construction activities within their territory are normal.
- This is beyond reproach as it is in their territory.

Poverty alleviation Programme of China

- The construction appeared to be part of China's programme to build what it calls "poverty alleviation" villages.
- Under the initiative, launched after a Tibet economic work conference in 2015, some 600 villages have been built, of which around 100 are in border areas.
- While the government calls them poverty alleviation villages, some of the villages in border areas are very remote with little economic activity. Hence, they appear to have a strategic purpose.
- People had been moved to some of the new villages from other parts of Tibet, including families of herders, to occupy the newly built houses.
- Another village built last year, called Pangda, was built 2-3 km inside what Bhutan sees as its territory, in another disputed area.

Topic- GS Paper II–International Relation

Source-The Hindu

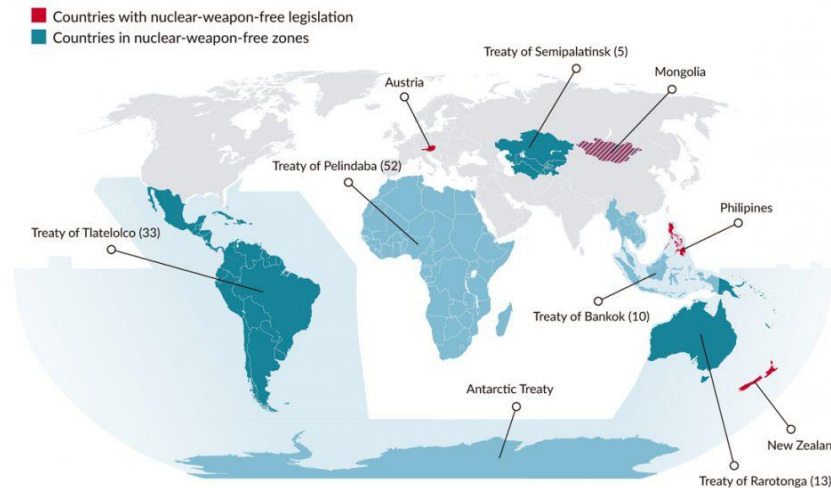
Treaty on the Prohibition of Nuclear Weapons

Why in the news?

- Recently, **the Treaty on the Prohibition of Nuclear Weapons** become the first-ever Treaty to ban nuclear weapons entered into force.

About the Treaty on the Prohibition of Nuclear Weapons

- The United Nations General Assembly approved the Treaty on the Prohibition of Nuclear Weapons in 2017.
- The Treaty includes a comprehensive set of prohibitions on participating in any nuclear weapon activities.
- These also include undertakings not to develop, test, produce, acquire, possess, stockpile, use or threaten to use nuclear weapons.



Salient features of Treaty

- The Treaty prohibits the deployment of nuclear weapons on national territory and the provision of assistance to any State in the conduct of prohibited activities.
- States parties will also be obliged to prevent and suppress any activity prohibited to a State Party under this Treaty undertaken by persons or territory under its jurisdiction or control.
- The Treaty also obliges States parties to provide adequate assistance to individuals affected by nuclear weapons use or testing.
- It also takes necessary and appropriate environmental remediation measures in areas under its jurisdiction or control contaminated due to activities related to the testing or use of nuclear weapons.
- Non-nuclear-weapon states are required to have, at a minimum, a comprehensive safeguards agreement with the **International Atomic Energy Agency (IAEA)** "without prejudice" to any future additional agreements.

India's stand on Treaty on the Prohibition of Nuclear Weapons

- India said that it doesn't support the Treaty on nuclear-weapon prohibition.
- India believes that the Treaty does not constitute or contribute to the development of customary international law, nor does it set any new standards or norms.
- India supports the commencement of negotiations on a comprehensive Nuclear Weapons Convention in the Conference on Disarmament.

Global Efforts for Nuclear Disarmament

- The Treaty on the Non-Proliferation of Nuclear Weapons (NPT), the Comprehensive Nuclear-Test-Ban Treaty (CTBT) and the New START Treaty (between the USA and the Russian Federation) are few of the most important global efforts towards nuclear disarmament.

Note:

- India has not signed **Non-Proliferation of Nuclear Weapons** and **Comprehensive Nuclear-Test-Ban Treaty (CTBT)**.

Topic- GS Paper II–International Organization

Source-The Hindu

Inclusive reforms must for UNSC to be effective

Why in the news?

- Recently **India** has said that the **UN Security Council** is finding itself unable to **act effectively to address increasingly complex issues of international peace and security** as it **lacked inclusivity** of those who need to be members of the world body's powerful organ.
- **India**, along with **Brazil, Japan and Germany** are pressing for urgent reform of the **UN Security Council** and a **permanent seat in the reformed 15-member** top organ of the world body.



Need for UN reforms

- **Since 1993**, the **UN General Assembly** has hotly debated Council reform but has not reached an agreement.
- These factors are:

Inequality

- The Security Council membership has changed very little since its inception in 1945, even though the number of UN member states has almost quadrupled.
- The UNSC does not include a permanent member from the African, Australian, and South American continents, and the G-4 group of Brazil, India, Germany and Japan.

Exclusiveness

- The differences between permanent and non-permanent seats produce a highly unequal and inefficient Security Council.
- **The five permanent members (P5) – Britain, France, United States, Russia, and China** – possess permanent seats and have the veto's privilege whilst the status of non-permanent members is low.
- The performance of the Security Council in maintaining international peace and security has been poor. It failed in its actions in Somalia, Bosnia and Rwanda.

Stalled Intergovernmental Negotiations (IGN)

- The Intergovernmental Negotiations framework (IGN) is a group within the United Nations that looks into UNSC reforms, but it had made no progress since 2009 when it was formed.

G4 group

- **The G4** has also called for an urgent need for transparency and application of general assembly's **rules of procedure to the intergovernmental negotiations.**

Ezulwini Consensus and Sirte Declaration

- The "**Common African position**" for UNSC expansion has been stipulated under Ezulwini Consensus and Sirte Declaration, both of which call for at least two permanent and 5 to 2 non-permanent UNSC seats given to African countries.
- The **Ezulwini Consensus and Sirte Declaration**, containing the common African position on the UN Security Council's reform, were developed by a committee on UN reform established by the **African Union Summit in 2005.**

Related Information

About G4 Group

- It is a group of 4 countries comprised of India, Brazil, Germany and Japan.
- It's primary aim to get the permanent member seats in the United Nation Security Council.

Coffee Club

- It is a movement, also known as **Uniting for Consensus.**
- It is developed in the 1990s in opposition to the possible expansion of permanent seats in the United Nations Security Council.

Topic- GS Paper II–International Organization

Source-The Hindu

Cairn threatens Indian asset seizures abroad in tax case

Why in the news?

- Recently, **U.K.-based Cairn Energy major** has assured the **Indian Govt** that it will **move to freeze assets including bank accounts** in different world capitals, only if India fails to discuss payment of amount awarded by an **international tribunal award of \$1.2 billion.**
- This is in the wake of damages against India in the retrospective taxation case.



Background

- The **three-member tribunal** at the **Permanent Court of Arbitration (PCA)** at **The Hague** that had delivered its verdict on **December 21, 2020**, had held unanimously in favour of Cairn and against the Indian government, ruling that the tax levied fell afoul of the bilateral investment pact.

- It also awarded Cairn \$1.2 billion in damages for the tax authorities' decision to take by force and subsequently sell the company's shares, and freeze dividend payments as well as tax refunds, to recover the disputed tax dues.

Assets under Consideration

- The assets already under consideration could include Embassy bank accounts, non-diplomatic premises, Air India planes and state-owned ships in several places including the U.K., Holland, France, Canada, and the U.S.
- The move would be akin to similar action against a Pakistan International Airlines (PIA) plane seized in Malaysia earlier this month over a dispute with an Irish company, or the seizure of a Venezuelan ship ordered by a court in favour of U.S. company ConocoPhillips in 2018.
- Cairn also cited clauses in the **U.K.-India Bilateral Investment Treaty, the UNCITRAL arbitration rules, and the New York Convention** to which **India is a signatory**.

Related Information

About the Permanent Court of Arbitration

- It was established by the **First International Peace Conference** held at The Hague, the Netherlands, in 1899.

Objective

- The objective is “to facilitate the arbitration of international disputes”.

Structure of PCA

- It consists of an **Administrative Council** and an **International Bureau**.
- The Court is not ‘permanent’ in nature; rather it is a Court selected from among a permanent panel of arbitrators.
- Each member is eligible to nominate four persons who have competency in International law and who are of the highest moral reputation and can accept the duties of an arbitrator.
- There are 225 arbitrators, appointed for a six-year term.
- The Administrative Council is composed of diplomatic representatives of the contracting parties accredited to The Hague.
- The **President of the Council** is the **foreign minister of the Netherlands**.

Topic- GS Paper II–International Organization + International relation
Source-The Hindu

US-Taliban Deal

Why in the news?

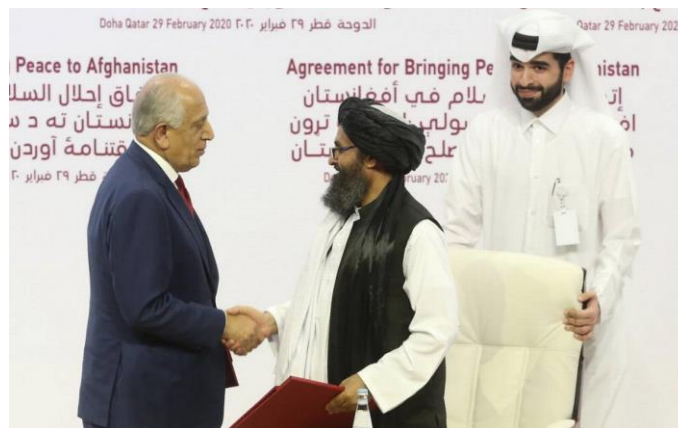
- The Biden administration has recently said that it will review the US-Taliban deal to see if the Taliban can keep their end of the bargain.

Background

- The deal was signed in February 2020 and it is meant for “Bringing Peace to Afghanistan”.
- The deal aimed at enabling the US and NATO to withdraw their troops, which has been a longstanding demand of the Taliban.

About the Agreement

- The four-page pact was signed between Zalmay Khalilzad, US Special Representative for Afghanistan Reconciliation, and Mullah Abdul Ghani Baradar, political head of the Taliban.



- The agreement said that a permanent and comprehensive ceasefire will be an item on the intra-Afghan dialogue and negotiations agenda.
- The intra-Afghan negotiations participants will discuss the date and modalities of a permanent and comprehensive ceasefire, including joint implementation mechanisms.

Significance of US-Taliban Deal

- The deal's important elements include the withdrawal of US troops and bringing down NATO or coalition troop numbers within 14 months from when the deal was signed.
- The main counter-terrorism commitment by the Taliban is that it will not allow any of its members, other individuals or groups, including al-Qaeda, to use Afghanistan's soil to threaten the security of the United States and its allies.
- Other elements include removal of sanctions on Taliban leaders, releasing prisoners held by both sides and ceasefire.
- The joint declaration is a symbolic commitment to the Afghanistan government that the US is not abandoning it.

Topic- GS Paper II–International Relation

Source-Indian Express

Russia moots West Asia meet as the U.S. resets Palestinian ties

Why in the news?

- Russia has recently backed a Palestinian proposal for a **West Asia peace conference**, suggesting that it could be held at the ministerial level in spring or summer. The U.S. said it would move towards renewing ties with the **Palestinians under Joe Biden**.

Participants

- There are roughly 10 participants would include Israel, the Palestinians, the four members of the West Asia diplomatic quartet (Russia, the U.N., the U.S. and the E.U.), along with four Arab states — Bahrain, Egypt, Jordan and the UAE.

Related Information

West Asia Peace Plan

- The **West Asia peace plan unveiled by U.S. President Trump** seeks to give the Israelis what they have long wanted — an expansive state with

Jerusalem as its "undivided capital" and tight security control over a future Palestinian state.

What is the plan?

- The Trump plan seeks to address most of the contentious issues in the conflict such as the border of Israel, the status of Palestinian refugees, Jewish settlements on the West Bank, land swap between Israel and Palestine, Israel's security concerns the status of the city of Jerusalem.
- The Palestinian refugees, who were forced out from their homes during the **1948 Arab-Israeli** war that followed Israel's state in historic Palestine, would not be allowed to return.
- They could move to the future Palestinian state, be integrated into the host countries or settled in other regional countries.

Oslo Accords

- According to the **Oslo Accords**, the West Bank was divided into three areas, and only one of them is under the direct control of the Palestinian Authority.
- The plan proposes some land swap for the Israeli annexation of the West Bank Jewish settlements.
- It seeks to enlarge Gaza and connect the strip with the West Bank through a tunnel.
- The Arab towns in the southeast of Israel, close to Gaza, could become part of a future Palestinian state.

Implications for Palestine

- The Palestine position is backed by most of the world powers by forming an independent, sovereign Palestinian state based on the 1967 border.
- It means the West Bank and the Gaza Strip with East Jerusalem as its capital including the Old City that houses Haram esh-Sharif, also known as Temple Mount, a holy site for both Muslims and Jews.
- Issues like the right of return of the Palestinian refugees are to be settled in final negotiations.
- But the U.S. has effectively rejected the Palestinian claims outright and asked them to make more compromises.
- He seeks to give Jerusalem and about 30% of the West Bank to the Israelis and has denied the right of return of the Palestinian refugees.
- The Palestinians should take action against militant groups, stop supporting Palestinian families of those jailed or killed by Israel, and refrain from questioning the occupation in international fora.

Topic- GS Paper II–International Relation

Source-The Hindu

Russia gives the nod to extend START treaty

Why in the news?

- Russian lawmakers have recently approved the **New START treaty's extension for a further five-year period.**

About the New START Treaty

- It is a treaty between the United States of America and the Russian Federation on measures to reduce and limit strategic offensive arms.
- It entered into force on **5th February 2011.**



- New START had replaced the 1991 **START I treaty**, which expired December 2009, and superseded the 2002 Strategic Offensive Reductions Treaty (SORT), which terminated when New START entered into force.
- It is a successor to the START framework of 1991 (at the end of the Cold War) that limited both sides to 1,600 strategic delivery vehicles and 6,000 warheads.

Under terms of the treaty

- A number of strategic nuclear missile launchers will be reduced by half.
- A new inspection and verification regime will be established, replacing the SORT mechanism.
- The number of deployed strategic nuclear warheads is limited to 1,550.
- The number of deployed and non-deployed intercontinental ballistic missile (ICBM) launchers, submarine-launched ballistic missile (SLBM) launchers, and heavy bombers equipped for nuclear armaments to 800 will be limited.

Topic- GS Paper II–International Relation

Source-The Hindu

Joint Comprehensive Plan of Action

Why in the news?

- Recently, U.S. Secretary of State Antony Blinken confirmed the administration's position that if Iran were to become compliant with the terms of the now-defunct Joint Comprehensive Plan of Action (**JCPOA, or the "Iran deal"**), the U.S. would re-enter it too.
- The Trump administration had pulled out of the deal in 2018.

About the Joint Comprehensive Plan of Action

- The Iran nuclear deal (or the Joint Comprehensive Plan of Action (JCPOA) was signed between Iran and the P5, plus Germany and the EU in 2015.
- The P5 is the 5 permanent members of the UNSC (US, China, France, Russia, and the UK).]
- The deal is aimed at curbing Iran's nuclear programme.

Under the deal:

- most of Iran's enriched uranium was shipped out of the country
- a heavy water facility was rendered inoperable
- operational nuclear facilities were brought under international inspection
- In return, the deal involved the lifting of international sanctions on Iran.

Why has the US pulled out of the deal?

- Trump and opponents to the deal say it is flawed because it gives Iran access to billions of dollars but does not address Iran's support for groups the U.S. considers terrorists, like Hamas and Hezbollah.
- They note it also do not curb Iran's development of ballistic missiles and that the deal phases out by 2030.
- They say Iran has lied about its nuclear program in the past.

Topic- GS Paper II–International Relation

Source-The Hindu

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Economic and Social Matters

Tampon tax

Why in the news?

- Recently, the **United Kingdom** has **begun 2021** by abolishing the “tampon tax”.



Background

- Until **December 31**, the **UK** was a part of the **EU**, where **period products** such as **sanitary napkins** and **tampons** are classified as **non-essential**, and **member states** are required to **levy a 5 per cent tax** on them.
- The **UK** is out of the **27-member bloc** and it is **not bound by its directives**, under which **sanitary products** had been subjected to **five different VAT rates since 1973**.
- In **2015**, the **Conservative Party** government had established a ‘**Tampon Tax Fund**’ which **allocated the funds generated from VAT** on period products to **projects supporting vulnerable women and girls**.

About Tampon Tax

- It is a **5 per cent Value Added Tax (VAT)** on **women’s sanitary products**.

Countries which eliminated this type of tax

- United Kingdom** now **joins the list of countries** which have already **eliminated this tax**, which includes **India, Australia, and Canada**.
- It is **part of a wider UK government effort** called ‘**End Period Poverty**’.
- Scotland**, which is a **part of the UK**, made **history in November 2020** by **becoming the first country** in the world to make **period products free of cost** to those who need them.

Significance of removal of Tampon Tax

- The **British government** has estimated that the **move to abolish the tampon tax** would **save the average woman** about **40 pounds** during her lifetime.
- The **repealing of tampon taxes** removes an **unequal tax burden** and could **make menstrual hygiene products** more **accessible for low-income consumers**.

Topic- GS Paper II- Social issue and Health, Source- Indian Express

Faceless tax scheme

Why in the news?

- The **Central Government** has recently introduced the **Faceless Assessment Scheme** to provide **greater transparency, efficiency, and accountability** in **Income Tax assessments**.

Background

- **In the Union Budget 2019**, the **Finance Minister** proposed the introduction of a **scheme of faceless e-assessment**.
- The scheme seeks to **eliminate the human interface** between the **taxpayer and the income tax department**.
- The scheme lays down the **procedure to carry out a faceless assessment** through **electronic mode**.
- **From 13 August 2020**, the e-assessment **scheme of 2019** stands amended and hence known as the **Faceless Assessment scheme**.

About the Faceless tax scheme

- The faceless assessment scheme **applied only to scrutiny assessment and best judgment assessment**.

Objective

- The **main objective of the scheme** is to **remove physical interaction** as much as possible, and hence, the **taxpayers may not have the opportunity** to explain (in person) **business-related complexities** and explain various positions they have taken **while filing their income-tax returns**.
- The **scheme allows for appropriate cases** where a certain hearing is necessary, so then after **following protocols**, a hearing is given.

All provisions introduced under Faceless Assessment, under the Income Tax Act, 1961, are introduced to-

- a. Eliminate the interface between the Assessing Officer and the assessee during the course of proceedings, to the extent that is technologically feasible;
 - b. Optimise the utilisation of resources through the economies of scale and functional specialisation; and
 - c. introduce a team-based determination of arm's length price with dynamic jurisdiction
- However, as **per the Taxation and Other Laws (Relaxation and Amendment of Certain Provisions) Bill, 2020**, Faceless Assessment will now bring other provisions of **the Income Tax Act, 1961** under its purview.

Note:

- The **Central Board of Direct Taxes (CBDT)** decides the scope of the **faceless assessment such as territorial area, persons, class of persons, incomes, class of incomes, cases, or class of cases** to whom this faceless assessment is applicable.

Topic- GS Paper III–Economics

Source-The Hindu

Sagarmala Seaplane Services (SSPS)

Why in the news?

- Recently, the **Ministry of Ports, Shipping and Waterways** is kicking off its ambitious **Project of Sagarmala Seaplane Services (SSPS)**.

About Sagarmala Seaplane Services (SSPS)

- The project **aims at initiating the process of commencing operations** of the **Seaplane services**, on the select routes, under a **Special Purpose Vehicle (SPV) framework** through prospective airline operators.
- The **project execution and implementation** would be through **Sagarmala Development Company Ltd (SDCL)** which is under the **administrative control of the Ministry of Shipping**.

The proposed **Origin-Destination pairs under Hub and Spoke model** include:

- Islands of Andaman & Nicobar and Lakshadweep,
- Guwahati Riverfront & Umranso Reservoir in Assam,
- Yamuna Riverfront / Delhi (as Hub) to Ayodhya, Tehri, Srinagar (Uttarakhand), Chandigarh and many other tourist places of Punjab & Himachal Pradesh
- Mumbai (as Hub) to Shirdi, Lonavala, Ganpatipule
- Surat (as Hub) to Dwarka, Mandvi & Kandla, Khindsi Dam, Nagpur & Erai Dam and Chandrapur (in Maharashtra)



Special Purpose Vehicle (SPV)

- The **joint development and operation** of “**Sagarmala Seaplane Services (SSPS)**” will be undertaken by forming a **Special Purpose Vehicle (SPV)** with **Sagarmala Development Company Limited (SDCL)**.

Significance

- **Seaplane Service** will provide air connectivity to various remote religious/tourist places.
- It will save travel time and stimulate localized short distance travelling especially in the hilly regions or across the rivers/lakes as well as boost tourism and business activities.
- It will generate employment opportunities and stimulate tourism in these new locations, which will consequently contribute to the country's GDP in the long run.

Topic- GS Paper III–Infrastructure

Source-Indian Express

Global and India output set to expand in 2021-2022, says World Bank

Why in the news?

- According to the World Bank's Global Economic Prospects (GEP) report, the Global economic output is projected to grow by 4% in 2021 assuming widespread roll-out of a COVID-19 vaccine throughout the year.



Key Highlights of the Report

South Asia slowdown led by India

- The South Asian region's economy is expected to contract by 6.7 % in 2020 due to the pandemic.
- This was led by India's deep recession, where the economy was already weakened by the stress in non-bank financial corporations.
- India is expected to grow at 5.4% in fiscal year 2021/22 and 5.2% in fiscal 2022/23 after an expected contraction of 9.6% in fiscal 2020/21.

Reason behind India's Contraction

- India's expected contraction in the current fiscal year is due to a sharp decline in household spending and private investment.

Income loss

- There was severe income loss in the informal sector which accounts for 4/5ths of employment.

Five Agencies – One Group



‘Dramatic’ inequality

- The **inequality of the downturn** and the **likely recovery is dramatic**.
- Those with the **lowest incomes were worst hit** by the **downturn and would likely take the longest** to regain jobs, healthcare, vaccines and so forth in the post-COVID-19 economy.
- Those **with job security**, in contrast, and those at the top at the income scale were **direct beneficiaries of substantial government and central bank support for their assets**.

‘Massive’ increases in global debt levels

- There has been a **“massive increase”** in **global debt levels** because of the pandemic with **Emerging market & developing economies (EMDE) government debt** expected to increase by **9 percentage points of GDP in 2020**.
- The **South Asian region** saw the steepest increase, with **India’s government debt expected to increase by 17 percentage points of GDP** while service output contracts over 9%.

Related Information

Other Report Published by World bank

- Ease of Doing Business
- World Development Report
- Multidimensional Poverty Index
- Human capital Index
- Universal Health Coverage Report
- Logistic performance Index
- Global Economic Prospects

Topic- GS Paper III–Economics

Source-The Hindu

Indian Railways Freight Business Development Portal launched

Why in the news?

- The **Ministry of Railways** has launched **Freight Business Development Portal**.



About Freight Business Development Portal

- It is an **exclusive portal to promote and develop** the railways freight business.

Key Features

- Freight portal will ensure that all operations** stay customer centric, reduce the costs for logistics providers, provide online tracking facility for suppliers and simplify the process of goods transportation.
- It has been **designed to replace physical processes** with online ones to minimize the **need of human-to-human interaction**.

Benefits to the Customers

- The **Portal** has been **specially designed and developed** keeping in mind the varied **needs of all existing as well as new customers** with focus on **ease of doing business**, to **bring more transparency** and to **provide professional support**.

A step towards PM's digital India mission

- This **new portal is great step** in line with PM's digital India mission and would not only **greatly improve the ease of freight operations** but would also enable reduce the costs as well.

Topic- GS Paper III – Economics

Source- The Hindu

Government expects GDP to contract 7.7% in FY21

Why in the news?

- The **Ministry of Statistics and Programme Implementation** has released the **First Advance Estimates (FAE)** for the **current financial year 2020-21**.



What are the First Advance Estimates (FAE)?

- For any financial year, the Ministry of Statistics and Programme Implementation provides regular estimates of GDP.
- The first such instance is through the First Advance Estimates.
- The First Advance Estimates for any particular financial year is typically presented on January 7th.

Significance

- Its significance lies in the fact that they are the GDP estimates that the Union Finance Ministry uses to decide the next Financial Year's Budget allocations.
- It is in line with the Reserve Bank of India (RBI) estimate, which has revised its growth projection for the country's real gross domestic product (GDP) for 2020-21 to -7.5 per cent, from its earlier forecast of -9.5 per cent.

Method used

- The FAE is based on the benchmark-indicator method.
- The sector-wise estimates are obtained by extrapolation of indicators like:
- Index of Industrial Production (IIP) of the first seven months of the financial year.
- Financial performance of listed companies in the private corporate sector available up to quarter ending September 2020.
- The First Advance Estimates of crop production,
- The accounts of central & state governments,
- Information on indicators like deposits & credits, passenger and freight earnings of Railways, passengers and cargo handled by civil aviation, cargo handled at major seaports, sales of commercial vehicles, etc., available for first eight months of the financial year.

Key Highlights of the First Advance Estimates

GDP Growth Rate

- India's real GDP (Gross Domestic Product) is estimated to contract by 7.7% in 2020-21, compared to a growth rate of 4.2% in 2019-20.
- India will witness negative GDP (gross domestic product) growth rate for the first time after 1979-80 due to the Covid-19 pandemic.

Gross Value Added (GVA)

- It provides a picture of the economy from the supply side. It maps the value-added by different sectors of the economy, such as agriculture, industry, and services. The real GVA will also shrink by 7.2%.

Positive Growth

- This year just two sectors are estimated to record growth in GVA.
- Agriculture is continuing its strong run through the first half of the year to the second half (3.4%) and Electricity, Gas, Water Supply & Other Utility services (2.7%).
- However, the sharpest decline in the pandemic-dented year is expected to be in the Services Sector.

Private Final Consumption Expenditure (PFCE)

- The biggest demand for goods and services comes from private individuals trying to satisfy their consumption needs.
- This demand is called PFCE, and it constitutes over 56% of the total GDP. It is expected to be almost what it was in 2017-18.

Gross Fixed Capital Formation (GFCF)

- The second biggest component of GDP is called GFCF, and it measures all the expenditures on goods and services that businesses and firms make as they invest in their productive capacity.
- This type of demand accounts for close to 28% of India's GDP, which has been fallen below the 2016-17 level.

Government expenditure

- It is expected to show robust growth of 17% in the second half of the year, despite the challenges faced by the government on fiscal consolidation and the fact that government expenditure fell 3.9% in the first half of the year.

Topic- GS Paper III–Economics

Source- The Hindu Business Line

NCAVES India Forum-2021

Why in the news?

- Recently, Natural Capital Accounting and Valuation of the Ecosystem Services (NCAVES) India Forum-2021 is being organised by the Ministry of Statistics and Programme Implementation (MoSPI).

About the NCAVES India Forum

- It is being organised by the Ministry of Statistics and Programme Implementation.

Objectives

The objectives of the National Forum would be:

- To present India's achievements in the domain of Natural Capital Accounting (NCA).
- To prioritise the emerging opportunities for NCA in India
- To familiarise stakeholders with the work undertaken by the different international agencies in the area of NCA and
- To provide a platform to selected Research Institutions to present their research conducted in the valuation of ecosystem services.



Related Information

About NCAVES Project

- The project has been **launched by the European Union, United Nations Statistics Division (UNSD), the United Nations Environment Programme (UNEP) and the Secretariat of the Convention of Biological Diversity (CBD).**
- **India is one of the five countries** taking part in this project - the other countries being **Brazil, China, South Africa, and Mexico.**

Funding and Duration

- **The project is funded by the European Union (EU) and will have duration until the end of 2021.**

Implementation of Project in India

- **In India, the NCAVES project is being implemented by the MoSPI in close collaboration with the Ministry of Environment, Forest, and Climate Change (MoEF&CC) and the National Remote Sensing Centre (NRSC).**

Significance of NCAVES Project for India

EnviStats India

- **The participation in the project has helped MOSPI commence the compilation of the Environment Accounts as per the UN-SEEA framework and release environmental accounts in its publication “EnviStats India” on an annual basis since 2018.**

India-EVL Tool

- **NCAVES project has also helped in the development of the India-EVL Tool which is essentially a look-up tool giving a snapshot of the values of various ecosystem services in the different states of the country, based on about 80 studies conducted across the country.**
- **An additional benefit of this tool is that it provides a critical view of the literature that is available and the applicability of estimates spatially across India according to bio-geographical areas.**

Topic- GS Paper III–Economics

Source- The Hindu

Spectrum auctions

Why in the news?

- Recently, **Department of Telecommunications (DoT)** has announced that the **auctions for 4G spectrums** in the **700, 800, 900, 1,800, 2,100, 2,300, and 2,500 MHz bands** will begin from **March 1, 2021.**

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What are spectrum auctions?

- **Devices** such as **cell phones** and **wireline telephones** require signals to connect from **one end to another**.
- These **signals** are **carried on airwaves**, which must be **sent at designated frequencies** to avoid **any kind of interference**.
- The **Union government** owns all the **publicly available assets** within the **geographical boundaries of the country**, which also include airwaves.
- With the **expansion in the number of cell phone, wireline telephone and internet users**, the **need to provide more space for the signals arise** from time to time.
- To **sell these assets to companies willing to set up the required infrastructure to transport these waves from one end to another**, the **central government through the DoT auctions these airwaves from time to time**.
- These **airwaves** are called a **spectrum**, which is **subdivided into bands** which have **varying frequencies**. All these **airwaves** are sold for a certain period of time, **after which their validity lapses**, which is **generally set at 20 years**.

Why is spectrum being auctioned now?

- The **last spectrum auctions** were held in **2016** when the **government offered 2,354.55 MHz**.
- Although the **government managed to sell only 965 MHz** – or about **40 per cent** of the **spectrum** that was put up for sale.
- The need for a **new spectrum auction** has **arisen because the validity of the airwaves** bought by **companies is set to expire in 2021**.

Who is likely to bid for the spectrum?

- All **three private telecom players, Reliance Jio Infocomm, Bharti Airtel, and Vi** are **eligible contenders** to buy additional spectrum to **support the number of users** on their network.
- Apart from these **three, new companies, including foreign companies**, are **also eligible to bid for the airwaves**.
- **Foreign companies**, however, will have to **either set up a branch in India and register as an Indian company or tie-up with an Indian company** to be **able to retain the airwaves** after winning them.

Topic- GS Paper III– Infrastructure
Source- The Hindu

K-shaped economic recovery

Why in the news?

- Recently, **Chief India Economist at JP Morgan**, states the **prospects of a K-shaped recovery** from COVID are **increasing both in India and across the world**.

What is a K-shaped recovery?

- A K-shaped recovery happens when **different sections of an economy recover at starkly different rates**.
- Households at the top of the pyramid** are likely to have seen **their incomes largely protected**, and **savings rates forced up during the lockdown**, increasing **‘fuel in the tank’ to drive future consumption**.
- Meanwhile, **households at the bottom** are likely to have **witnessed permanent hits to jobs and incomes**.

Macro implications of a K-shaped recovery

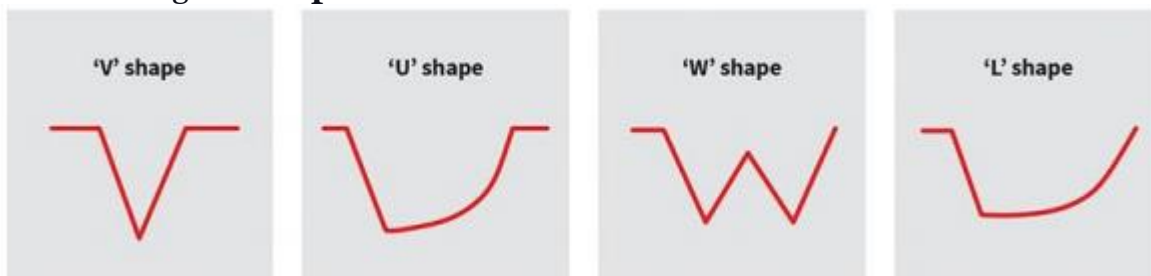
- With the **top 10 per cent of India’s households responsible for 25-30 per cent of total consumption**, one could argue consumption would get a boost as this **pent-up demand expresses itself**.
- Upper-income households** have benefitted from **higher savings for two quarters**.

Why is it important for India?

- The **Indian economy was slowing down even before Covid hit**, and the **trouble has now been amplified manifold** because of the lockdowns.
- A **Z- or at least V-shaped recovery** would be the most preferable.
- If not, we should **at least have a U-shaped recovery** or a **Swoosh to get back on our feet** in a couple of years.
- The **different types of shape of the economic recovery** are U, V, W, Z, L, J, Swoosh and Inverted square.

Z-shaped recovery

- It is the **most optimistic scenario** in which the **economy quickly rises like a phoenix after a crash**.
- It more than **makes up for lost ground** (think revenge-buying after the lockdowns are lifted) before **settling back to the normal trend-line**, thus forming a **Z-shaped chart**.



V-shaped recovery

- In V-Shaped recovery, the **economy quickly recoups** lost ground and gets back to the **normal growth trend-line**.

U-shaped recovery

- It **resembles a bathtub**, in which the **economy, after falling, struggles and muddles** around a **low growth rate for some time**, before rising gradually to usual levels.

W-shaped recovery

- It is a **dangerous creature** — **growth falls and rises**, but falls again before **recovering yet again**, thus forming a W-like chart.
- The **double-dip depicted by a W-shaped recovery** is what some economists are predicting if the **second wave of Covid comes along and the initial rebound flatters to deceive**.

L-shaped recovery

- It is the **worst-case scenario**, in which **growth after falling**, stagnates at low **levels and does not recover** for a long, long time.

Swoosh shaped recovery

- It is similar to the **Nike logo** — in between the **V-shape and the U-shape**. Here, **after falling, growth starts recovering quickly** but then, slowed down by **obstacles, moves gradually** back to the **trend-line**.

J-shaped recovery

- In this, the **growth rises sharply** from the **lows much higher** than the **trend-line and stays there**.

Inverted square root shaped recovery

- In this scenario, while **there could be a rebound from the bottom**, the **growth slows and settles a step-down**.

Topic- GS Paper III–Economics

Source- Indian Express

RBI panel to examine digital lending risks

Why in the news?

- The Reserve Bank of India (RBI) has constituted a working group on digital lending — including online platforms and mobile apps — to study all aspects of digital lending activities in the regulated financial sector as well as by unregulated players.

About RBI working group

- The working group consists of both internal and external members and is chaired by Jayant Kumar Dash, Executive Director, Reserve Bank of India.

Functions of the working group

- They will evaluate digital lending activities and assess the penetration and standards of outsourced digital lending activities in RBI regulated entities
- To identify the risks posed by unregulated digital lending to financial stability, regulated entities, and consumers; and
- To suggest regulatory changes to promote orderly growth of digital lending.
- It will also recommend measures for expansion of specific regulatory or statutory perimeter and suggest the role of various regulatory and government agencies.
- It will also recommend a robust fair practices code for digital lending players.
- **The group will submit its report within three months.**

Topic- GS Paper III–Economics
Source- Indian Express

ILO calls for national-level policy for ‘Work From Home’

Why in news?

- In its new report, the **International Labour Organisation (ILO)** cited **the need to develop effective policies for home-based workers** and ensure their **proper implementation even as the practice** had increased since the novel coronavirus disease (COVID-19) pandemic.

Highlights of the report

The report talked about three main types of home-based workers:

- **Industrial home-based workers**, who are involved in the production of goods including artisanal production, such as making of handicrafts, rolling of beedis, making of laces etc.
- **Teleworkers**, who use information and communication technologies to perform their work remotely
- **Home based digital platform workers**, who are ‘crowdworkers’ that perform service-sector tasks as specified by employers or intermediaries.
- The report called for **better compliance, legal protection, occupational safety, and social security** for industrial home-based workers.

What is the need of such policy?

- Those working from home, especially in **low-income countries**, continued to work in poor working conditions. Despite contributing to the economy, **home-based working** had remained “invisible”.

ILO Recommendations

- Governments need to play a **major role to protect home-workers**.
- Develop and **implement a gender-responsive legal and policy framework that provided equal treatment** for all categories of home-based **workers in relation to other wage earners**. This included facilitating the transition of informal workers to formal employment.
- **ILO** also said that **teleworkers are at the risk of working overtime** and hence recommended the ‘**right to disconnect**’ on their behalf.

Note: 10 countries had ratified the ‘**Convention on Homework**’ nearly 25 years since it was adopted by the **International Labour Conference, June 20 1996**.

- These are **Albania, Argentina, Belgium Bosnia and Herzegovina, Bulgaria, Finland, Ireland, Netherlands, North Macedonia and Tajikistan**.

Topic: GS Paper I+III – Social Issues, Economy
Source: Down to Earth

Balance sheet of a bad bank

Why in the news?

- Recently, the **Governor of Reserve Bank of India (RBI)** has indicated that the **central bank can consider a bad bank's idea to tackle non-performing assets (NPAs)**.

Background

- In its recent **Financial Stability Report**, the **RBI** noted that the **gross NPAs of the banking sector** is expected to shoot up to **13.5% of advances by September 2021**, from **7.5% in September 2020**. The governor has said that the **banks and non-bank financial companies (NBFCs)** need to **identify risks early, monitor them closely and manage them effectively**.
- The **RBI Governor** noted that the current **Covid-19 pandemic-related shock** would place **more significant pressure on banks' balance sheets in terms of NPAs**, leading to **erosion of capital**.

About Bad Bank

- A **bad bank** is a bank set up to buy the **bad loans and other illiquid holdings of another financial institution**.
- The **entity holding significant non-performing assets** will sell these **holdings to the bad bank** at market price.
- By **transferring such assets to the bad bank**, the **original institution may clear its balance sheet**—although it will still be **forced to take write-downs**.
- A **bad bank structure** may also **assume the risky assets of a group of financial institutions**, instead of a **single bank**.

Topic- GS Paper III–Economics

Source- Indian Express

Off-budget borrowings

Why in the news?

- The Finance Minister is all set to present the **Union Budget 2021 on February 1st**, with all eyeing on **off-budget borrowings** to reduce **Fiscal Deficit**.



What are off-budget borrowings?

- Off-budget borrowings are loans taken not by the Centre directly, but by another public institution that borrows on the central government's directions.
- Such borrowings are used to fulfil the government's expenditure needs.

Not included in fiscal deficit

- Since the loan's liability is not formally on the Centre, the loan is not included in the national fiscal deficit.
- This helps keep the **country's fiscal deficit within acceptable limits**.

What will be the fiscal deficit if we include off-budget borrowings?

- Due to various sources of off-budget borrowing, the true fiscal deficit is difficult to calculate. However, in July 2019, the CAG had pegged the actual fiscal deficit for 2017-18 at 5.85% of GDP instead of the government version of 3.46%.

How are off-budget borrowings raised?

- The government can ask an implementing agency to raise the market's required funds through loans or by issuing bonds.
- For example, food subsidy is one of the major expenditures of the Centre.
- **In the Budget presentation for 2020-21**, the government paid only half the amount budgeted for the food subsidy bill to the Food Corporation of India.
- The shortfall was met through a loan from the **National Small Savings Fund**.
- This allowed the Centre to halve its food subsidy bill from Rs 1, 51,000 crores to Rs 77,892 crore in 2020-21.

Other public sector undertakings have also borrowed for the government.

- For instance, public sector oil marketing companies were asked to pay for subsidised gas cylinders for Pradhan Mantri Ujjwala Yojana beneficiaries in the past.

Public sector banks are also used to fund off-budget expenses.

- For example, loans from PSU banks were used to make up for the shortfall in the release of fertiliser subsidy.

Different opinion on off budget expenditure

CAG on off budget expenditure

- Recently, **Comptroller and Auditor General Report of 2019** points out, this route of financing puts major sources of funds outside the control of Parliament.
- "Such off-budget financing is not part of the calculation of the fiscal indicators despite fiscal implications.

Fifteenth Finance Commission on Extra budgetary resources

- In its initial report, the Fifteenth Finance Commission advised both the centre and the states to eliminate extra budget borrowings.
- The Commission noted that the Union and State Governments' increasing tendency to borrow outside the Consolidated Fund, leading to accumulation of extra-budgetary liabilities.
- Hence, the Commission recommended that both the Union and the States have to make full disclosure of extra-budgetary borrowings in the interest of transparency.
- Outstanding extra-budgetary liabilities need to be identified and eliminated in a time-bound manner as per the amended FRBM Act of 2018.

Topic- GS Paper III–Economics

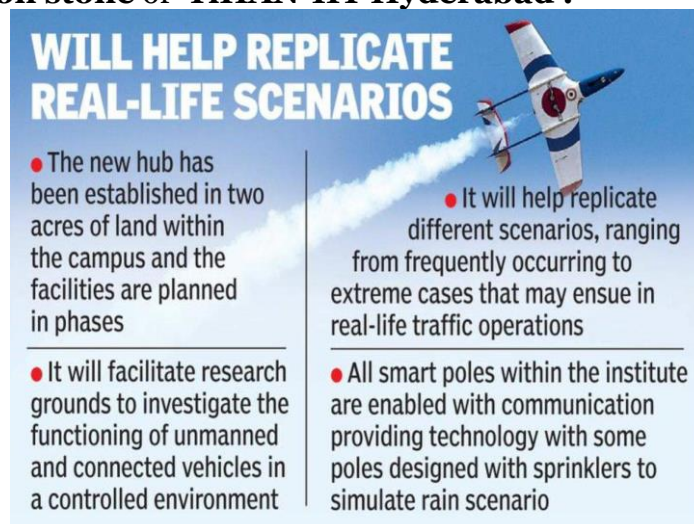
Source-The Hindu

Science and Technology

‘TiHAN-IIT’ testbed for autonomous navigation systems

Why in the news?

- **Union Minister of Education** has recently **virtually laid the foundation stone** of ‘**TiHAN-IIT Hyderabad**’.



About TiHAN-IIT

- It is **India’s first Technology Innovation Hub for Autonomous Navigation Systems and Data Acquisition Systems** setup by **IIT Hyderabad**.
- This hub focuses on addressing various challenges hindering the real-time adoption of unmanned autonomous vehicles for both **terrestrial and aerial applications**, he added.”

Funded by

- It was **sanctioned and funded by the Department of Science and Technology (DST)** under the **National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS)**.

Focused Sectors

- The hub’s focus sectors include **Intelligent, Autonomous Transportation and Systems, Agriculture, Surveillance, and Environmental & Infrastructure Monitoring**.

Benefits

- The **developed test bed** will be **available for use by all the industries, R&D labs, academia** conducting **research and development in the broad areas of autonomous navigation**.
- It also **provides a great step** towards ‘**AtmaNibhar Bharat**’, ‘**Skill India**’ and ‘**Digital India**’.

Related Information

- In **March 2020**, **Department of Science and Technology (DST)** has decided to establish a **Technology Innovation Hub (TIH)** at **IIT Mandi** under the **National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS)**.

About Technology Innovation Hub

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- It aims to **focus on human-computer interaction (HCI) research** where projects will **focus on design and development of computer technology (interfaces)** and the **study of interaction between humans (users) and computers.**

About Cyber Physical Systems (CPS)

- These are a **new class of engineered systems that integrate computation and physical processes** in a dynamic environment.
- It **encompasses technology areas of Cybernetics, Internet of Things (IoT), Big Data, Artificial Intelligence (AI)** among others.
- The potential applications are a) **Driverless cars that communicate securely with each other on smart roads** b) **Sensors in the home to detect changing health conditions**, among others.

About National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS)

- It was **launched in 2018** by the **Department of Science & Technology** for a period of five years.

Objective

- To create a **seamless ecosystem for CPS** by **coordinating and integrating nationwide efforts** encompassing **knowledge generation, human resource development, research, technology, innovation, and commercialization.**

Features of the mission

- Under this, **Technology Innovation Hubs (TIH), Application Innovation Hubs (AIH) and Technology Translation Research Parks (TTRP)** will be established.
- These hubs will connect to **Academics, Industry, Central Ministries and State Government** in developing solutions at **reputed academic, R&D and other organizations** across the country in a hub and spoke model.

Topic- GS Paper III - Science and Technology

Source- Indian Express

National Medicinal Plants Board launches consortia for medicinal plants

Why in the news?

- The **Ministry of AYUSH** has **launched consortia for medicinal plants**, envisaging the **necessity of connectivity between stakeholders** in the **supply chain and value chain of medicinal plants.**



About consortia for medicinal plants

- It will **address/deliberate (not limited to) on quality planting material, R&D, cultivation, trade of medicinal plants/market linkage** etc.

Seed to Shelf approach

- It also helps to **establish linkage between the farmers and manufacturers**, a **‘Seed to Shelf’** approach is being introduced, wherein, aspects related to **Quality Planting Materials (QPM), Good Agriculture Practices (GAPs), Good Post Harvest Practices (GPHPs)** would be addressed.

In the first phase, NMPB consortia is proposed for medicinal plant species like

- Aonla (*Phyllanthus emblica*)
- Guggulu (*Commiphora wightii*)
- Ashwagandha (*Withania somnifera*)
- Pippali (*Piper longum*)
- Satavari (*Asparagus racemosus*)

Related Information

About National Medicinal Plants Board

- It was **established in 2000** under the **Ministry of AYUSH** (Ayurveda, Yoga & Naturopathy, Unani, Siddha & Homoeopathy).

Objective

- Its **main objective is the development of the medicinal plants** sector through **developing a strong coordination** between various ministries/ departments/ organizations for **implementation of policies / programs** on medicinal plants.

Topic- GS Paper III - Science and Technology

Source- Indian Express

CSIR develops Banana grit

Why in the news?

- Recently, **CSIR-National Institute for Interdisciplinary Science and Technology (NIIST) in Kerala** has come up with a **new product called banana grit or granules**.

About the Banana Grit

- It has been **developed from raw Nendran bananas** which **resembles as ‘rava’ and broken wheat**.



Purpose

- The **product has been labelled** as an **ideal ingredient for a healthy diet** as it **utilises the presence of resistant starch in bananas** which is reported to **improve gut health**.
- The concept was **introduced to utilise the presence of resistant starch in bananas**, which is **reported to improve gut health**.

Significance

- It will be **helpful for the farmer** who has often been **struggling against falling prices of banana**.

Topic- GS Paper II – Health + Science and Technology

Source- The Hindu

Swasth Vayu

Why in the news?

- Recently, **CSIR-NAL** scientists along with **medical professionals from CSIR-IGIB** came forward to **address the shortages of ventilators** in the beginning of the Covid-19 pandemic and **indigenously designed and developed** the **non-invasive bilevel positive airway pressure ventilator** known as **SwasthVayu**.



About Swasth Vayu

- SwasthVayu may be used on **Covid-19 patients** who require **oxygen supplementation up to 35%**.

Features

- SwasthVayu is a **microcontroller based precise closed-loop adaptive control system** with a **built-in biocompatible “3D printed manifold and coupler”** with HEPA filter (Highly Efficient Particulate Air Filter).
- These **unique features** help to alleviate the **fear of the virus spread**.
- It also has features like **CPAP, Bi-Timed, Spontaneous / AUTO modes** with provision to **connect Oxygen concentrator or Enrichment unit externally**.

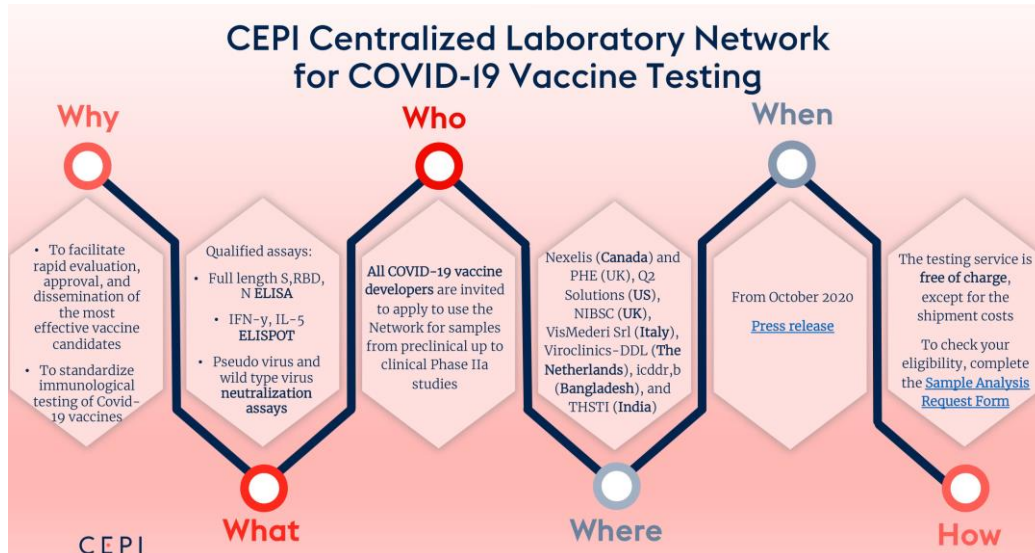
Topic- GS Paper III–Science and Technology

Source-PIB

CEPI Centralized Network Lab

Why in the news?

- Union Minister for Science & Technology inaugurated one of the seven labs of the world called as the centralized network lab of Coalition for Epidemic Preparedness Innovations (CEPI) established at Translational Health Science & Technology Institute (THSTI), Faridabad.



About CEPI Centralized Network Lab

- The CEPI centralized laboratory at DBT-THSTI Faridabad is first of its kind in India and one of the seven in the world.
- This is the only laboratory of such kind in India and is also accredited by National Accreditation Board for Testing and Calibration Laboratories (NABL) (ISO 17025:2017).

About Coalition for Epidemic Preparedness Innovations (CEPI)

- CEPI is an innovative partnership between public, private, philanthropic, and civil organizations, launched at Davos in 2017, to develop vaccines to stop future epidemics.
- The Department of Biotechnology, Ministry of Science & Technology, Government of India is implementing the Ind-CEPI mission.
- The Ind-CEPI mission titled 'India Centric Epidemic Preparedness through Rapid Vaccine Development: Supporting Indian Vaccine Development Aligned with the Global Initiative of the Coalition for Epidemic Preparedness Innovations (CEPI)'.
- Ind-CEPI Mission aims to strengthen the development of vaccines for the diseases of epidemic potential in India as well as build coordinated preparedness in the Indian public health system and vaccine industry to address existing and emergent infectious threats in India.

Topic- GS Paper III–Science and Technology

Source-PIB

Mealworms

Why in the news?

- European Food Safety Agency (EFSA) has recently approved the Mealworms into Europe's pasta bowls and dinner dishes, after becoming the **first insect approved in the region as a human food**.

About the Recent Decision

- The EU agency assessed it under a "**novel food**" regulation that came into effect in 2018.
- The decision by the European Food Safety Agency (EFSA) paves the way for the yellow grubs to be used whole and dried in curries and other recipes and as a flour to make biscuits, pasta and bread.
- These are rich in protein, fat and fibre.

About Mealworms



- These are the larval form of the mealworm beetle, **Tenebrio molitor**, a species of darkling beetle.
- These are holometabolic insects.

Note:

- **Holometabolism**, also called complete metamorphosis, is a form of insect development which includes four life stages: **egg, larva, pupa and imago or adult**.

Topic- GS Paper III–Environment

Source- Indian Express

5G technology in India

Why in the news?

- Recently, the **Department of Telecommunications (DoT)** has **sought inputs from telcos and other industry experts** on the **sale and use of radiofrequency spectrum** over the **next ten years**, including the **5G bands**.



What is 5G technology?

- It is the **latest upgrade** in the **long-term evolution (LTE)** mobile **broadband networks**.
- It mainly works in **3 bands**, namely **low, mid, and high-frequency spectrum** — all of which have their **uses and limitations**.

Low band frequency Spectrum

- The **low band spectrum** has shown **great promise** in terms of **coverage** and **internet speed** and **data exchange speed**.
- The **maximum speed** is limited to **100 Mbps (Megabits per second)**.

Mid-band spectrum

- The **mid-band spectrum** has **higher speeds** than the **low band** but has **limitations** in terms of **coverage area** and **signals penetration**.
- **Industries and specialised factory units** may use this band to **build captive networks** that can be **moulded into that industry's needs**.

High-band spectrum

- The **high-band spectrum** offers the **highest speed** of all the **three bands** but has **minimal coverage** and **signal penetration strength**.
- The **maximum speed** has been tested to be as high as **20 Gbps (gigabits per second)** whereas in the **4G** the **maximum internet data speed** has been recorded at **1 Gbps**.

Where does India stand in the 5G technology race?

- In **2018**, **India** had **planned** to start **5G services** as soon as possible, **intending to capitalise** on the **better network speeds** and **strength** that the **technology promised**.
- All the **three private telecom players**, **Reliance Jio Infocomm**, **Bharti Airtel** and **Vi**, have been **urging the DoT** to lay out a **clear road map of spectrum allocation** and **5G frequency bands** be able to plan the **rollout of their services accordingly**.
- On the other hand, **Reliance Jio** plans to **launch an indigenously built 5G network** for the country as early as the **second half of this year**.

What is the global progress on 5G?

- The **global telecom companies** have **started building 5G networks** and **rolling it out to their customers** on a **trial basis**.
- In **countries like the US**, companies such as **AT&T**, **T-mobile**, and **Verizon** have taken the lead when it comes to **rolling out commercial 5G** for their users.

- **South Korean company Samsung**, which had **started researching on 5G technology ways back in 2011**, has on the other hand, take the lead when it comes to **building the hardware for 5G networks for several companies**.

Topic- GS Paper III–Science and Technology

Source- Indian Express

Rakshita

Why in the news?

- **Institute of Nuclear Medicine and Allied Sciences (INMAS)**, Delhi based **DRDO laboratory**, handed over '**Rakshita**' to **Central Reserve Police Force (CRPF)** recently.



About Rakshita

- It is a **bike-based, casualty transport emergency vehicle**.
- It is fitted with a **customized reclining Casualty Evacuation Seat (CES)**, fitted in and taken out as per requirement.
- The other **significant features** are the **head immobilizer, safety harness jacket, hand and foot straps for safety, adjustable footrest, physiological parameter measuring equipment** with wireless monitoring capability and auto warning system for the driver.



Significance

- The **bike ambulance** will **help in overcoming the problems** faced by **Indian security forces** and **emergency healthcare providers**.
- It will **provide life-saving aid** for the **evacuation of injured patients** from **low-intensity conflict areas**.

- It will be **handy in the congested streets** and **remote locations**, where **access through ambulance** is difficult and **time-consuming**.
- The **bike can respond to a medical emergency need** of patients faster than a **four-wheeler** due to its **functionality** and **integrated emergency medical support system**.
- This **bike ambulance** is **useful** not only for the **paramilitary and military forces** but also for **potential civil applications**.

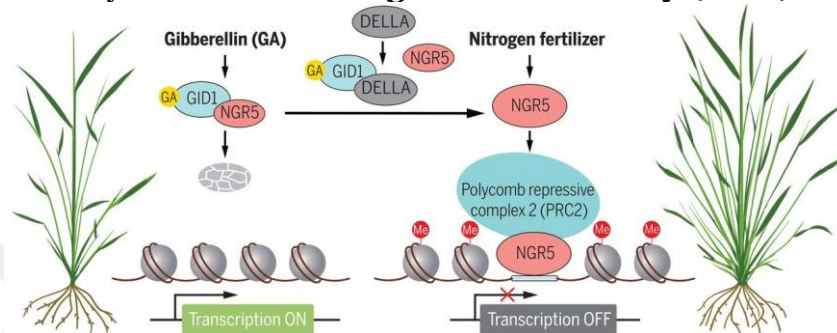
Topic- GS Paper III– Science & Tech + Defence

Source- PIB

Scientists find a way to improve nitrogen use efficiency in paddy

Why in the news?

- Recently, Indian biotechnologists have found a way to carry out crop improvement that would help reduce the wastage of nitrogenous (N) fertilizers worth billions of rupees.
- This efficiency is known as **nitrogen-use efficiency (NUE)**.



About nitrogen-use efficiency (NUE)

- It is the fraction of applied nitrogen that is absorbed and used by the plant.
- NUE for cereal production (wheat, rice, maize, barley, sorghum, millet, oat and rye) is as low as 33%
- Cereals account for over 69 per cent of N fertilizers' total consumption in the country with rice topping the list at 37 per cent, followed by wheat (24 per cent).
- Low NUE for crops also implies higher costs to producers and consumers, higher import dependence on N fertilizers, leaching etc.

How is NUE calculated?

- NUE is calculated as a ratio between nitrogen used and harvest: A higher number denotes low wastage.

Benefits of the Nitrogen- Use efficiency

- Agriculture accounts for over 70% of all nitrous oxide emission in Indian.
- It will help farmers use nitrogenous (N) fertilizers efficiently and save costs.
- It will help in limiting nitrogen-linked pollution, which contributes to climate change,

Uses of Nitrogen in Plant

- Nitrogen (N) is often required in the greatest quantity by crops, primarily for vigour and yield.
- Nitrogen plays a key role in chlorophyll production and protein synthesis.
- Chlorophyll is the green plant pigment responsible for photosynthesis.

- When nitrogen is deficient, plants develop yellow or pale leaves, and their growth is stunted.

Note:

- According to the **Indian Nitrogen Assessment (2017)**, agriculture accounts for over 70 per cent of all nitrous oxide emission in the Indian environment, of which **fertilizers, mostly urea contribute 77 per cent.**
- **Nitrous oxide** is a **greenhouse gas (GHG)** that is **300 times more powerful than carbon dioxide.**

Topic- GS Paper III–Science and Technology
Source-Down to Earth

Covaxin effective against U.K. virus variant, says study

Why in the news?

- Recently in a new study by the **Indian Council of Medical Research (ICMR)** and **National Institute of Virology (NIV)**, found that the Covaxin can work against the new UK variant.



Key highlights

- The “plaque reduction neutralization” test (PRNT₅₀) involved collecting the serum — the protein-rich liquid separated from blood after it is clotted — of 38 people who had received the vaccine.
- The Covaxin work against both the UK new variant strain as well as heterologous SARS-CoV-2 strains.
- The median ratio of 50% neutralisation of sera was 80% for the U.K. variant and 90% for the strain circulating in India, but different from the one used for making the vaccine.

How the neutralization studies carried out?

- Firstly, the virus isolated from people is grown in the lab using cell lines.
- When viruses successfully grow in them, the pathogenic effects of the viruses are observed in the cells.
- The sera taken from vaccinated people are then added to the cell line culture system, and its ability to prevent the virus from causing pathogenic effects is observed.
- In this case, the sera taken from vaccinated people could neutralise the virus and hence prevent pathogenic effects being produced in the cell lines containing the virus.

About Covaxin

- It has been indigenously developed by the company Bharat Biotech in collaboration with the Indian Council of Medical Research (ICMR).
- It is an inactivated vaccine manufactured in the company's Bio-Safety Level 3 (BSL-3) High Containment facility located in Hyderabad (Telangana).

Topic- GS Paper III–Science and Technology

Source-The Hindu

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Security

Nagaland declared Disturbed Area under AFSPA

Why in the news?

- Recently, the **entire state of Nagaland** has been **declared a disturbed area** for **six more months** by the **Ministry of Home Affairs**.
- It **enabled the continuation of the controversial Armed Forces (Special Powers) Act** which **empowers security forces to conduct operations anywhere and arrest anyone without any prior warrant**.



About Armed Forces (Special Powers) Act

- The AFSPA gives **armed forces the power to maintain public order in “disturbed areas”**.
- The AFSPA gives **officer the authority to prohibit a gathering of five or more persons in an area**, can use **force or even open fire** after giving due warning if they **feel a person is in contravention of the law**.
- The powers assigned to officers under AFSPA are:
 - Army can also arrest a person without a warrant.
 - Enter or search a premise without a warrant; and
 - Ban the possession of firearms.
- **Any person arrested or taken into custody may be handed over to the officer in charge of the nearest police station** along with a **report detailing the circumstances** that led to the arrest.

Definition of ‘disturbed area’

- A **disturbed area** is one which is declared by notification **under Section 3 of the AFSPA**.
- An **area can be disturbed** due to **differences or disputes between members of different religious, racial, language or regional groups or castes or communities**.
- The **Central Government or the Governor of the State or administrator of the Union Territory** can **declare the whole or part of the State or Union Territory** as a disturbed area.

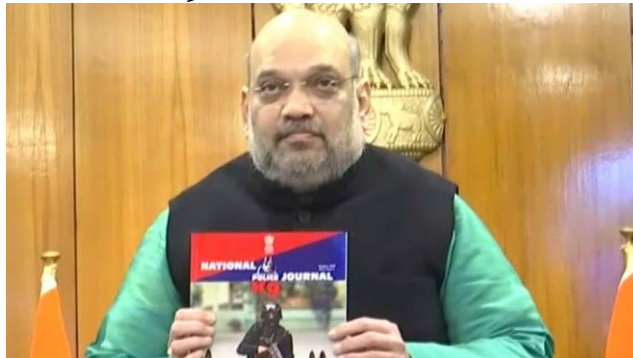
Topic- GS Paper III–Defense and Security

Source-Indian Express

National Police K-9 Journal

Why in the news?

- Recently, the **Union Home Minister** has released the **inaugural issue** of the “**National Police K-9 Journal**”.



Background

- A special ‘**Police K9 Cell**’ was **established in November 2019** under the **Police Modernization Division of the Ministry of Home Affairs** with the mandate of ‘**Mainstreaming and Augmentation of Police Service K9s in the country**’.

About National Police K-9 Journal

- It is the **first such publication in the country** on the **subject of Police Service K9s (PSKs) i.e., Police Dogs**.
- It is a **unique initiative** that **will further enrich the subjects related to Police Service Dog (K-9) (PSK) teams** in the country.
- The **police dog squad** can **act as a force multiplier** to **ensure the safety of society** similar to **drones or satellites** are being used in the country.
- The **journal comprises different sections in Hindi and English**.
- It is a **biannual journal** which will be **released in April and October** every year.

Topic- GS Paper III–Defense and Security

Source-Indian Express

Sea Vigil 2021

Why in the news?

- Recently, the **Indian Navy** is **going to coordinate** the **second edition** of the **coastal defence exercise ‘Sea Vigil’**.



About Sea Vigil Exercise

- It is a **biennial exercise** that **began in January 2019**.
- It is a **build-up towards the major Theatre-level exercise TROPEX** (Theatre-level Readiness Operational Exercise).
- It is **being organised to check the efficacy** of the measures **initiated to plug gaps in coastal security** following the **Mumbai terror attack in 2008**.

Related Information

About Theatre-level Readiness Operational Exercise (TROPEX)

- It is an **inter-service military exercise** conducted by the **Indian Navy every alternate year**.
- The **exercise is aimed at testing combat readiness** of the **combined fleets of the Indian Navy**, and the assets of the **Indian Air Force, Indian Army**, and the **Indian Coast Guard**.

<ul style="list-style-type: none">➤ Exercise being undertaken along the entire 7516.6km coastline and Exclusive Economic Zone of India	
<ul style="list-style-type: none">➤ Aims to comprehensively and holistically validate the efficacy of the measures taken for coastal defence since 26/11	
<ul style="list-style-type: none">➤ It will provide a realistic assessment of our strengths and weaknesses	
	<ul style="list-style-type: none">➤ Mock drills and simulation of terror attacks will be conducted on Wednesday

Topic- GS Paper III–Defence

Source- The Hindu

Cabinet Committee approves Tejas deal worth Rs 48,000 crore

Why in the news?

- The government has recently approved the procurement of 83 indigenously-developed **light combat aircraft Tejas for the Indian Air Force (IAF)**.



About HAL Tejas

- The HAL Tejas is an Indian single-engine, fourth-generation, multirole light fighter designed by the Aeronautical Development Agency (ADA) in

collaboration with Aircraft Research and Design Centre (ARDC) of Hindustan Aeronautics Limited (HAL) for the Indian Air Force and Indian Navy.

- It came from the Light Combat Aircraft (LCA) programme, which began in the 1980s to replace India's ageing MiG-21 fighters.
- In 2003, the LCA was officially named "Tejas".
- Tejas is the second supersonic fighter developed by Hindustan Aeronautics Limited (HAL) after the **HAL HF-24 Marut**.
- The indigenous content of LCA-Tejas is 50 percent in **Mk1A variant**.
- It is the smallest and lightest in its class of contemporary supersonic combat aircraft.

Technology used

- It integrates technologies such as **relaxed static stability, fly-by-wire flight control system, multi-mode radar, integrated digital avionics system and composite material structures**.

Topic- GS Paper III–Defence

Source- Indian Express

Russia withdraws from Open Skies Treaty after US departure

Why in the news?

- Russia has recently announced that they will withdraw from the Open Skies Treaty which will allow observation flights over military facilities following the United States' exit from the pact.

Reason for the withdrawal

- Moscow has argued that the US withdrawal will erode global security by making it more difficult for governments to interpret the intentions of other nations, particularly amid Russia-West tensions after the Russian annexation of Ukraine's Crimea in 2014.

What is the Open Skies Treaty?

- It was first proposed in 1955 by former **US President Dwight Eisenhower** as a means to deescalate tensions during the Cold War, the landmark treaty was eventually signed in 1992 between NATO members and former Warsaw Pact countries following the demise of the Soviet Union.
- It went into effect in 2002 and currently has 35 signatories along with one non-ratifying member (Kyrgyzstan).

Aims

- The Open sky treaty aims at building confidence among members through mutual openness, thus reducing the chances of accidental war.
- Under the treaty, a member state can "spy" on any part of the host nation, with the latter's consent.
- A country can undertake aerial imaging over the host state after giving notice 72 hours before, and sharing its exact flight path 24 hours before.
- The information gathered, such as on troop movements, military exercises and missile deployments, has to be shared with all member states.
- Only approved imaging equipment is permitted on the surveillance flights, and officials from the host state can also stay on board throughout the planned journey.

Significance of the Open Skies Treaty

- It is currently the preferred mode for intelligence gathering.
- It also help to reduce the reliability Washington to obtain classified satellite data, which would be more difficult to obtain compared to OST surveillance records that have to be shared with all members as a treaty obligation.

Related Information

About New START Treaty

- The new Strategic Arms Reduction Treaty (START) is a treaty between the United States of America and the Russian Federation on measures for the further reduction and limitation of strategic offensive arms.
- **It entered into force on 5th February, 2011.**
- It is a successor to the **START framework of 1991** (at the end of the Cold War) that limited both sides to 1,600 strategic delivery vehicles and 6,000 warheads.
- The USA has been worried that extending New Start would negatively impact an arms deal with China and Russia.
- It is concerned that China's nuclear stockpile could be doubled if the New Start Treaty continued as is, without including China.
- The New Start Treaty also suffered from verification inadequacies and that the U.S. intended to establish a new arms control regime which would include China.

Topic- GS Paper III–Defence +International Relation

Source- Indian Express

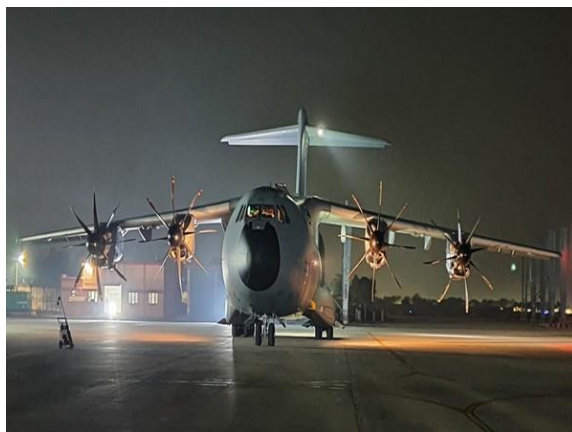
Exercise Desert Knight 21

Why in the news?

- The **Exercise Desert Knight 21** between **Indian Air Force (IAF)** and **French Air and Space Force (Armée de l'Air et de l'Espace)** will be held recently at **Jodhpur, Rajasthan.**

About Exercise Desert Knight 21.

- This Exercise has been hosted by the **Indian Air Force and the French Air and Space Force (Armée de l'Air et de l'Espace).**



What is the aim of this exercise?

- It will provide the operational exposure and help in sharing practices towards enhancing combat capability.

What is unique about this exercise?

- For the first time ever, the Indian skies will be hosting Rafale aircraft by both sides.

Defence Exercises between India and France

- Varuna – Naval exercise
- Garuda – Air exercise
- Shakti – Army exercise

Topic- GS Paper III–Defence

Source-The Hindu

Smart Anti-Airfield Weapon (SAAW)

Why in the news?

- The Defence Research and Development Organisation (DRDO) has successfully conducted captive and released the trial of indigenously developed Smart Anti-Airfield Weapon (SAAW) from Hawk-I of Hindustan Aeronautics Limited (HAL) off the Odisha coast.
- It is the first smart weapon fired from an Indian Hawk-Mk132.



About Smart Anti-Airfield Weapon (SAAW)

- It is a long-range precision-guided anti-airfield weapon developed by DRDO's Research Centre Imarat (RCI) Hyderabad.
- The weapon is designed to strike ground targets, especially adversary airfield infrastructure or similar strategically important installations.
- The weapon is capable of engaging ground enemies' airfield assets such as radars, bunkers, taxi tracks, and runways up to a range of 100 kilometres.
- Its high precision-guided bomb is lightweight as compared to weapon systems of the same class.

Other Weapons developed by RCI Hyderabad

RUDRAM

- It is India's first indigenous anti-radiation air-to-surface missile for Indian Air Force.
- The missile is integrated on SU-30 Mk1 fighter aircraft.
- It is designed to detect, track, and neutralise the adversary's radar, communication assets and other radio frequency sources which are generally part of their air defence systems.

Note:

- **This was the 9th successful mission of SAAW conducted by DRDO till now.**

Topic- GS Paper III–Defence

Source-The Hindu

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Environment

Asian Waterbird Census

Why in the news?

- Recently, the **two-day Asian Water bird Census-2020** commenced in **Andhra Pradesh** under the **aegis of experts from the Bombay Natural History Society (BNHS)**.



About Asian Waterbird Census

- It is an **integral part of the global waterbird monitoring programme**, the **International Waterbird Census (IWC)**, coordinated by **Wetlands International**.
- It runs in **parallel with other regional programmes** of the **International Waterbird Census in Africa, Europe, West Asia, the Neotropics and the Caribbean**.

Background

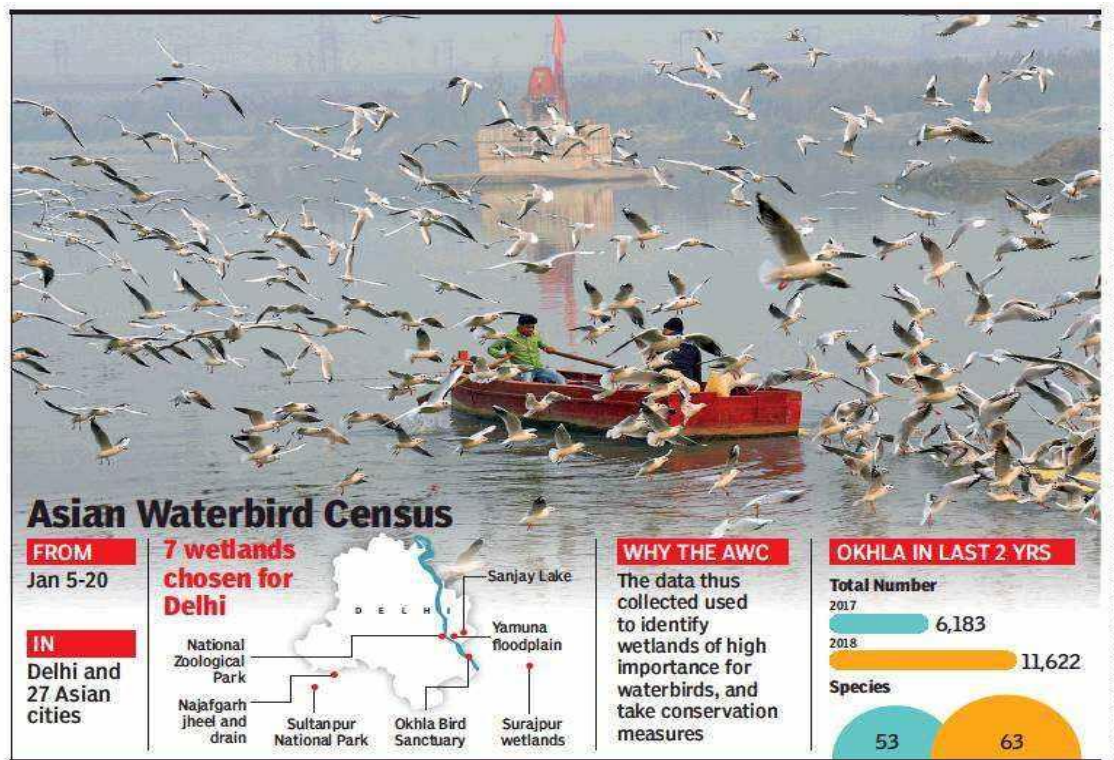
- The AWC was initiated in **1987** in the **Indian subcontinent** and since has **grown rapidly to cover major region of Asia**, from **Afghanistan eastwards to Japan, Southeast Asia, and Australasia**.
- The census thus covers the **entire East Asian – Australasian Flyway** and a large part of the **Central Asian Flyway**.
- The census has the following objectives:
 - to obtain information on an annual basis of waterbird populations at wetlands in the region during the non-breeding period of most species (January), as a basis for evaluation of sites and monitoring of populations
 - to monitor on an annual basis the status and condition of wetlands
 - to encourage greater interest in waterbirds and wetlands amongst citizens

Significance

- The **information collected** is available to a **wide range of government agencies and non-government organizations** and contributes to **conservation activities** from the **local to global level** including:
 - raising awareness of water birds and **waterbird conservation issues**
 - supporting local conservation activities at wetlands
 - the **Ramsar Convention on Wetlands**, in identifying and monitoring wetlands of international importance
 - the **Convention on Migratory Species (CMS)**, by monitoring the status of migratory waterbirds and their habitats
 - the **Convention on Biological Diversity's (CBD)** goal in conservation and sustainable use of biodiversity

- f. implementation of the **East Asian-Australasian Flyway Partnership Initiative (EAAFP)** and **Central Asian Flyway Action Plan** through monitoring important and Flyway Network sites
- g. **Bird Life International's Important Bird Area (IBA) Programme**
- h. **IUCN/Bird Life International's Global Species Programme (Red List)**
- i. **Wetlands International's Waterbird Population Estimates programme.**

India and Asian Waterbird Census



Sites Covered in India

- It is covering many sites, including **Coringa Wildlife Sanctuary**, **Kolleru Lake** and **Krishna Sanctuary**.
- In **Godavari estuary**, the **Kumbabhisekham mudflat**, the wetland opposite the **Coromandel industrial area** and other **Important Bird Areas (IBAs)** are being covered.
- In this census, the **Indian skimmer** is the **main center of concern** which would require more study to establish that the species breeds on the **Kakinada coast**, which supports a **great number of Indian Skimmer**.

About Indian Skimmer (*Rynchops albicollis*)

- It is a **water bird species**.
- In India, the species can be sighted near the **Chambal river** in **Central India**, in few parts of **Odisha** and in **Andhra Pradesh**.

Conservation Status

- These birds are listed as **Endangered** in **IUCN Red List**.

Related Information

About the Bombay Natural History Society (BNHS)

- It is a **pan-India wildlife research organization**, has been promoting the cause of nature conservation since 1883.

Mission

- Conservation of nature, primarily biological diversity** through action based on **research, education, and public awareness**.

Vision

- Premier **independent scientific organization** with a **broad-based constituency**, excelling in the **conservation of threatened species and habitats**.

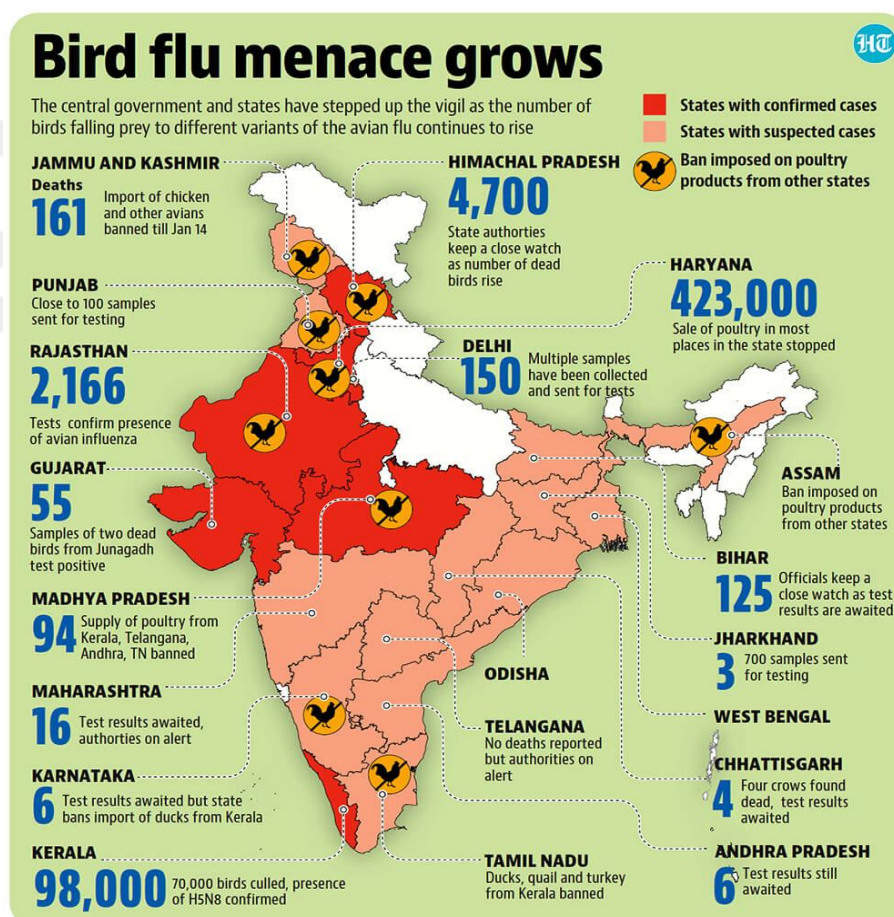
Topic- GS Paper III–Environment and Biodiversity

Source-The Hindu

Bird Flu: Delhi's Sanjay Lake declared 'alert zone'

Why in the news?

- Recently, **Delhi's Sanjay Lake** declared 'alert zone' after the **death of 10 ducks** on the premises due to **bird flu**.



Related Information

About Bird flu or avian influenza

- It is the **name used to describe a viral infection** that is **reported mostly in birds** but has the **potential to affect humans** and other animals.

Origin of Bird flu or avian influenza

- The **virus was first reported in geese in China in 1996.**
- Since then, outbreaks have been **reported periodically across the world.** **India reported the presence of the virus in Nandurbar, Maharashtra, in 2006.**

Common Strain

- The **most common strain** of the virus that **causes severe respiratory disease in birds is H5N1**; various other **strains like H7, H8 too, cause infection.**



Transmissions

Human Transmission

- The **H5N1 virus can jump species and infect humans** from the infected bird.
- The **first case of H5N1 infection in humans** was reported in **Hong Kong in 1997** when a **poultry farm worker** caught the **infection from infected birds.**

Human-Human Transmission

- The **high mortality rate** in humans, **almost 60%** is the **main cause of concern** about the **spread of bird flu.**
- However, in its present form, **human-to-human infection is not known** — human infections have been reported only among people who have handled **infected birds or carcasses.**

Current Situation in India

- Currently, **samples from Rajasthan, Madhya Pradesh, and Kerala have tested positive for the A (H5N8) strain** of the virus, while samples from **Himachal Pradesh have shown the presence of A (H5N1).**
- Most infections have been **reported either in wild birds, crows, or migratory birds.**

Topic- GS Paper III–Environment +Science and Technology

Source- The Hindu

Caracal put on a critically endangered species recovery programme

Why in the news?

- The **National Board for Wildlife** has recently **approved a recovery program** for the caracal under the scheme **Integrated Development of Wildlife Habitats (IDWH)**.
- With the **addition of the caracal**, there will now be **22 species on recovery programme of critically endangered species**.



About Caracal

- It is a **medium-sized wild cat** native to **Africa, the Middle East, Central Asia, and India**.
- It is **characterized by a robust build, long legs, a short face, long tufted ears, and long canine teeth**.
- In **India** these **wild cats** found in some parts of **Rajasthan and Gujarat**.
- The **semi-arid region of Kutch** is one of only **two homes** of this cat species in India.

Conservation Status

- The **International Union for Conservation of Nature (IUCN)** lists caracals as a species of '**least concern**', mainly **due to their large numbers in Africa**.
- But in **India**, they are listed as '**endangered**'.
- These **species are listed in Schedule I** of the **Wildlife (Protection) Act 1972**.

About the recovery programme of critically endangered species

- It is **one of the three components** of the **Integrated Development of Wildlife Habitats (IDWH)**.

Integrated Development of Wildlife Habitats

- It was **started in 2008-09** as a **centrally sponsored Scheme**.
- It is **meant for providing support to protected areas** (national parks, wildlife sanctuaries, conservation reserves and community reserves except for tiger reserves), **protection of wildlife outside protected areas** and **recovery programmes for saving critically endangered species and habitats**.
- The **22 wildlife species** under the **recovery programme** are:

Snow Leopard, Bustard (including Floricans), Dolphin, Hangul, Nilgiri Tahr, Marine Turtles, Dugongs, Edible Nest Swiftlet, Asian Wild Buffalo, Nicobar Megapode, Manipur Brow-antlered Deer, Vultures, Malabar Civet, Indian

Rhinoceros, Asiatic Lion, Swamp Deer, Jerdon's Courser, Northern River Terrapin, Clouded Leopard, Arabian Sea Humpback Whale, Red Panda and Caracal.

Topic- GS Paper III–Environment

Source- PIB

Management Effectiveness Evaluation of Indian Zoos (MEE-ZOO)

Why in the news?

- The **Union Environment Minister** launched the **Management Effectiveness Evaluation of Indian Zoos (MEE-ZOO)** framework.



About the MEE-ZOO framework

- It is a **framework** which **proposes guidelines, criteria, and indicators** for the **evaluation of zoos of the country** through **Management Effectiveness Evaluation Process (MEE-ZOO)** in a manner which is **discrete, holistic, and independent**.
- The **assessment criteria and indicators** look beyond the **traditional concepts, include issues of animal welfare, husbandry and sustainability of resources and finance**.
- The **MEE-ZOO exercise** is moving towards **developing highest standards in Zoos across India and adhering to core values of accountability, transparency, innovation, use of technology, collaboration, and integrity** to achieve the **mandate of conservation of endangered species**.

Related Information

- Recently, **Union Minister for Environment** released **Management Effectiveness Evaluation (MEE)** of **146 National Park and Wildlife Sanctuaries in the Country**.

About the Management Effectiveness Evaluation of National Park and Wildlife Sanctuaries in the Country

- At present, **India** has a **network of 903 Protected Areas** in the country covering about **5% of the total geographic area of the country**.
- In order to **assess the efficacy of Protected Areas, evaluation of management effectiveness** is required.
- **Management Effectiveness Evaluation (MEE)** of **Protected Areas (PAs)** has emerged as a **key tool for Protected Area managers** and is **increasingly being used by governments and international bodies to understand the strengths and weaknesses** of the protected area management systems.

- The results of the **present assessment are encouraging** with an **overall mean MEE score of 62.01%**, which is **higher than the global mean of 56%**.

Topic- GS Paper III–Environment

Source- PIB

One Planet Summit 2021

Why in the news?

- Recently, the **President of France** has inaugurated **One Planet Summit 2021** virtually to discuss climate change and the preservation of biodiversity and ecosystems.
- Previously the summit had been scheduled to take place in the **southern French port city of Marseille** in 2020, but was postponed due to the coronavirus pandemic.



About One Planet Summit 2021

- It is organized **by France** in cooperation with the **United Nations and the World Bank**.
- The summit is convened under the theme of “**Let’s act together for nature**”.

Four key themes for the preservation of life have been chosen.

Protecting terrestrial and marine ecosystems

- **The protection of terrestrial and marine ecosystems** is an essential pillar of action in favour of biodiversity. Protected areas, and the conservation of the species that live there, play a key role in the protection and restoration of biodiversity and will be a determining factor in achieving a reversal of the current trend.

Promoting agroecology

- The promotion of agro-ecology makes it possible to protect the diversity of ecosystems by reducing pollution while allowing more job creation and acting for food security.
- The summit will focus on accelerating the implementation of the Great Green Wall for the Sahara and the Sahel.

Boosting funding to protect biodiversity

- The mobilization of funding for biodiversity is committed, particularly with new commitments of innovative funding and initiatives to direct more public and private investment towards projects for the protection, sustainable

management and restoration of ecosystems or the necessary convergence of public funding for climate and biodiversity.

Identifying links between deforestation and the health of humans and animals.

- The link between deforestation, species and human health is in the spotlight.
- The summit will make it possible to work better together to prevent future pandemics, through the fight against deforestation and the prevention of risks related to our contact with wild species.

About One Planet Summit

- It is an initiative of the **President of the French Republic**, the **Secretary General of the United Nations**, and the **President of the World Bank Group**.

Aim

- The aim of the summit is to accelerate the implementation of the **Paris climate agreement (COP 15)**.
- The first One Planet Summit was organized in 2017 at Paris with the motto **“Let's not wait until it's too late to act”**.
- The summit of **2018 and 2019** had been took place in **New York and Nairobi**, respectively.

Note:

- The summit also launched a program called **PREZODE** which is an international initiative to prevent the emergence of **zoonotic diseases and pandemics**.

Topic- GS Paper III–Environment

Source- Indian Express

Synchronized rise of ‘Bad air’ in cities of Indo-Gangetic Plain in 2020: CSE analysis

Why in the news?

- **Air Pollution increased across cities of Indo-Gangetic Plain** during the winter of 2020-2021, this is despite gains made due to imposition lockdown across the country. However, the rise was synchronized and showed varying patterns according to a CSE analysis.



- The analysis carried out by Delhi-based non-profit **Centre for Science and Environment (CSE)**, also showed that pollution in smaller towns of the plain had increased substantially.

- Twenty-six cities across north India from Punjab, Haryana, Uttar Pradesh and Bihar were selected for analysis.

Amritsar	Bhatinda	Jalandhar	Khanna
Mandi	Gobindgarh	Patiala	Rupnagar
Chandigarh	Ambala	Fatehabad	Hisar
Kaithal	Kurukshetra	Panchkula	Sirsa
Yamunanagar	Agra	Kanpur	Moradabad
Varanasi	Lucknow	Patna	Muzaffarpur and Hajipur

Highlights of the analysis

- Based on publicly available **granular real time data** from **Central Pollution Control Board's official online portal – Central Control Room for Air Quality Management**, the data was analysed until **11th Jan 2021**.
- Overall **particulate matter (PM_{2.5}) average** was predictably lower due to prevailing lockdown and suspension of major economic activities. Yet, cause of concern

Recommendations

The experts suggest that the following measures can tackle the problem:

- Enforce power plant standards across states**
- Minimize use of coal** and other dirt fuels (and **improve emission controls**)
- Scale up public transport and vehicle restraint measure** and manage waste to have a zero waste and zero landfill strategy.

Topic: GS Paper III (Environment)

Source: Down To Earth

Adaptation Gap Report 2020

Why in the news?

- United Nations Environment Programme (UNEP)** has recently released the **5th edition of Adaptation Gap Report 2020**.



About Adaptation

- It is **one of the critical pillars** of the **Paris Agreement on Climate Change**.
- It involves **increasing capacity and reduction of vulnerability of countries and communities to climate-related disasters**.

- This **capacity will be built** by **national efforts and funding mechanisms**.

Aim

- The **report aims to indicate national and international efforts** to advance adaptation.

Key findings of the report

Finance

- The **annual cost of adaptation** to the **effects of climate change** for **developing countries** is estimated to at least **quadruple by 2050**.
- The **annual adaptation costs in developing countries** are much higher at **\$70 billion, compared to current finance of around \$30 billion** annually for adaptation.
- **Cost of Adaptation** includes costs like planning, preparing for, facilitating and implementing adaptation measures.
- **Adaptation costs**, in actual terms, are higher in developed countries, but the **burden of adaptation is greater for developing countries** in relation to their gross domestic product.

Rise in Temperature

- The **world is heading for at least a 3°C temperature rise** this century. Even if **countries are successful in limiting global warming** to well below **2°C, or even 1.5°C**, the poor countries will suffer.

Impact of Pandemic

- The COVID-19 pandemic is expected to hit the **ability of countries to plan for finance and implement adaptation actions**.
- It will **disproportionately affect the most vulnerable countries and population groups**.

Related Information

About the United Nations Environment Programme

- It is the **United Nation leading global environmental authority** that sets the **global environmental agenda**, promotes the **coherent implementation of the environmental dimension** of sustainable development.
- It is Headquartered at - **Nairobi, Kenya**

It works on **7 broad thematic** areas:

- i. Climate change,
- ii. Disasters and conflicts,
- iii. Ecosystem management,
- iv. Environmental governance,
- v. Chemicals and waste,
- vi. Resource efficiency, and
- vii. Environment under review

Other Reports of UNEP

- Global Environment Outlook
- Emission Gap Report
- Actions on Air Quality& Rise of Environmental Crime Report (along with INTERPOL)

Note:

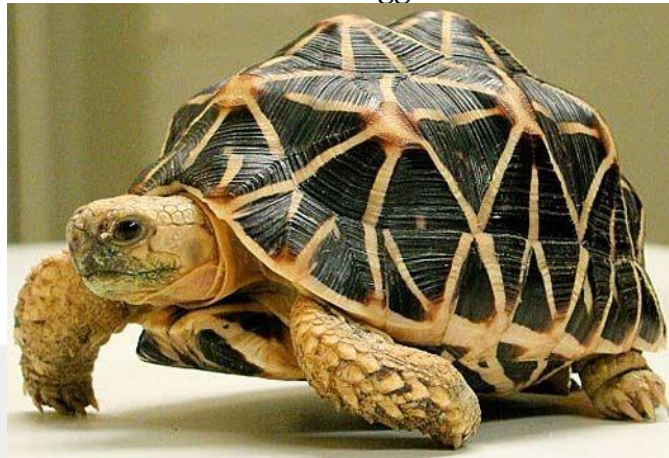
- **UNEP has recently honoured PM Narendra Modi with “Champions of the Earth” award in the leadership category for his pioneering work in championing the International Solar Alliance and for his unprecedented pledge to eliminate all single-use plastic in India by 2022”.**

Topic- GS Paper III–Environment
Source-Down to Earth

Indian star tortoises

Why in the news?

- The Forest Department authorities have recently seized as many as 414 live endangered Indian Star Tortoises smuggled from Andhra Pradesh to Odisha.



About Indian star tortoise

- Indian star tortoise is found across the Indian sub-continent, specifically in India's **central and southern parts, in West Pakistan and Sri Lanka**.
- These are accustomed to monsoon seasons.
- These tortoises are easily recognizable by their star-patterned shells.

Conservation Status

- These are listed as **Vulnerable** as per IUCN Red List.
- Protected under Schedule IV of **Wild Life Protection Act 1972** Convention on International Trade in Species (CITES): **Appendix I**

Threats

- It is the single most confiscated species of freshwater tortoise in the world.
- It faces threats such as loss of habitat to agriculture and illegal harvesting for the pet trade.

Topic- GS Paper III–Environment
Source-The Hindu

Sunderbans is home to 428 species of birds, says ZSI

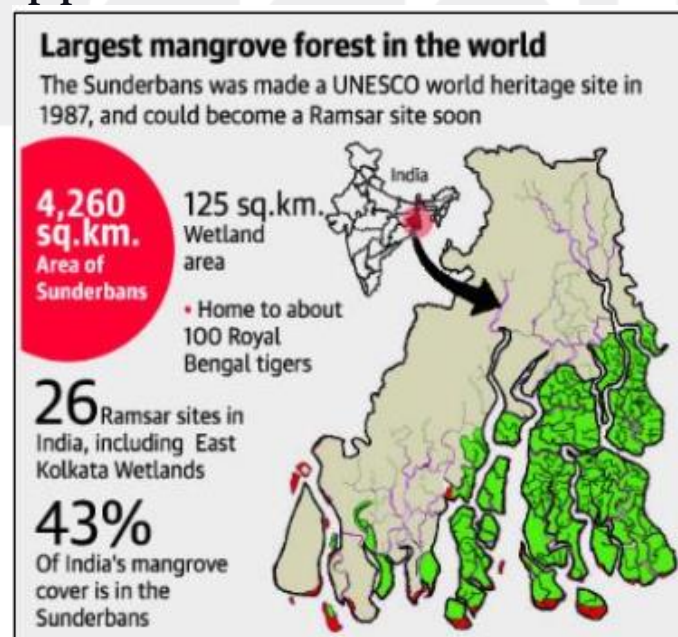
Why in the News?

- A recent publication of the Zoological Survey of India (ZSI) states that the Indian Sundarbans, which is part of the largest mangrove forest globally, is home to 428 species of birds.



Birds of the Sundarban Biosphere Reserve

- The publication, Birds of the Sundarban Biosphere Reserve, released by the ZSI, documents the Sunderbans' avifauna and serves as a comprehensive photographic field guide for the region.
- The scientists said of the 428 birds listed, some, like the masked finfoot and the Buffy fish owl, are recorded only from the Sunderbans.
- The area is home to **nine out of 12 species of kingfishers found in the country and rare species such as the Goliath Heron and the spoon-billed sandpiper.**



About Indian Sundarbans

- Indian Sundarbans was recognised as UNESCO World Heritage Site in 1987, 'Wetland of International Importance' under the Ramsar Convention in January 2019 and a Biosphere Reserve in 1989.
- The area is known for its wide range of fauna, including 260 bird species and is home to many rare and globally threatened wildlife species such as the

Estuarine Crocodile, Royal Bengal Tiger, Water Monitor Lizard, Gangetic Dolphin and Olive Ridley Turtles.

- The Sunderbans Delta is the **only mangrove forest in the world inhabited by tigers**.

Preservation efforts

- For its preservation, **Discovery India and World WideFund (WWF)** India partnered with the Government of West Bengal and local communities in the Sundarbans in 2019.
- It also has the largest mangroves forest in the world.
- It has also the largest mangroves forest in the world.

Topic- GS Paper III–Environment

Source-The Hindu

Air Quality Commission ropes in top technical institutions to set up a Decision Support System

Why in the news?

- The Commission for Air Quality Management (CAQM) in NCR and adjoining areas have begun setting up a Decision Support System (DSS) with a web, GIS and multi-model based operational and planning decision support tool.

About the Decision Support System

- This tool will help immensely in capturing the static and dynamic features of the emissions from various sources.
- It will have an integrated framework to handle both primary and secondary pollutants using a chemical transport model.
- The system will also handle the source-specific interventions with the framework to estimate the benefits of interventions. It will focus on presenting the best results in a comprehensive user-friendly and simple format for different users.

Related Information

About Commission for Air Quality Management in National Capital Region (NCR) and Adjoining Areas

- The Commission will be headed by a full-time chairperson who has been a Secretary to the Government of India, or a Chief Secretary to a State government.
- **Tenure:** The chairperson will hold the post for three years or **until s/he attains the age of 70 years**.
- It will have members from several Ministries as well as representatives from the stakeholder States.
- It will have experts from the CPCB, Indian Space Research Organisation (ISRO) and Civil Society.

Powers

- In air pollution and air quality management, the Commission will supersede all existing bodies such as the CPCB, and even the state governments of Haryana, Punjab, Rajasthan, and Uttar Pradesh.
- It will have the powers to issue directions to the states.
- The Commission will also coordinate efforts of state governments to curb air pollution and lay down the air quality parameters for the region.

- It will have powers to restrict the setting up of industries in vulnerable areas and will be able to conduct site inspections of industrial units.
- If its directions are contravened, the Commission will have the power to impose a fine of **up to Rs. 1 crore and imprisonment of up to 5 years.**

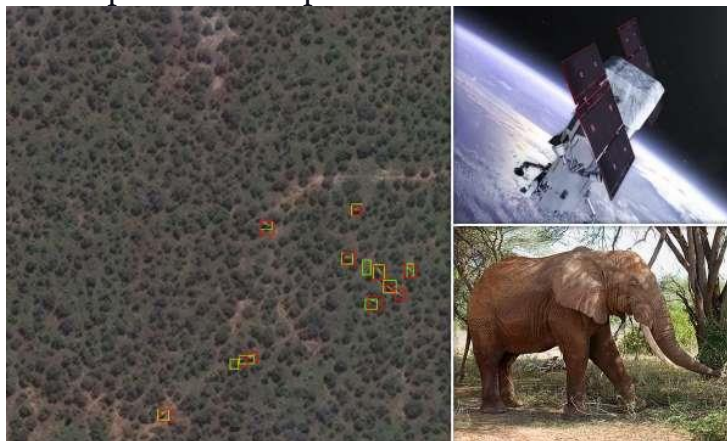
Topic- GS Paper III–Environment

Source-PIB

Counting Elephants from Space

Why in the news?

- Recently, a team of researchers from the University of Oxford Wildlife Conservation Research Unit and Machine Learning Research Group detected South African elephants from space.



Key Highlights

- The scientists are using very high-resolution satellite imagery to count and detect wildlife species.
- The scientists are using **Artificial Intelligence** with an accuracy that they have compared to human detection capabilities.
- To test the new method, the researchers chose the **Addo Elephant National Park in South Africa.**
- The scientists used satellite imagery that required no ground presence to monitor the elephants.

The researchers used the highest resolution satellite imagery currently available, **called Worldview3.**

- It is **South Africa's third-largest Park.**
- The Park stretches from the north's semi-arid karoo over the Zuurberg Mountains and down through the Sundays River valley to the coast, to between the mouths of the Sundays and Bushman's rivers.
- It protects the remnants of the huge elephant herds that once roamed the Eastern Cape.

Topic- GS Paper III–Environment

Source-Indian Express

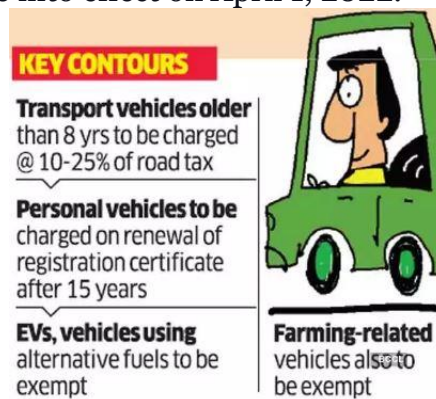
Green tax on vehicles older than 15 years

Why in the news?

- The Union Minister for Road Transport and Highways has approved a proposal to levy a 'green tax' on old vehicles.

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- The policy will come into effect on April 1, 2022.



What is Green Tax?

- Green tax, or pollution tax or environmental tax, as it is also called, is an excise duty on goods that cause environmental pollutants.
- It is believed that charging tax on emissions will help bring about changes in firms and households.
- The charging of taxes on emissions that cause pollution will lower environmental impairment in a cost-effective manner by encouraging behavioural changes in households and firms that need to decrease their pollution.
- Green tax is also called pollution tax or environmental tax. It is the tax levied on goods that cause environmental pollution.

Purpose of Green Tax

- The tax will discourage people from using vehicles that damage the environment. It will motivate them to switch to newer, less polluting vehicles, reduce the overall pollution level and make the polluter pay for it.

The Green tax will be applied to the vehicles in the following categories:

- Transport vehicles older than eight years to be charged at the time of renewal of fitness certificate at **10-25% of road tax**.
- Personal vehicles to be charged Green Tax at the time of renewal of Registration Certification after 15 years.
- Public transport vehicles such as city buses to be charged lower tax.
- Higher Green Tax of up to **50% of road tax** for vehicles being registered in highly polluted cities like Delhi-NCR.
- Differential tax depending on fuel (petrol/diesel) and type of vehicle.

How will the Green Tax be used?

- Revenue collected from the green tax will be kept in a separate account.
- The amount will be used for tackling the problem of pollution.
- States will also use the tax to set up state-of-art facilities to monitor the emission.

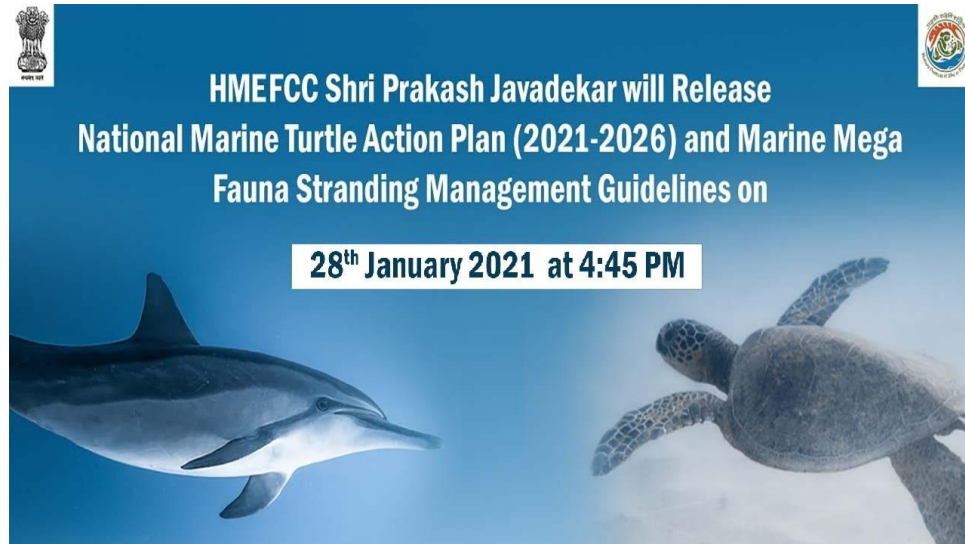
Topic- GS Paper III–Environment

Source-The Hindu

National Marine Turtle Action Plan

Why in the news?

- Recently, the Ministry of Environment Forest and Climate Change (MoEF&CC) has released 'Marine Mega Fauna Stranding Guidelines' and 'National Marine Turtle Action Plan'.



About the National Turtle Action Plan

- The documents contain ways and means to promote inter-sectoral action for conservation.
- It also suggests improved coordination amongst the government, civil society and all relevant stakeholders on the response to cases of stranding, injury or mortality of marine mammals and also conservation of marine turtles.

Need for conserving marine turtles:

- Despite the immense economic, ecological and cultural values of marine habitats in India, marine megafauna species and marine turtles face a wide variety of challenges including stranding and entanglement.
- Managing such challenging situations requires coordination, action and people's participation which would help in the long-term conservation of marine species and their habitats.

Related Information

Marine turtles along the Indian coast

- India has a coastline of more than 8000 km, which is rich in biodiversity.
- Apart from sustaining fishing grounds, India's coastal waters and beaches provide foraging and nesting sites for a variety of marine species, including sea turtles.
- Five species of sea turtles are known to inhabit Indian coastal waters and islands.**
- These are the Olive Ridley (*Lepidochelys olivacea*), Green (*Chelonia mydas*), Hawksbill (*Eretmochelys imbricata*), Loggerhead (*Caretta caretta*) and the Leatherback (*Dermochelys coriacea*) turtles.
- Except for the Loggerhead, the remaining four species nest along the Indian coast.**

- The coastal state of Odisha on the eastern coast of India experiences one of the world's largest **mass nestings or arribada** of the **Olive Ridley turtle** during the months of October to April.

About the Olive ridley turtles

- These are the smallest and most abundant of all sea turtles found in the world.
- These turtles are carnivores and get their name from their olive-coloured carapace.

Habitat

- They are found in warm waters of the Pacific, Atlantic and Indian oceans.

Conservation Status

- These are listed as **Vulnerable** in the **IUCN Red List** In **CITES** these are listed in **Appendix I**
- Listed in **Schedule I of Indian Wildlife (Protection) Act, 1972**

Step Taken for Conservation

- The Odisha government has recently made it mandatory for trawls to use **Turtle Excluder Devices (TEDs)**, a net specially designed with an exit cover which allows the turtles to escape while retaining the catch.

Topic- GS Paper III–Environment

Source-PIB

2021: Year of Indo-French alliance towards a Greener Planet

Why in the news?

- Union Minister for Environment and French Minister for Ecological Transition launched the Indo-French Year of the Environment.

About Indo-French Year of the Environment

Objective

- The basic objective is to strengthen Indo-French cooperation in sustainable development, increase the effectiveness of actions favouring global environment protection and give them greater visibility.
- The Indo-French Year of the Environment over the period 2021-2022 would be based on five main themes:
 1. environmental protection
 2. climate change
 3. biodiversity conservation
 4. sustainable urban development
 5. the development of renewable energies and energy efficiency
- It is also a platform for engaging in discussions on critical areas of collaboration relating to the environment and allied areas.
- The Ministry of Environment will coordinate the Indian side, Forest and Climate Change (MoEFCC), along with the Ministry of External Affairs, Ministry of Housing and Urban Affairs, Ministry of New and Renewable Energy, and other concerned Ministries/Departments/Organisations.

India and renewable energy

- India has made significant progress towards climate change action & has already achieved 26% emission intensity reduction.
- As of 2020, India's renewable capacity stands at **90 GW**, which includes **36 GW of solar energy & 38 GW of wind energy**.

Topic- GS Paper III–Environment, Source-PIB

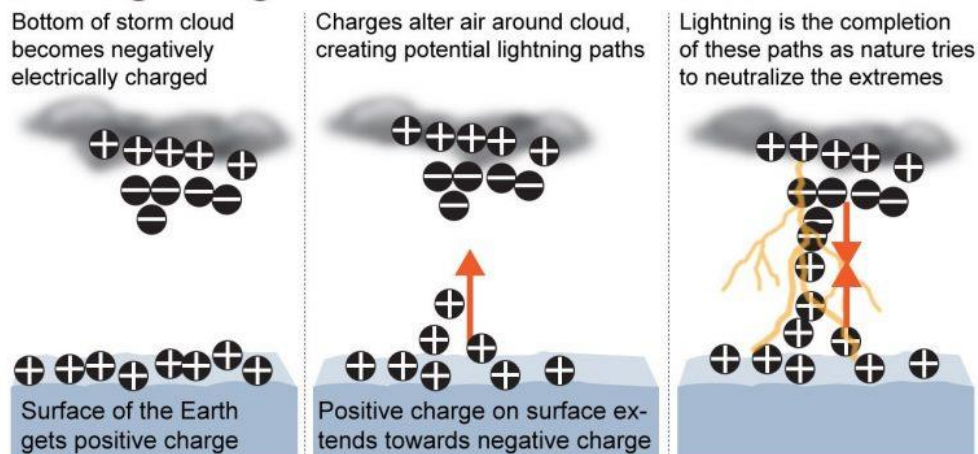
Geography

Lightning strikes, a major cause of deaths in India

Why in the news?

- Recently, the report prepared by Climate Resilient Observing Systems Promotion Council (CROPC) has highlighted that lightning strikes have caused 1,771 deaths between April 1, 2019 and March 31, 2020.

How lightning strikes the Earth's surface



Sources: Ariel Cohen, Tina Stall; Meteorologists NOAA National Weather Service @latimesgraphics

Key points of the report:

- Uttar Pradesh with 293 deaths, Madhya Pradesh 248, Bihar 221, Odisha 200 and Jharkhand 172 deaths together accounted for more than 60 per cent of the numbers.
- These deaths account for 33 percent of total fatalities from all-natural disasters during the time period.
- In 2018-19 period, there were 2,800 deaths and the drop has been attributed to the efforts of various stakeholders, including CROPC.
- The report suggests states “aggressively participate in Lightning Resilient India Campaign and undertake lightning risk management more comprehensively” in order to further reduce deaths.
- According to report, the Government of India and most states have not notified lightning as a disaster.

Related Information

About Lightning

- It is a naturally occurring electrostatic discharge during which two electrically charged regions in the atmosphere or ground temporarily equalize themselves, causing the instantaneous release of energy.
- This discharge may produce a wide range of electromagnetic radiation, from very hot plasma created by the rapid movement of electrons to brilliant flashes of visible light in the form of black-body radiation.

- **Lightning causes thunder**, a sound from the **shock wave which develops as gases in the vicinity of the discharge experience** a sudden increase in pressure.
- **Lightning occurs commonly during thunderstorms** and other types of **energetic weather systems**, but **volcanic lightning can also occur during volcanic eruptions**.

Forecast of Lightning

- **CROPC has a MoU with the India Met Department (IMD) to disseminate early lightning forecasts** which uses **satellite observations, inputs from ‘network of Doppler and other radars’, ‘lightning detection Sensors’** among others.
- It makes **Lightning Forecast unique** with **best possible lead time** of even a week taking into account the **devastations caused by the severe thunderstorms during pre-monsoon**.

Recommendations to tackle Lightning

- The **NDMA has issued comprehensive guidelines for preparations of Lightning action plans** to states, but the **large number of fatalities** show the implementation also needs a more **‘scientific and focused community centric approach’**.
- The mapping of lightning is a major breakthrough in **identifying the precise risk in terms of lightning frequency, current intensity, energy content, high temperature** and other adverse impacts.
- The **climatology of lightning** would yield a **Lightning Risk Atlas** map for India which will form the basis for a **lightning risk management programme**.

Topic- GS Paper I–Geography (also Disaster Management)

Source-Indian Express

Tide–Rainfall Flood Quotient

Why in the news?

- Recently, a **team from the Indian Institute of Technology Bombay** devised a **new metric or measure** called the **Tide–Rainfall Flood Quotient**.



About Tide–Rainfall Flood Quotient

- It **helps to understand if a coastal city is more prone to floods** caused by tidal events or extreme rain fall.

How it works?

- It uses the **past rainfall data, tidal data, and topography of the region** this **framework can be applied to pinpoint the major factor** at play.
- The team **selected three geographically diverse flood-prone coastal regions** to test their new metric.
 - a. Mithi Catchment in **Mumbai, Maharashtra**
 - b. Jagatsinghpur District in **Odisha**
 - c. Greater Chennai Corporation in **Tamil Nadu**
- The new method helped classify these regions into **‘storm-tide dominated’ or ‘pluvial (rainfall) dominated’ regions.**
- The metric can **help disaster management experts** in **framing better flood risk management systems** directed towards long term planning.

Topic- GS Paper I- Geography

Source- Indian Express

2020 was eighth hottest year since 1901

Why in the news?

- Recently, the **India Meteorological Department (IMD)** has said in its **State of the Climate Report** that the **2020 was eighth hottest year since 1901.**

Key Highlights of the IMD Data

Annual Mean Temperature

- The **country's averaged annual mean temperature** during 1901-2020 showed an **increasing trend of 0.62 degree C/100 years** with significant **increasing trend in maximum temperature (0.99 degree C/100 years)** and **relatively lower increasing trend (0.24 degree C/100 years)** in minimum temperature.
- The **annual mean land surface air temperature** averaged over **India during 2020** was **nearly 0.3 degree Celsius** above normal but was substantially lower than the **highest warming observed over India during 2016.**
- The **monsoon and post-monsoon seasons** contributed to most of the **temperature rise in 2020** with **mean temperature in winter** also above normal.
- **India's 0.3-degree rise** was less than the **average global temperature rise of 1.2 degree.**
- The **five warmest years on record** in order were: **2016 (0.71 degree C), 2009 (0.55 degree C), 2017 (0.541 degree C), 2010 (0.539 degrees C), and 2015 (0.42 degree C).**

Annual Rainfall

- The **2020 annual rainfall** over the country as a whole was **109 per cent of its Long Period Average (LPA)** based on the **data of 1961-2010.**
- The **2020 Northeast monsoon season (October-December)** rainfall over the country as a whole was **normal (101 per cent of Long Period Average).**

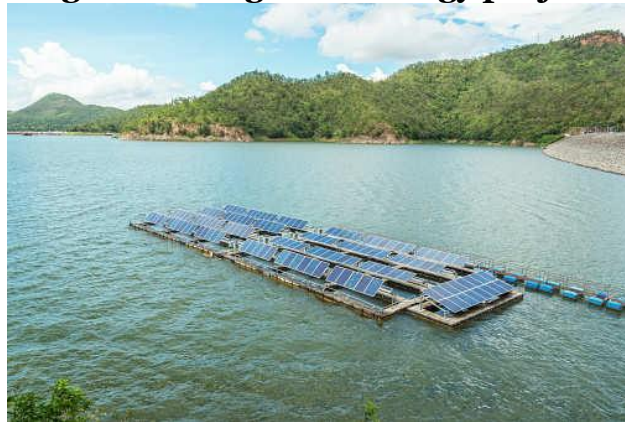
Topic- GS Paper I–Geography

Source-Indian Express

World's largest floating solar project at Omkareshwar

Why in the news?

- The **Government of India** has recently announced the **construction of the World's largest floating solar energy project**.



About the Project

- It is the **world's largest floating 600 MW solar energy project** to be **constructed at Omkareshwar dam** on **Narmada River** in **Khandwa district** of **Madhya Pradesh**.

Funding

- The **International Finance Corporation, World Bank** and **Power Grid** have **granted in-principal consent** for **providing aid** for the **project development**.
- The **primary feasibility study** of the project has been completed in **collaboration with the World Bank**.

Completion of Project

- The **project is likely to begin power generation** by year **2022-23**.

Key Features

- The project will **have floating solar panels of 600 MW power generation capacities** in the **backwaters of Omkareshwar dam**.
- **Solar panels** will **float on the surface of the water** in the reservoir.
- When the **water level of the dam is low**, it will **automatically adjust upwards and downwards**.
- **Strong waves and floods** will have **no effect on them**.
- It is **estimated that in 2 years**, the project **will start providing cheap and good quality power**.

Topic- GS Paper I–Geography

Source-The Hindu

Magneto-Telluric (MT)

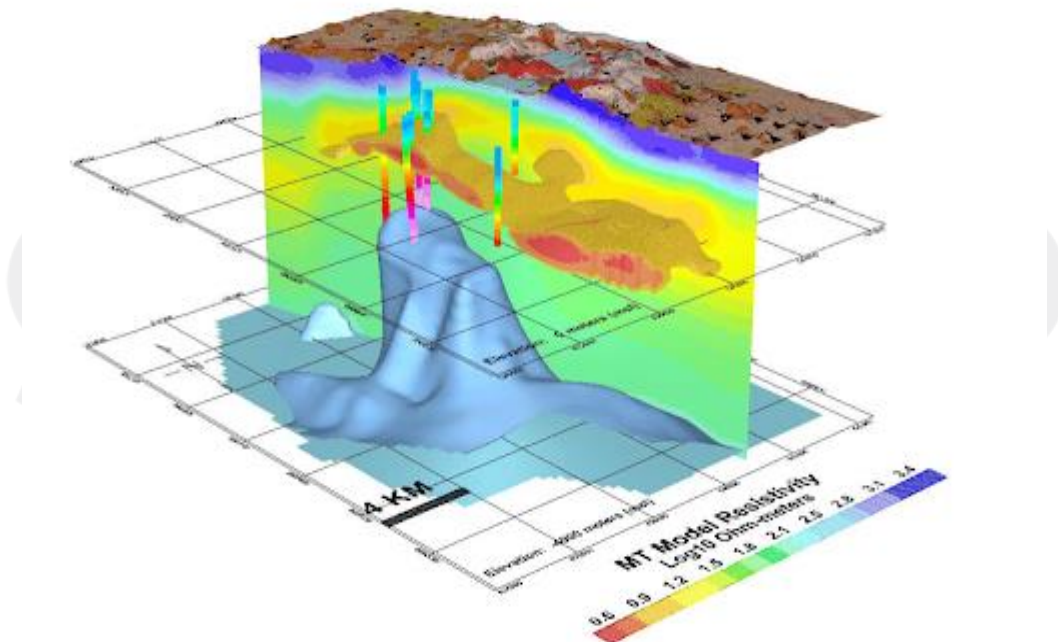
Why in the news?

- Recently, a **geophysical survey**, namely, **Magneto-telluric (MT)** is being **conducted over the Delhi region**.



Background

- The **National Capital Region of Delhi** experienced **4 small earthquakes** during **April – August 2020**.
- These **earthquakes** were followed by a dozen of micro-events (**$M < 3.0$**) including, a few aftershocks.
- All these events were **located by the National Seismological Network (NSN)**, being **operated, and maintained by National Seismological Centre (NCS)**, Ministry of Earth Sciences.



Institution Involved

- This **geophysical survey** is carried out in **collaboration with Wadia Institute of Himalayan Geology (WIHG)**, Dehradun.

About Magneto-Telluric (MT)

- Magneto-telluric (MT) is a **geophysical method** which uses natural time variation of the **Earth's magnetic and electric fields** to understand **geological (underground) structure and processes**.
- These measurements are conducted **across three major seismic sources**, namely **Mahendragarh-Dehradun Fault (MDF)**, **Sohna Fault (SF)** and **Mathura Fault (MF)**.
- These measurements will **ascertain the presence of fluid**, which generally enhances the **possibility of triggering of earthquakes**.

Significance of the survey

- This **survey information** can be **used for designing the earthquake resistant buildings, industrial units, and critical structures like, hospitals and schools etc.**

Related Information

About National Centre for Seismology

- The National Centre for Seismology is an office of the **Union Ministry of Earth Sciences.**
- It is **tasked with providing earthquake monitoring and hazard reports to governmental agencies.**

Objectives

- To **improve understanding of earthquake processes** and their effects through **seismological research and monitoring.**

The major activities currently being pursued by the NCS are:

- Earthquake monitoring on 24X7 basis
- Operation and maintenance of national seismological network comprising of 115 Stations
- Maintenance of Seismological data centre and information services.
- Seismic hazard microzonation related studies
- Aftershock/Earthquake swarm monitoring/survey
- Understanding of Earthquake processes
- Public outreach

Topic- GS Paper I–Geography Source-Indian Express

Grand Renaissance Dam hydropower project

Why in the news?

- **Ethiopia, Sudan, and Egypt have recently agreed to resume negotiations to resolve their decade-long complex dispute over the Grand Renaissance Dam hydropower project in the Horn of Africa.**



About Grand Ethiopian Renaissance Dam

- It was formerly known as the **Millennium Dam** is located in **Ethiopia**, on the **Blue Nile River** about **40km east of Sudan**.
- The dam will be the **largest hydroelectric power** plant in **Africa** when completed as well as **the seventh largest in the world**.

What is the dispute?

- The **Nile River** has been at the **center of the dispute** involving **several countries** that are **dependent on the river's waters**.
- At the forefront of this dispute are **Ethiopia, Egypt, and Sudan**.
- The main waterways of the Nile run through **Uganda, South Sudan, Sudan and Egypt** and its **drainage basin runs through several countries** in East Africa including **Ethiopia**, the **portion** where this dam is being constructed.
- Egypt has objected to the **dam's construction** saying the **dam's location** on the **Blue Nile tributary** would **allow Ethiopia to gain control of the flow of the river's waters** and could result in **lower water levels within its own borders**.
- **Sudan** too is concerned that if **Ethiopia were to gain control over the river**, it would **affect the water levels Sudan receives**.

Note:

- The **construction of the dam** was initiated in **2011 on the Blue Nile tributary** of the river that **runs across one part of Ethiopia**.

Topic- GS Paper I + II–Geography + International Relation

Source-Indian Express

Arunachal harbours a vanadium source

Why in the news?

- **Arunachal Pradesh**, considered a **sleeping hydropower giant**, could be **India's prime producer of vanadium**, a **high-value metal** used in **strengthening steel and titanium**.










About the finding

- **Geological Survey of India (GSI)** found **promising concentrations of vanadium** in the **palaeo-proterozoic carbonaceous phyllite rocks** in the **Depo and Tamang areas** of **Arunachal Pradesh's Papum Pare district**.

- It is **geologically** similar to the “**stone coal**” vanadium deposits of China hosted in **carbonaceous shale**.
- This **high vanadium content** is associated with **graphite with a fixed carbon** content of **up to 16%**.

Vanadium

atomic number	23	50.942	atomic weight
symbol	V		acid-base properties of higher-valence oxides
electron configuration	[Ar]3d ³ 4s ²		crystal structure
name	vanadium		physical state at 20 °C (68 °F)

 Transition metals	 Solid
 Body-centred cubic	 Equal relative strength

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Significance

- According to data provided by GSI, India consumed 4% of about 84,000 metric tons of vanadium produced across the globe in 2017.
- China, which produces 57% of the world's vanadium, consumed 44% of the metal.
- The vanadium finds in Arunachal Pradesh could help boost the local and national economy.

About Vanadium

- Vanadium in its pure form is a soft, grey, and ductile element primarily derived from mined iron ore, carbonaceous shale or phyllites and steel slag.
- It is recovered as a by-product from the slag collected from the processing of vanadiferous magnetite ores (iron ore).
- The symbol of Vanadium is V and atomic number 23.

Properties

- Vanadium alloys are durable in extreme temperature and environments and are corrosion resistant.
- Its addition improves the tensile strength of steel and of reinforcing bars used for buildings, tunnels, and bridges.

Topic- GS Paper I–Geography

Source- The Hindu

Lithium Deposit in India

Why in the news?

- Preliminary surveys by the Atomic Minerals Directorate for Exploration and Research (AMD), are learnt to have shown the presence of 1,600 tonnes of lithium resources in the igneous rocks of the Marlagalla-Allapatna region of Karnataka's Mandya district.

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About Lithium

- The **first lithium mineral petalite, $\text{LiAlSi}_4\text{O}_{10}$** , was discovered on the **Swedish island of Utö** by the **Brazilian, Jozé Bonifácio de Andrada e Silva** in the 1790s.
- In **1817, Johan August Arfvedson of Stockholm** analyzed it and deduced it contained a **previously unknown metal**, which he called **Lithium**.

Place in Periodic Table

- **Lithium (Li)**, chemical element of **Group 1 (IA)** in the periodic table and having **symbol Li** and **atomic number 3**.

Characteristics

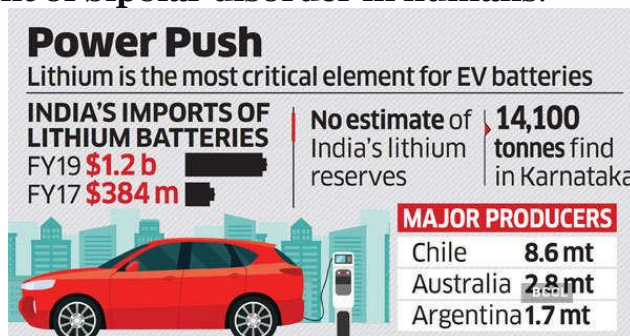
- It is a **soft, silvery-white alkali metal**.
- Under **standard conditions**, **Lithium** is the **lightest metal and the lightest solid element**.
- Like all alkali metals, **Lithium is highly reactive and flammable**.
- It **never occurs freely in nature** due to its **high reactivity**.

Extraction of Lithium

- **Lithium** can be **extracted in different ways**, depending on the type of the deposit – it is **generally done either through solar evaporation** of large **brine pools** or by **hard-rock extraction** of the ore.

Uses of Lithium:

- **Lithium and its compounds** have **several industrial applications**, including **heat-resistant glass and ceramics**, **flux additives for iron, steel and aluminium production**, lithium batteries and lithium-ion batteries.
- It is also present in **biological systems in trace amounts**; its functions are uncertain.
- **Lithium salts** have proven to be **useful as a mood-stabilizing drug** in the **treatment of bipolar disorder** in humans.



Largest Producers of Lithium

- In **2019**, the **largest producer of the Lithium** was **Australia**, followed by **Chile** and **China**.

Lithium in India

- **India** currently **imports all its lithium needs**.

Lithium Exploration in India

- **India** is currently **going for the domestic exploration push**, which also includes **exploratory work to extract Lithium** from the **brine pools of Rajasthan and Gujarat** and the **mica belts of Odisha and Chhattisgarh**.

- The **Margalla-Allapatna area** along the **Nagamangala Schist Belt**, which exposes **mineralized complex pegmatites (igneous rocks)** is seen as among the **most promising geological domains for potential exploration** for **Lithium and other rare metals**.
- There is also **some potential for recovering Lithium** from the brines of **Sambhar and Pachpadra in Rajasthan** and **Rann of Kachchh in Gujarat**.
- The **major mica belts in Rajasthan, Bihar, and Andhra Pradesh**, and the pegmatite belts in **Odisha and Chhattisgarh** apart from **Karnataka** are the other potential geological domains.

Related Information

Steps Taken by Government for Li-ion battery

- In **June 2018**, **Central Electro Chemical Research Institute (CECRI)** in **Tamil Nadu's Karaikudi**, under the **Council of Scientific & Industrial Research (CSIR)** and **RAASI Solar Power Pvt Ltd** signed a **Memorandum of Agreement for transfer of technology** for **India's first lithiumion (Li-ion) battery project**.
- To **promote indigenous** development of such batteries, the **Union Cabinet in 2019 approved a programme**, called a **National Mission on Transformative Mobility and Battery Storage** in the **NITI Aayog** to “drive clean, connected, shared, sustainable and holistic mobility initiatives.”
- The government has announced investments worth **\$1.4 billion** to make **India** one of the **largest manufacturing hubs** for **electric vehicles by 2040**.

Note:

- Recently, **India's first Lithium refinery**, which will **process Lithium ore to produce battery-grade material**, will be **set up in Gujarat**.

Topic- GS Paper I–Geography

Source- The Hindu

Mount Semeru

Why in the news?

- Recently, the **Geological Agency of Indonesia** has reported that a **volcano has erupted from Mount Semeru**.



About Mount Semeru.

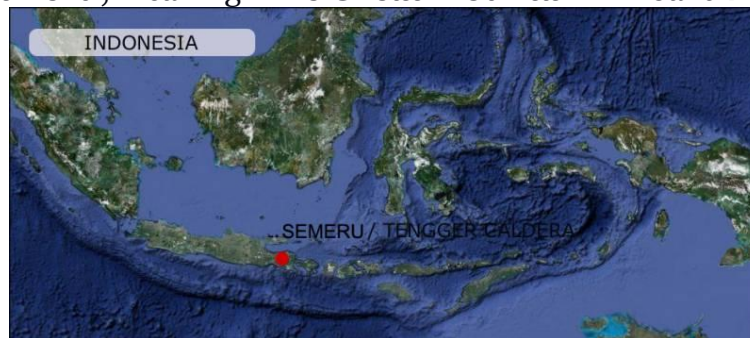
- It is a **stratovolcano** located in **East Java, Indonesia** containing an active **Jonggring-Seloko vent** at the **Mahameru summit**.

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- It is located in the **subduction zone**, where the **Indo-Australia plate subducts** under the **Eurasia plate**.
- It is the highest mountain on the **island of Java**, which is also known as **Mahameru**, meaning "**The Great Mountain**" in Sanskrit.



Related Information

About Pacific Ring of Fire

- The **Ring of Fire** also referred to as the **Circum-Pacific Belt**, is a path along the **Pacific Ocean** characterized by **active volcanoes and frequent earthquakes**.
- These places are **dotted with 75% of Earth's all active volcanoes**.
- It traces **boundaries between several tectonic plates** including the **Pacific, Juan de Fuca, Cocos, Indian-Australian, Nazca, North American, and Philippine Plates**.
- The **abundance of volcanoes and earthquakes** along the **Ring of Fire** is caused by the **amount of movement of tectonic plates in the area**.
- The countries affected by it are **Indonesia, the Philippines, Malaysia, Japan, Australia and New Zealand, Papua New Guinea**, and other island nations like the **Solomon Islands, Fiji**, and many more in **Melanesia, Micronesia, and Polynesia**.



Related Terms

Cooling Ring

- The **Pacific Plate**, which **drives much of the tectonic activity in the Ring of Fire**, is cooling off.

- Scientists have discovered that the **youngest parts of the Pacific Plate** (about 2 million years old) are **cooling off and contracting at a faster rate** than **older parts of the plate** (about 100 million years old).
- The **younger parts of the plate** are found in its **northern and western parts**—the **most active parts of the Ring of Fire**.

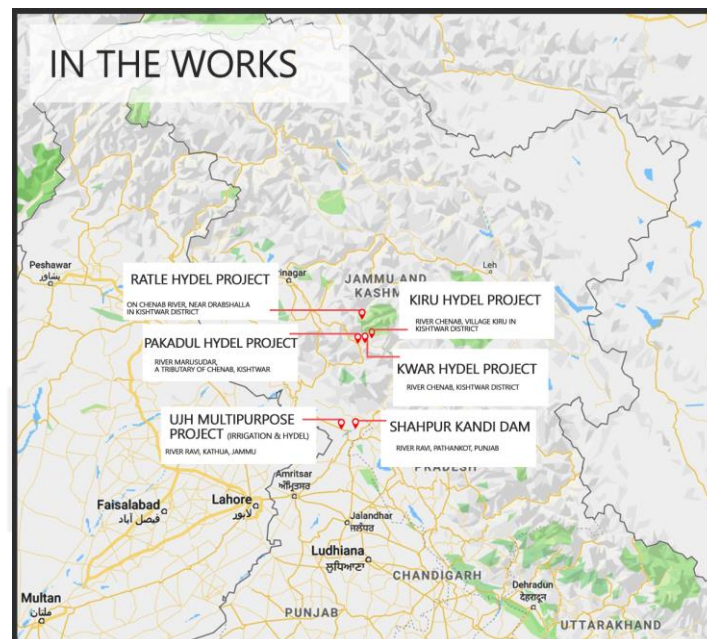
Topic- GS Paper I–Geography

Source-The Hindu

Ratle Hydro Power Project

Why in the news?

- The Union Cabinet has recently given its approval 850 MW Ratle Hydro Electric.



About the Ratle Hydro Power Project

- This hydroelectric project is located on river Chenab, in Kishtwar district of Union Territory of Jammu and Kashmir.
- The Power generated from the project will help provide balancing of Grid and improve the power supply position.

Objectives

- The construction activities of the project will result in direct and indirect employment to around 4000 persons. They will contribute to the overall socio-economic development of the Union Territory of Jammu and Kashmir.

Related Information

Other important Hydro Projects of Jammu and Kashmir

Kiru hydroelectric project

- It is a run-of-river scheme. It is located, in Kishtwar district of J&K State.
- It is a Hydro Electric Project of 624 MW installed capacity is proposed on river Chenab.

Pakal Dul (Drangdhuran) Hydroelectric Project

- It is a reservoir-based scheme proposed on river Marusudar, the main right bank tributary of river Chenab in Kishtwar Tehsil of Doda District in Jammu & Kashmir.

Kishanganga Power station

- It is located on Kishanganga River, a tributary of river Jhelum in Bandipora District of Jammu & Kashmir.

Dulhasti power station

- It is run-of-the-river with pondage scheme with an installed capacity of 390 MW (3 X 130MW) to harness river Chenab's hydropower potential.
- It is located in Kishtwar district of Jammu & Kashmir.

Uri hydroelectric plant

- It is a run-of-the-river power project on the Jhelum River in the Uri area of Baramullah District, Jammu and Kashmir.

Topic- GS Paper I–Geography

Source-Indian Express

gradeup

Schemes, Reports, Indexes and Committees

Digital Payments Index (DPI)

Why in the news?

- **Reserve Bank of India (RBI)** has recently launched a '**Digital Payments Index (DPI)**'.



About the Digital Payments Index (DPI)

Objective

- It helps to **capture the extent of digitisation of payments** across the country **given the sharp pick-up in digital transactions** seen in the recent past.

Parameters

- **It is based on the five parameters** on which RBI would measure the **penetration of digital payments**.
- The five key parameters include:
 - Payment performance (45%).
 - Payment enablers (25%).
 - Payment infrastructure—supply-side factors (15%).
 - Payment infrastructure—demand-side factors (10%).
 - Consumer centricity (5%)

Base Period

- The **RBI-DPI index was set-up with March 2018** as the base period with the **score set at 100**.
- The **DPI for March 2019** and **March 2020** work out to **153.47** and **207.84** respectively, indicating appreciable growth.

Duration of Releasing Index

- The **index shall be published on RBI's website** on a **semi-annual basis** from March 2021 onwards **with a lag of four months**.

Topic- GS Paper III—Economics

Source-Indian Express

Remission of Duties and Taxes on Exported Products (RoDTEP) scheme

Why in the news?

- **Government has decided to extend the benefit of the scheme for Remission of Duties and Taxes on Exported Products (RoDTEP)** to all export goods to boost export.



Recent Developments

- The **scheme will refund to exporters** the embedded **Central, State, and local taxes** that were so far not being given rebate or refunded.
- The **refund will be credited in the exporter's ledger account** with **Customs** and used to pay **Basic Customs duty** on imported goods.
- **The credits can also be transferred to other importers.**
- The **RoDTEP rates** will be **notified shortly by the Department of Commerce**, based on the **recommendation of a Committee** chaired by former **Commerce and Home Secretary Dr. G.K. Pillai**.

Background

- ✓ **About Remission of Duties and Taxes on Exported Products (RoDTEP) scheme**
- The **scheme had been implemented from 1st January 2020.**
- It will replace the existing **Merchandise Exports from India Scheme (MEIS).**

Benefits

- **Indian exporters** will be able to **meet the international standards for exports** as **affordable testing and certification** will be made **available to exporters** within the **country** instead of relying on **international organizations.**
- Also, under it, **tax assessment is set to become fully automatic** for exporters.
- The **businesses will get access to their refunds for GST** via an automatic refund-route.
- This would **increase the economy** for the **country** and **working capital for the enterprise.**
- **RoDTEP** will coordinate with the **World Trade Organization (WTO)** to **reduce the post-production transaction costs for exporters.**
- ✓ **About Merchandise Export from India Scheme (MEIS)**
- It was **introduced in the Foreign Trade Policy (FTP) 2015-20 w.e.f. 1st April 2015.**

Objective

- Its objective is to **offset infrastructural inefficiencies** and **associated costs involved in exporting goods/products** which are **produced**

/manufactured in India including products produced/manufactured by MSME Sector.

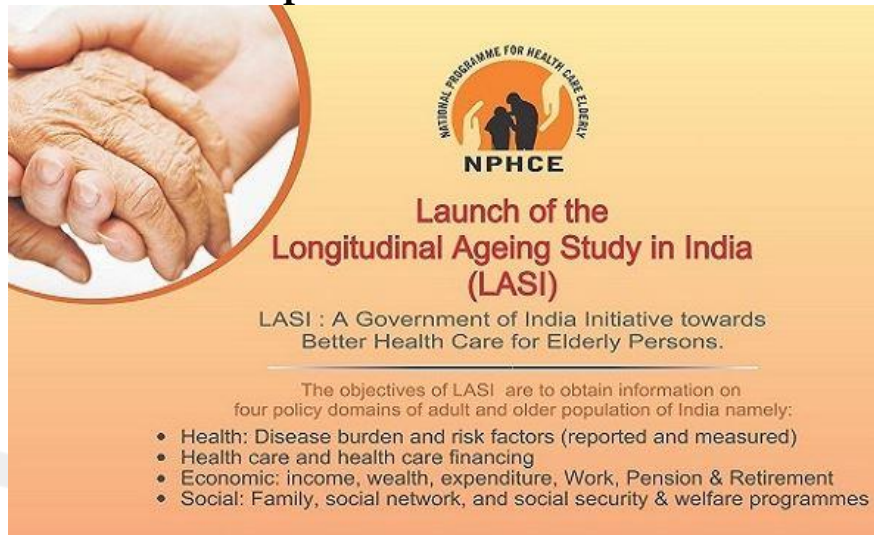
Topic- GS Paper III–Economics

Source-Economics Times

Longitudinal Ageing Study of India (LASI)

Why in the news?

- **Union Minister for Health & Family Welfare** has recently released **INDIA REPORT** on **Longitudinal Ageing Study of India (LASI) Wave-1** on the **virtual platform**.



About Longitudinal Ageing Study of India (LASI)

- It is a **full-scale national survey of scientific investigation** of the **health, economic, and social determinants and consequences of population ageing** in India.
- It is **India's first and the world's largest** ever survey that provides a **longitudinal database for designing policies and programmes** for the **older population** in the broad **domains of social, health, and economic well-being**.

Institutions Involved

- The **National Programme for Health Care of Elderly, Ministry of Health & Family Welfare** has undertaken the **Longitudinal Ageing Study of India**, through **International Institute for Population Sciences, (IIPS)**, and **Mumbai** in collaboration with **Harvard School of Public Health, University of Southern California, USA, Dte.GHS, United Nations Population Fund (UNFPA)** and **National Institute on Ageing**.

Coverage

- The LASI, Wave 1 **covered a baseline sample of 72,250 individuals aged 45 and above** and their spouses **including 31,464 elderly persons aged 60 and above** and **6,749 oldest-old persons aged 75 and above** from all States and **Union Territories (UTs) of India (excluding Sikkim)**.

Methodology

- The LASI has embraced **state-of-the-art large-scale survey protocols** and **field implementation strategies** including **representative sample of India and its States, socioeconomic spectrum, an expansive topical focus, a longitudinal design**, and the use of **Computer Assisted Personal Interviewing (CAPI) technology** for **data collection, quality control, and Geographic Information System (GIS)**.

Use of Biomarkers

- A unique feature of **LASI is the coverage** of comprehensive **biomarkers**.
- No other **survey in India collects** detailed data on **health and biomarkers** together with information on **family and social network, income, assets, and consumption**.

Highlighting of the LASI

- In the **2011 census, the 60 plus population** accounted for **8.6 per cent of India's population**, accounting for **103 million elderly people**.
- Growing at around **3 per cent annually**, the number of elderly people will rise to **319 million in 2050**.
- **75 per cent** of the **elderly people suffer** from some **chronic diseases**.
- About **40 per cent of the elderly people** have one or the other disability and **20 per cent have issues related to mental health**.

Significance

- The evidence from LASI will be used to **further strengthen and broaden the scope of National Programme for Health Care of the Elderly**.
- It also helps in **establishing a range of preventive and health care programmes** for older population and most vulnerable among them.

Related Information

About National Programme for Health Care of the Elderly (NPHCE)

- National Programme for Health care for Elderly was **launched in 2010**.
- It is an **articulation of the International and national commitments of the Government** as envisaged under the **UN Convention on the Rights of Persons with Disabilities (UNCRPD)**, **National Policy on Older Persons (NPOP) adopted by the Government of India in 1999** and **Section 20** of "The Maintenance and Welfare of Parents and Senior Citizens Act, 2007" dealing with provisions for medical care of Senior Citizen.

Vision

- To provide **accessible, affordable, and high-quality long-term, comprehensive, and dedicated care services** to an Ageing population.
- Creating a new "**architecture**" for Ageing.
- To **build a framework to create an enabling environment** for "**a Society for all Ages**".
- To promote the **concept of Active and Healthy Ageing**.
- Districts will be linked to **Regional Geriatric Centres** for **providing tertiary level care**.

Funding Pattern

- The **Centre bears 75% of the total budget** and the **State Government contributes 25% of the budget**, for activities up to district level.

Eligible Beneficiary

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- All elderly People (**above 60 Years**) in the country.

Specific Objectives

- To **provide an easy access to promotional, preventive, curative, and rehabilitative services** to the **elderly** through **community based primary health care approach**.
- To **identify health problems** in the **elderly** and **provide appropriate health interventions** in the community with a **strong referral backup support**.
- To **build capacity of the medical and paramedical professionals** as well as the **caretakers within the family** for **providing health care to the elderly**.
- To **provide referral services** to the **elderly patients** through **district hospitals, regional medical institutions**.
- Convergence with **National Rural Health Mission, AYUSH** and other line departments like **Ministry of Social Justice and Empowerment**.

Topic- GS Paper II – Social Issue

Source- PIB

Six Years of UJALA and SLNP

Why in the news?

- Governments of India's zero subsidies **Unnat Jyoti by Affordable LEDs for All (UJALA)** and **Street Lighting National Programme (SLNP)** have completed their **six years of implementation** recently.



Key Highlights

Achievement UJALA

- Under **UJALA**, **Energy Efficiency Services Limited (EESL)** has distributed over **36.69 crore LED bulbs** across India.
- It has **resulted in estimated energy savings of 47.65 billion kWh** per year with **avoided peak demand of 9,540 MW**.
- It estimated **Greenhouse Gas (GHG) emission reduction of 38.59 million tonnes CO2** per year.

Achievement of SLNP

- With **SLNP**, **Energy Efficiency Services Limited** has installed about **1.14 crore LED streetlights** across India.
- It has resulted in an **estimated energy savings of 7.67 billion kWh** per year with avoided peak demand of 1,280 MW.

- It has **estimated GHG emission reduction of 5.29 million tonnes CO₂ per year.**
- The programmes have **bagged global awards** like the prestigious **South Asia Procurement Innovation Award (SAPIA) 2017.**

Note:

- Both **UJALA and SLNP** have also bagged the **Global Solid-State Lighting (SSL) award of excellence** for the **transformational contribution to the LED sector.**

Related Information:

About Unnat Jyoti by Affordable LEDs for All (UJALA)

- **Unnat Jyoti by Affordable LEDs for All** was launched on 1 May 2015, replacing the "**Bachat Lamp Yojana**".
- The scheme was **implemented to set up phase wise LED distribution across the nation to provide people with affordable LED bulbs and energy efficient appliances.**
- The objective is to **promote efficient lighting, enhance awareness** on using **efficient equipment** that will **reduce electricity bills** and preserve the environment.

About Street Lighting National Programme (SLNP)

- It was **launched in 2015** to replace **conventional streetlights** with smart and energy **efficient LED streetlights across India.**
- **Energy Efficiency Services Limited** replaces the **conventional streetlights with LEDs** at its **own costs** and the **consequent reduction in energy and maintenance cost of the municipality** is used to repay EESL over a period of time.

Implementing agency

- Energy Efficiency Services Limited, a **Public Energy Services Company** under the **administration of Ministry of Power, Government of India (GoI)** is the **implementing agency for SLNP.**
- **It is the world's largest streetlight replacement programme.**

Topic- GS Paper II – Government Policies & Interventions

Source- PIB

New Industrial Development Scheme for Jammu & Kashmir

Why in the news?

- Recently, the **Cabinet Committee on Economic Affairs** has approved the proposal of **Department for Promotion of Industry and Internal Trade** for **New Industrial Development Scheme for Jammu & Kashmir.**

New Industrial Development Scheme For Jammu & Kashmir



About New Industrial Development Scheme for Jammu & Kashmir

- It is a **Central Sector Scheme** for the **development of Industries in the UT of Jammu & Kashmir**.
- The scheme is **approved with a total outlay of Rs. 28,400 crore** upto the year 2037.
- The **main purpose of the scheme** is to generate employment which **directly leads to the socio-economic development** of the area.



Objective

- The scheme **aims to take industrial development** to the **block level in UT of J&K**, which is **first time in any Industrial Incentive Scheme** of the **Government of India** and attempts for a **more sustained and balanced industrial growth** in the **entire Union Territories**.
- The **smaller units with an investment in plant & machinery upto Rs. 50 crores** will get a **capital incentive upto Rs. 7.5 crore** and get capital interest subvention at the **rate of 6% for maximum 7 years**.
- The scheme has been **simplified on the lines of ease of doing business** by bringing one major incentive i.e., **GST Linked Incentive** that will ensure less **compliance burden without compromising on transparency**.

Topic- GS Paper III –Economics

Source- PIB

Economic Impact of Internet shutdown in Indian and world economy

Why in the news?

- According to a **report by the UK-based privacy and security research firm Top10VPN**, India suffered the **longest internet shutdowns in 2020 globally**.

Highlights of the report

Global impact

- Globally, **internet shutdowns** cost the **world economy \$4 billion**.
- However, this **represents a 50% decrease in impact** compared to **\$8.05 billion in 2019**.

Impact on India

- **India** suffered the **biggest economic impact** in the **world in 2020** due to **Internet shutdowns** adding up to **8,927 hours** and **\$2.8 billion losses**.
- Among **21 countries** that **curbed internet access** last year, the **economic impact** seen in **India** was **more than double** the combined cost for the next 20 countries on the list.
- **India** continued to **restrict Internet access** more than any other country – **over 75 times in 2020**.
- The **majority of these short blackouts** were **highly targeted**, affecting groups of **villages or individual city districts**.
- The report made a **separate mention of the extended curbs on Internet** use in **Jammu and Kashmir**, which was the **longest Internet shutdown** in any **democracy of the world**.

Related Information

- Recently, the **National Internet Exchange of India (NIXI)** announced that it would **offer a free IDN (Internationalized Domain Name)** in any of their preferred **22 official Indian languages**.
- It will be **available along with every IN domain** booked by the registrant.
- This offer has been **created to stimulate the adoption of भारत (IDN) domain name** and **proliferation of local language content**.

About National Internet Exchange of India

- It is a **not-for-profit organization** working since **2003** for **spreading internet technology** to the **citizens of India**.

Topic- GS Paper III–Economics

Source- The Hindu

Financial Stability Report

Why in the news?

- The **Reserve Bank of India (RBI)** has released the **22nd issue of the Financial Stability Report (FSR) 2021**.



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Key Highlights

- The **capital to risk-weighted assets ratio (CRAR)** of **Scheduled Commercial Banks (SCBs)** improved to **15.8 per cent** in **September 2020** from **14.7 per cent** in **March 2020**.
- The **gross non-performing asset (GNPA)** ratio of **SCBs** declined to **7.5 per cent** from **8.4 per cent**.
- The **provision coverage ratio (PCR)** of **SCBs** improved to **72.4 per cent** from **66.2 per cent**.
- The **Macro stress tests** incorporating the **first advance estimates of gross domestic product (GDP) for 2020-21** indicate that the **GNPA ratio of all SCBs** may increase from **7.5 per cent** in **September 2020** to **13.5 per cent** by **September 2021**.
- It highlights the **need for proactive building up of adequate capital to withstand possible asset quality deterioration**.
- The **network analysis** reveals that **total bilateral exposures** among entities in the **financial system** increased marginally during the **quarter ended in September 2020**.
- The **gross non-performing asset (GNPA)** ratio of **private sector banks (PVBs)** and **foreign banks (FBs)** may increase from **4.6%** and **2.5%** to **7.9%** and **5.4%**, respectively.

Recommendation of RBI to deal existing stock of Bad Loans

Recapitalising weak public sector banks

- The banks may not be in a position to **raise money on their own**, unlike the **bigger ones (SBI, PNB, BoB etc.)** and may **require handholding from the government**.

RBI as banking judge of the Banking System

- The **interventions from judiciary and government on stressed asset resolution** have done **much damage to the banking sector** in the past.
- The **RBI is given a free hand** to do its **job and regulator** is the **best judge of what is good for the banking system**.

Idea of Bad Bank

- The **Bad Bank** refers to a **separate entity** where **all the bad assets of the banking industry** can be bundled into.
- A **bad bank** can be a **reality only if the government takes the lead** and provides the initial capital.

About capital to risk-weighted assets ratio (CRAR)

- It is also known as **Capital Adequacy Ratio**, which the ratio of a bank's capital to its risk.
- The **banking regulator tracks a bank's CAR** to ensure that the bank can **absorb a reasonable amount of loss** and complies with **statutory Capital requirements**.
- The **higher the CRAR of a bank**, the **better capitalised** it is.
- The **capital to risk-weighted assets ratio** is calculated by **adding a bank's tier 1 capital and tier 2 capitals** and dividing the total by its **total risk-weighted assets**.

Note:

- **Global Financial Stability Report** has been published by the **International Monetary Fund (IMF)**.

Topic- GS Paper III–Economics
Source- The Hindu + rbi.org.in

Pradhan Mantri Fasal Bima Yojana (PMFBY)

Why in the news?

- On **13th January 2016**, the **Government of India** took a **historic step** towards **strengthening risk coverage** of **crops** for **farmers of India** and **approved the flagship crop insurance scheme** - the **Pradhan Mantri Fasal Bima Yojana (PMFBY)**.



About the Pradhan Mantri Fasal Bima Yojana

- It was **launched in 2016** and being administered by the **Ministry of Agriculture**.
- It is an **insurance service scheme** for **farmers for their yields**.
- It **aims to reduce the premium burden on farmers** and **ensure early settlement of crop assurance claim** for the **full insured sum**.
- It was **formulated in line with One Nation–One Scheme** theme by replacing earlier **two schemes National Agricultural Insurance Scheme (NAIS) and the Modified National Agricultural Insurance Scheme (MNAIS)**.
- The **scheme covers all Food & Oilseeds crops and Annual Commercial/Horticultural Crops** for which **past yield data is available** and for which **requisite number of Crop Cutting Experiments (CCEs)** are being **conducted under General Crop Estimation Survey (GCES)**.

Implemented by

- The **scheme is implemented by empanelled general insurance companies**.
- The **scheme is compulsory for loanee farmers** availing **Crop Loan /KCC account for notified crops** and **voluntary for other others**.
- The **average sum insured per hectare has increased from ₹15,100 during the pre-PMFBY Schemes to ₹40,700 under PMFBY**.

Topic- GS Paper III–Agriculture (Important Scheme)

Source- PIB

5th National Kayakalp Awards

Why in the news?

- Union Minister of **Health and family Welfare** has inaugurated the **5th National Kayakalp Awards**.

About National Kayakalp awards

- It was launched by the Ministry of Health and Family Welfare **in 2015** as part of the **Swachh Bharat Abhiyan** to ensure hygiene, sanitation and cleanliness in **Public Health Facilities in India**.

Aim

- The award recognises and facilitates those District Hospitals, Sub-divisional hospitals, Community Health Centres, Primary Health Centres and Health & Wellness Centres in the public healthcare system who have achieved high levels of cleanliness, hygiene and infection control.

Parameters

The parameters on which the performance of the facility would be judged are as follows

- Hospital/Facility Upkeep
- Sanitation and hygiene
- Waste Management
- Infection control
- Support Services
- Hygiene Promotion

Assessment

- The assessment of these parameters is done sequentially through a three-tier system – internal assessment followed by peer assessment and then external assessment.

Significance

- The success of Kayakalp has been internationally applauded during the 72nd World Health Assembly, held on 20-28th May 2019.

Topic- GS Paper II–Health issue

Source- Indian Express

Henley Passport Index 2021

Why in the news?

- India has been ranked **85th** in the most powerful passport report '**Henley Passport Index 2021**'.



About the Henley Passport Index

- It is prepared by the Henley and Partners, a London-based global citizenship and residence advisory firm.
- It was **launched in 2006** and **includes 199** different passports.
- **It ranks passports based on their power and mobility.**
- The index gathers data from the **International Air Transport Association (IATA)** that manages inter-airline cooperation globally.

Highlight of the Index

Top Rank Holders

- **Japan** continues to hold the number one position on the index, with passport holders able to access 191 destinations around the world visa-free.
- **Singapore** is in second place (with a score of 190) and South Korea ties with Germany in third place (with a score of 189).
- Over the index's 16-year history, the top spots were traditionally held by **EU countries, the UK, or the US.**
- This year, it is the **Asia-Pacific (APAC) passports** which are the most powerful in the world as it includes some of the first countries to begin the process of recovering from the Covid-19 pandemic.

Bottom Rank Holders

- Syria, Iraq and Afghanistan continue to be the countries with the worst passport to hold with a passport score of 29, 28 and 26 respectively.

India's Performance

- India ranks 85th, with a visa-free score of **58.**
- **The Indian passport ranked higher in both 2020 (84th) and 2019 (82nd).**

Topic- GS Paper II–International Relation

Source- Indian Express

2nd edition of India Innovation Index

Why in the news?


- **NITI Aayog** and the **Institute for Competitiveness** released the **second edition of the India Innovation Index** in a virtual event.



About the India Innovation Index

- The India Innovation Index **aims to create an extensive framework** for the continual **evaluation of India's innovation environment of 28 states and eight Union Territories** in India
- It intends to perform the following functions:
 - Ranking of states and UTs** based on their **index scores**.
 - Recognizing opportunities and challenges** and **Assisting in tailoring governmental policies** to foster innovation.
 - The **Index will create synergies between different stakeholders** in the **innovation ecosystem**, thus **enabling India to shift to good competitive governance**.
- The **innovation inputs** were measured through **five enabler parameters** and the output through **two performance parameters**.
- The **five enablers Parameter** are **Human Capital, Investment, Knowledge Workers, Business Environment, Safety and Legal Environment**.
- The **two Performance Parameters: Knowledge Output and Knowledge Diffusion**.
- The states have been bifurcated into three categories:
 - Major states
 - North-east and hill states
 - Union territories / city-states / small states.

Highlights of the Index

Best performers		
Four of the five highest scoring major States in the India Innovation Index are from the south		
	Rank	Major States
	1	Karnataka
	2	Maharashtra
	3	Tamil Nadu
	4	Telangana
	5	Kerala
	6	Haryana
	7	Andhra Pradesh
	8	Gujarat
	9	Uttar Pradesh
	10	Punjab
		Score
		42.5
		38.03
		37.91
		33.23
		30.58
		25.81
		24.19
		23.63
		22.85
		22.54

Under 'Major States' category

- Karnataka** continued to **occupy the top position**.
- Four southern states—Karnataka, Tamil Nadu, Telangana and Kerala—occupied the top five spots** under the **'Major States' category** this year.

Lowered Scored Major State

- Jharkhand, Chhattisgarh, and Bihar** scored the **lowest on the Index**, which put them at the bottom in the **"major States" category**. Under **Union territories/city-states / small states category**
- Delhi** retained its **first rank**, while **Chandigarh** made a big leap since 2019 and **landed in the second place this year**.

Under the 'North-Eastern/Hill States' category

- **Himachal Pradesh** moved up from the **second position to emerge as the top ranker this year.**
- The **2019's top performer (in this category), Sikkim, slipped down to the fourth position.**

Reason of Karnataka Rank

- **Karnataka's rank** is attributable to **its substantive number of venture capital deals, registered Geographical Indications and Information and communications Technology exports.**
- Its **high Foreign Direct Investment (FDI) inflow** has also enhanced the **innovation capabilities of the State.**

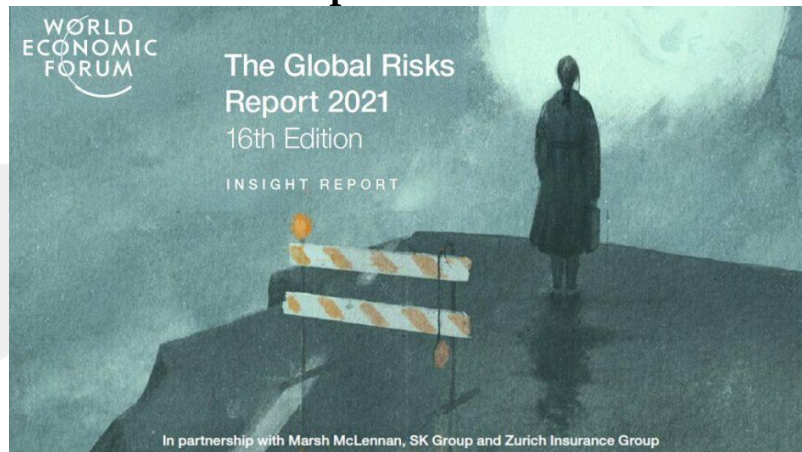
Topic- GS Paper II–Governance

Source-The Hindu

16th Edition of 'Global Risks Report 2021'

Why in the news?

- The **World Economic Forum (WEF)** has recently released its **16th edition of Global Risks Report 2021.**



Highlights of the report

Global risks perceptions

- Among the **highest likelihood risks of the next ten years** are
 - extreme weather,
 - climate action failure
 - human-led environmental damage; as well as digital power concentration
 - digital inequality and cybersecurity failure.
- Among the **highest impact risks of the next** decade infectious diseases are in the top spot, followed by climate action failure and other environmental risks; as well as weapons of mass destruction, livelihood crises, debt crises and IT infrastructure breakdown.
- Nearly 60 per cent of respondents to the GRPS identified "infectious diseases" and "livelihood crises" as the top short-term threats to the world.
- Loss of lives and livelihoods will increase the risk of "social cohesion erosion", also a critical short-term threat identified in the GRPS.

- **Infectious diseases** followed by climate action failures are the biggest global risk for the coming decade (for other Global risks perceptions refer to Infographics).
- **Economic fragility** and societal divisions are set to increase as underlying disparities in healthcare, education financial stability and technology have led crisis to disproportionately impact certain groups and countries.
- **Growing digital divides** and technology adoption pose concerns which are further accelerated by COVID-19.
- **Economic fragility and long-term health** impacts caused by the COVID-19 pandemic will continue to have devastating consequences.

Other Report of World Economic Forum

- Global Human Capital Index
- Global Information Technology Report
- Travel and Tourism Competitiveness Report
- Global Competitiveness Report
- Global Enabling Trade Report
- Global Energy Architecture Performance Index Report
- Global Environment Performance Index
- World Power Language Index
- Inclusive Development Index
- Global Gender Gap Index
- Global Risk Report
- Energy Transition Index
- Future of Jobs Report
- Global Manufacturing Index
- Social Mobility Index

Topic- GS Paper III– Important Reports

Source-The Hindu

Production Linked Incentive (PLI) scheme

Why in the news?

- The government has approved drug firms including Aurobindo Pharma and Karnataka Antibiotics & Pharmaceuticals under the PLI scheme to promote domestic manufacturing of critical bulk drugs.



About Production Linked Incentive (PLI) scheme

- To make India a manufacturing hub, the government recently announced the PLI scheme for mobile phones, pharma products and medical equipment sectors.
- It is a part of **the National Policy on Electronics scheme** which was notified on April 1, 2020.
- The Production Linked Incentive (PLI) scheme aims at promotion of manufacturing of critical key starting materials (KSM)/drug intermediates and Active Pharmaceutical Ingredients (APIs) in the country.

Tenure of the scheme

- The PLI scheme will be active for five years with financial year (FY) 2019-20 considered the base year to calculate incentives.
- This means that all investments and incremental sales registered after FY20 shall be taken into account while computing the incentive to be given to each company.

Which companies and what kind of investments will be considered?

- All electronic manufacturing companies that are either Indian or have a registered unit in India will be eligible for the scheme.
- These companies can either create a new unit or seek incentives for their existing units from one or more locations in India.
- Any additional expenditure incurred by companies on the plant, machinery, equipment, research and development, and technology transfer to manufacture mobile phones and related electronic items will be eligible for the incentive scheme.
- However, companies' investment on land and buildings for the project will not be considered for any incentives or determine the scheme's eligibility.

Topic- GS Paper III–Economics

Source-The Hindu

GDP to contract 8% in FY21, FICCI survey

Why in the news?

- According to the latest **FICCI's Economic Outlook Survey**, India's GDP is expected to contract by **8% in 2020-21**.

Background

- The industry body's annual median growth forecast is based on responses from leading economists representing industry, banking, and financial services sectors.



Key highlights of the survey

For Agriculture

- The median growth forecast for agriculture and allied activities has been pegged at 3.5% for 2020-21.
- "Agriculture sector has exhibited significant resilience in the face of the pandemic.

Industries and Services Sector

- Industry and services sector, which were most severely hit due to the pandemic induced economic fallout, are expected to contract by 10% and 9.2% respectively during 2020-21.
- The industrial recovery is gaining traction, but the growth is still not broad-based.
- The quarterly median forecasts indicate GDP growth to contract by 1.3% in the third quarter of 2020-21.
- The growth is expected to be in the positive terrain by the fourth quarter with a 0.5% growth projection.

Topic- GS Paper III–Economics

Source-The Hindu

Ageing dams in India, US, other nations pose a growing threat: UN report

Why in the news?

- The report, titled '**Ageing water infrastructure: An emerging global risk**' and compiled by United Nations University's Canadian-based Institute for Water, Environment and Health has recently released.



Key Highlights of the Report

According to the report

- by 2050, most people on Earth will live downstream of tens of thousands of large dams built in the 20th century between 1930 and 1970 with a design life of 50 to 100 years, already operating at or beyond their design life.
- About 55% of the world's total dams are found in just four Asian countries: China, India, Japan, and South Korea.
- Globally there is a trend of decommissioning ageing dams to ensure public safety, escalating maintenance costs, reservoir sedimentation, and restoration of a natural river ecosystem.

Issue with decommissioning

- It will change in the local economy as it impacts Fisheries, agriculture, tourism and hydropower.

- It also impacts the cultural history and heritage of a particular region.
- The report also suggested developing a framework of protocols that will guide and accelerate dam removal.

India and Dam

- There are over 1,115 large dams in India that will be roughly 50 years old in 2025; more than 4,250 large dams in the country will be more than 50 decades old in 2050, and 64 large dams will be more than 150 years old in 2050.
- The report said that approximately 3.5 million people are at risk if India's Mullaperiyar dam in Kerala, built over 100 years ago.
- In a seismically active area, the dam shows significant structural flaws and its management is a contentious issue between Kerala and the Tamil Nadu States.

Steps Taken in India for Improving Dam Management

Dam Safety Bill, 2019

- Lok Sabha passed it for the surveillance inspection, operation, and maintenance of all specified dams across the country.

Dam Rehabilitation and Improvement Project (ORIP)

- It will help to improve the safety and operational performance of selected dams.
- Recently, the cabinet approved phase 2 and 3 of the Dam Rehabilitation and Improvement Project.

DHARMA (Dam Health and Rehabilitation Monitoring) software

- It is used to effectively collect and manage asset and health data for all large dams in India.

Topic- GS Paper III–Disaster Management

Source-The Hindu

Global Climate Risk Index 2021

Why in the news?

- According to the Climate Risk Index 2021, released by environmental think tank German watch, India incurred the maximum losses due to extreme weather in 2019.
- The index was released ahead of the **climate adaption summit** that began virtually January 25 and is hosted by the Netherlands.



About the Global Climate Risk Index

- The Global Climate Risk Index (CRI) analyses quantified impacts of extreme weather events in fatalities and economic losses.
- The index is based on data from Munich Re's NatCatSERVICE.

Major findings of the Climate Risk Index 2021:

- **Mozambique, Zimbabwe, Malawi, South Sudan and Niger** was the five African countries among the ten most-affected due to extreme weather in 2019 according to the index.
- **Mozambique and Zimbabwe were ranked first and second.**
- Malawi was ranked fifth, South Sudan eighth and Niger ninth.
- The index ranked India as the country that suffered the second-highest monetary loss due to climate change in 2019 after Japan.
- It also showed that eight out of the ten countries most affected by extreme weather events in 2019 belong to low to lower-middle-income.
- Five of them fall into the category of Least Developed Countries.

India and the Report

- India ranks seventh among countries most affected in 2019 by climate change.
- It also ranked India as the country that suffered the second-highest monetary loss due to climate change in 2019 after Japan.

Topic- GS Paper III–Environment

Source-Down to Earth

COVID-19 performance ranking

Why in the news?

- The Lowy Institute, an Australian think tank has recently released the COVID-19 “performance index.”

About the COVID-19 “performance index

- The index was based on six different indicators, including confirmed cases and deaths per million people and the scale of testing, sought “to gauge the relative performance of countries.”
- It has been assessing 98 countries in the 36 weeks that followed their hundredth case.

Key highlights of the index

- The institute found that although the outbreak began in China, the Asia-Pacific region fared the best, while Europe and the U.S. were initially overwhelmed.
- Europe, however, “registered the greatest improvement over time of any region” before succumbing to a second wave, which is attributed to more open borders.
- **Best Performing Countries:** New Zealand and Vietnam were ranked the best-performing countries in their response to the pandemic.
- **India ranked 86 out of 98 countries, while the U.S. stood at 94.** Sri Lanka was the best faring nation in South Asia, ranking 10, while the Maldives was at 25, Pakistan at 69, Nepal at 70, and Bangladesh at 84.
- **Brazil is at the bottom of the index.**
- China was not included “due to a lack of publicly available data on testing”.

Topic- GS Paper III–Health Issues (important index) + International Matters

Source-The Hindu

Art and Culture

Jallikattu, a bull-taming sport

Why in news?

- Jallikattu an **infamous bull-taming sport** was observed as part of Mattu Pongal in south India, especially in **Tamil Nadu**. The sport has traditionally been part of the festival of Pongal. However, the practice has long been **contested with animal rights groups** and the courts concerned over **issues of cruelty to animals** and the **bloody and dangerous nature** of the sport.



What does Jallikattu mean?

- Jallikattu comes from terms, ‘**salli kaasu**’ meaning coins and ‘**kattu**’ meaning **package tied to the horns of bulls** as **prize money**.
- In **2017, Tamil Nadu** saw massive protests demanding that the Centre and the **Tamil Nadu Govt** should take **legal steps to hold Jallikattu**.
- The ban was imposed as there was rise in incidents of injury and death associated with the sport, both to the participants and to the animals forced into it. **Animal rights organizations** have **called for a ban to the sport**.

What is the importance of this sport?

- Jallikattu is a **custom practiced where cattle stock** is worshipped during the **Pongal festival primarily** in Tamil Nadu.

Note:

- Likewise, ‘**Kanuma**’ also observed in **Telangana** as part of its culture on the third day of Makar Sankranti. This festival involves worshipping of cattles to mark the importance of the cattle in the nourishment and development of the society.

GS Paper I: Art and Culture

Source: The Hindu, Indian Express, AIR

World's oldest known cave painting found in Indonesia

Why in the news?

- Archaeologists have **recently discovered the world's oldest known cave art** — a **life-sized picture of a wild pig** painted at **least 45,500 years ago** in **Indonesia**.

- The previously **oldest dated rock art 'scene'** at least **43,900 years old** depicted **hybrid human-animal beings hunting Sulawesi warty pigs and dwarf bovids.**



About the Painting

- The **painting has been uncovered in South Sulawesi** consists of a **symbolic depiction of a warty pig, a wild boar that is endemic to this Indonesian island.**
- The technique used to identify the age of painting:
 - The **researchers used a uranium-series dating technique** to analyse a **mineral formation that overlapped part** of the image, and that must have formed after the **cave art was produced.**
 - The **mineral formation is at least 45,500 years old**, suggesting the **artwork itself could be much older.**



Significance

- The **painting provides the earliest evidence of human settlement** of the region.

Note:

- In **South Africa**, a **hashtag-like doodle** created **73,000 years ago** is believed to be **the oldest known drawing.**

Topic- GS Paper I–Art and Culture

Source- The Hindu

Subhash Bose Aapda Prabandhan Puraskar 2021

Why in the news?

- Recently, Rajendra Kumar Bhandari and the Sustainable Environment and Ecological Development Society (SEEDS) have been selected for the Subhash Bose Aapda Prabandhan Puraskar 2021.



Key Highlights

- Rajendra Kumar Bhandari** has been selected in the Individual category for his work in this disaster management.
- Sustainable Environment and Ecological Development Society** has been selected in the institutional **category** for their commendable work in building community resilience to disasters.

About Subhash Bose Aapda Prabandhan Puraskar 2021

- It will be announced every year on 23rd January, the birth anniversary of Netaji Subhash Chandra Bose.

Objective

- The award is given to recognise and honour the invaluable contribution and selfless service rendered by individuals and organisations in India in disaster management by the central government.

Award money

- The award carries a cash prize of ₹51 lakh and a certificate in case of an institution and ₹five lakh and a certificate in case of an individual.

Eligibility

- All Indian Citizens and organisations, who have excelled in Disaster Management (Prevention, Mitigation, Relief or Early Warning), are eligible for the award.

Topic- GS Paper III–Disaster Management

Source-The Hindu

Bhima Koregaon

Why in the news?

- Recently, the United Nations of the Office of the High Commissioner for Human Rights has urged the Indian government to release the activists who are in prison for the 2018 Bhima Koregaon case, "at the very least on bail".



Background

- The Bhima Koregaon case dates back to January 1, 2018, which marked the 200th anniversary of the Bhima Koregaon battle.
- The event was organised to celebrate the British army's victory, **which included a large number of Mahars, against Peshwa Baji Rao II's army.**
- Several human rights activists, including Sudha Bharadwaj, Varavara Rao and Gautam Navlakha, were arrested during the investigation.

About Bhima-Koregaon

- It is a small village in Pune district of Maharashtra, Bhima-Koregaon, associated with an important phase of Maratha history.
- On January 1, 1818, a Dalit-dominated British Army had defeated a Peshwa army, led by Peshwa Bajirao II, in Koregaon.
- The battle attained a legendary stature for Dalits, who consider the win as a victory of the Mahars against the injustices perpetrated by the Peshwas.
- A pillar, known as **Vijay Sthamb (victory pillar)**, was installed by the East India Company to remember those who fought for them in the battle.
- It is at this **pillar that thousands of Dalits come to pay respect** every year on **January 1.**

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Source-The Hindu

Patharughat uprising

Why in the news?

- Recently the government and local people pay tribute to the martyrs of the incident (Krishak Swahid Diwas) at Patharughat, a small village in Assam's Darrang district.



What led to the Patharughat uprising?

- After the British annexation of Assam in 1826, surveys of the vast lands of the state began.
- On the basis of such surveys, the British began to impose land taxes, much to the resentment of the farmers.
- In 1893, the British government decided to increase agricultural land tax reportedly by 70- 80 per cent.
- Due to which the peasants began protesting, but the British perceived these gatherings as breeding grounds for sedition.
- There was a lathi charge, followed by an open firing which killed many of the peasants present.
- According to the official record, as mentioned in the Darrang District Gazette, 1905, edited by BC Allen, placed the casualties in the Patharughat incident as 15 killed and 37 wounded."
- However, unofficial sources claim it was a much higher number.

Significance of incident:

- For the larger Assamese community, Patharughat comes second only to the Battle of Saraighat, when the Ahoms defeated the Mughals in 1671.
- It is extremely inspirational for the Assamese community, as a national awakening.
- It was a peaceful protest and a precursor to the Civil Disobedience movement, which was later propagated by Mahatma Gandhi.

Note: It is also known as Jallianwala Bagh of Assam.

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Source-Indian Express