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November 2020



A Current Affairs Series for UPSC Examination

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Compendium – November 2020

Dear Students,

With the present examination pattern of UPSC Civil Services Examination, General Studies papers require a lot of specialization with 'Current Affairs'. Moreover, following the recent trend of UPSC, almost all the questions are based on news as well as issues. CL IAS has now come up with **'JOIN THE DOTS! NOVEMBER 2020'** series which will help you pick up relevant news items of the day from various national dailies such as The Hindu, Indian Express, Business Standard, LiveMint, PIB and other important sources.

'JOIN THE DOTS! NOVEMBER 2020' series will be helpful for prelims as well as Mains Examination. We are covering every issue in a holistic manner and covered every dimension with detailed facts. This edition covers all important issues that were in news in the month of June 2019. Also, we have introduced Prelim base question for Test Your Knowledge which shall guide you for better revision. In addition, it would benefit all those who are preparing for other competitive examinations.

We have prepared this series of documents after some rigorous deliberations with Toppers and also with aspirants who have wide experience of preparations in the Civil Services Examination.

For more information and more knowledge, you can go to our website

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"Set your goals high, and don't stop till you get there"

All the best!!

Team CL

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Prelims Perspicuous Pointers

Join the dots!

A current affairs series for UPSC Examination

Prelims Factoids: Prime Minister inaugurates to & fro Sea-plane Service between Kevadia and Sabarmati Riverfront in Ahmedabad

Benefits of Seaplane Services:
A new era of Air travel in India

- India's First Commercial Seaplane Services
- Travel time between Statue of Unity, Kevadia and Sabarmati River Front will reduce from 4 hrs to 45 mins
- A new dimension to tourism of the region
- Generation of employment opportunities

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Relevance IN – Prelims (about country's first sea plane service + about water aerodromes – locations)

What's the NEWS

- The Prime Minister inaugurated **Water Aerodrome at Kevadia** and the Sea-plane Service connecting **Statue of Unity in Kevadia with Sabarmati Riverfront in Ahmedabad**.
- He also inaugurated Water Aerodrome in Sabarmati Riverfront in Ahmedabad and the SeaPlane Service from Sabarmati Riverfront to Kevadia.
- These are part of a series of Water Aerodromes being planned to bring the last mile connectivity.

Salient Features of Water Aerodromes:

- Developed at ₹36 Crore each at Kevadia & Sabarmati
- Terminal Building Area – 700 sqm
- Category 2B Type of Floatplanes suitable for carrying upto 14 passengers per flight
- Eight trips per day

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Know! more about the sea plane service

- This the country's first scheduled sea plane service that will connect Statue of Unity to Ahmedabad
- It will be managed by private airline SpiceJet which will operate a 19-seater plane, which will be able to accommodate 12 passengers.
- There will be four flights a day between Ahmedabad and Kevadia on each side — which means four arrivals and four departures.
- Apart from beginning seaplane services to Surat, SpiceJet also plans to introduce seaplane services between Port Blair and Havelock in the Andaman and Nicobar Islands, Kaziranga in Assam, Delhi to Naini lake, Haridwar, Rishikesh and Tehri Dam. Similar operations are also planned in Srinagar, Ladakh, Udaipur, Sunderbans in West Bengal and backwaters of Kerala.

Know! about sea planes

- Seaplanes can land in water bodies like lakes, backwaters and dams thus offering easy access to numerous tourist spots as well.
- Amphibious planes are reliable, tough and resilient and can take off and land from places that do not have landing strips or runways and water bodies, thus reaching areas that lack other modes of transport or adequate infrastructure. Reliable, tough and resilient these smaller fixed wing aircraft can land on water bodies, gravel and grass.

Prelims Factoids: Public Affairs Index-2020

Relevance IN – Prelims (Public Affairs Index-2020 – highlights)

What's the NEWS

- Kerala has been adjudged as the best-governed state in the country in the Public Affairs Index-2020 released by the Public Affairs Centre
- The report was released by the **Bengaluru-based not-for-profit organization headed by K Kasturirangan**, former chairman of the Indian Space Research Organisation.
- Uttar Pradesh was placed on the last position in the table in the large states category.

Public Affairs Index-2020 highlights

- The ranking was given to states as per their governance performance based on a composite index in the context of sustainable development in terms of equity, growth and sustainability.
- In the large state category, four southern took the top four positions in the list.
- Kerala stood first with 1.388 PAI index points followed by Tamil Nadu which got 0.912 points. Andhra Pradesh and Karnataka got the third and fourth positions with 0.531 and 0.468 points, respectively.
- Uttar Pradesh (-1.461), Odisha (-1.201) and Bihar (-1.158) were placed at the bottom three positions in the table.
- In the small state category, Goa finished on top with 1.745 points. Meghalaya got the second position with a score of 0.797 points, closely followed by Himachal Pradesh which got 0.725 points. Manipur (-0.363), Delhi (-0.289) and Uttarakhand (-0.277) finished at the bottom in this category.
- In the list of Union Territories, Chandigarh was adjudged the best with 1.05 PAI points followed by Puducherry which got 0.52 points. Lakshadweep got the third place with 0.003 points.
- In this category, Dadar and Nagar Haveli (-0.69), Andaman, Jammu and Kashmir (-0.50) and Nicobar (-0.30) got the last three positions.

Defence: MALABAR-20

Relevance IN – Prelims (about the Exercise Malabar + its location)

What's the NEWS

- The 24th edition of the MALABAR naval exercise is scheduled in two phases in November 2020.
- Phase 1 of the Exercise MALABAR 20 involving participation by Indian Navy (IN), United States Navy (USN), Japan Maritime Self Defence Force (JMSDF), and Royal Australian Navy (RAN) is set to commence off Visakhapatnam in Bay of Bengal from 03 to 06 November 2020.



Know! all about MALABAR

- MALABAR series of maritime exercises commenced in 1992 as a bilateral IN-USN exercise. JMSDF joined MALABAR in 2015.
- The 2020 edition will now witness participation of the RAN in this joint maritime exercise.
- Phase-1 of MALABAR 20 will witness participation of Indian Navy units with United States Ship (USS) *John S McCain* (Guided-missile destroyer), Her Majesty's Australian Ship (HMAS) *Ballarat* (long range frigates) with integral MH-60 helicopter, and Japan Maritime Self Defence Ship (JMSDF) *Onami* (Destroyer) with integral SH-60 helicopter.
- Indian Navy units participating in the exercise include destroyer *Ranvijay*, frigate *Shivalik*, Off Shore Patrol Vessel *Sukanya*, Fleet Support Ship *Shakti* and submarine *Sindhuraj*.
- In addition, Advanced Jet Trainer *Hawk*, long-range maritime patrol aircraft *P-8I*, *Dornier* maritime patrol aircraft, and helicopters will also be participating in the exercise.
- The exercise, being conducted as a 'non-contact, at sea only' exercise in view of COVID-19 pandemic
- MALABAR 20 Phase 1 would witness complex and advanced naval exercises including surface, anti-submarine and anti-air warfare operations, cross deck flying, seamanship evolutions and weapon firing exercises.
- Phase 2 of MALABAR 20 is scheduled to be conducted in the Arabian Sea in mid-November 2020.

Defence: Mission Sagar - II

Relevance IN – Prelims (about Mission Sagar)

What's the NEWS

- As part of 'Mission Sagar-II', Indian Naval Ship Airavat entered Port Sudan on 02 November 2020.
- The Government of India is providing assistance to Friendly Foreign Countries to overcome natural calamities and COVID-19 pandemic, and towards the same INS Airavat is carrying a consignment of 100 Tonnes of food aid for the people of Sudan.

Know! about Mission Sagar – II

- Mission Sagar-II, follows the first 'Mission Sagar' undertaken in May-June 2020, wherein India reached out to Maldives, Mauritius, Seychelles, Madagascar and Comoros, and provided food aid and medicines. As part of Mission Sagar-II, Indian Naval Ship Airavat will deliver food aid to Sudan, South Sudan, Djibouti and Eritrea.
- Mission Sagar-II, is in line with the Prime Minister's vision of Security and Growth for All in the Region 'SAGAR' and highlights the importance accorded by India to relations with her maritime neighbours and further strengthens the existing bond.
- The Indian Navy is progressing this mission in close coordination with the Ministries of Defence and External Affairs, and other agencies of the Government of India.

Prelims Factoids: NFL registers steep growth in sale of single super phosphate and Bentonite Sulphur

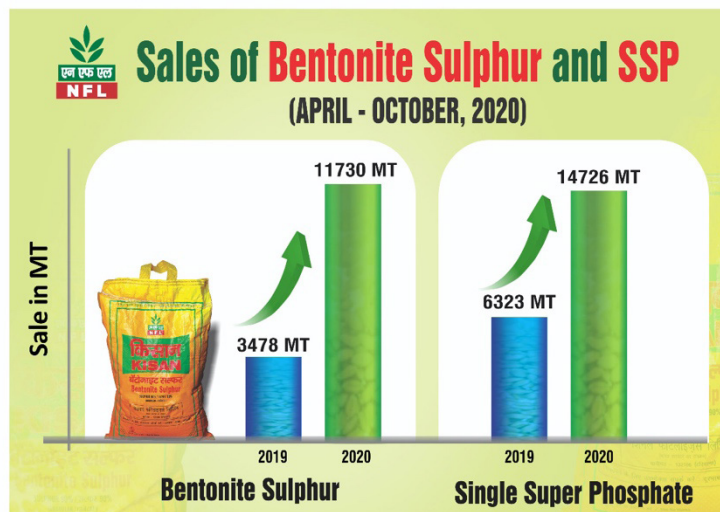
Relevance IN – Prelims (about non urea fertilizers and its benefits)

What's the NEWS

- National Fertilizers Limited (NFL) is encouraging farmers to also use non-urea fertilizers like DAP, MoP, NPK and Sulphur Based fertilizers.
- With these efforts, the company has registered growth in sale of all non-urea fertilizers during the first seven months of the current financial year.
- The sale of sulphur based fertilizers of company - Bentonite Sulphur has registered a growth of 237% and single super phosphate (SSP) has registered growth of 133%
- NFL markets Urea, DAP, MoP, NPKs, APS, Compost, SSP and Bentonite Sulphur besides many strains of bio-fertilizers to provide all types of fertilizers to farmers

Benefits of using non-urea fertilizers

- It is important to encourage use of all types of fertilizers to provide balanced nutrition to soil
- Sulphur is essential to maximizing plant growth and yield.
- As the fourth most important nutrient, Sulphur is also required for nitrogen use efficiency.
- After the Nitrogen (N), Phosphorus (P) and Potash (K), Sulphur (S) is the 4th major plant nutrient required and deficiency of sulphur is widespread in Indian Soils.
- It is required for crops like Oilseeds, Pulses, Vegetables, Sugarcane, Paddy, Horticulture crops etc.
- Sulphur is replenished in soil mainly through Bentonite Sulphur and SSP.
- While Bentonite Sulphur contains 90% Sulphur, SSP contains 11% sulphur, 16% P₂O₅ and 21% Calcium.



Prelims Factoids: Shri Shakti Challenge

Relevance IN – Prelims (about Shri Shakti Challenge)

What's the NEWS

- Six women led startups have won COVID-19 Shri Shakti Challenge organized by MyGov in collaboration with UN Women.

Know! about the challenge

- With an objective to encourage and involve women led startups to come up with innovative solutions that can help in the fight against COVID19 or solve problems that impact a large number of women, MyGov in collaboration with UN Women, launched the COVID-19 Shri Shakti Challenge in April 2020.



- This was a unique challenge hosted on the Innovate platform of MyGov that called for applications from women led startups as well as startups who have solutions that address issues faced by a larger number of women.
- The Challenge was implemented in two stages: Ideation stage and Proof of Concept (PoC) Stage.

Prelims Factoids: Ganga Utsav



Relevance IN – Prelims (about Ganga Utsav)

What's the NEWS

- Ganga Utsav is a 3 – day festival celebrating river Ganga.
- The National Mission for Clean Ganga (NMCG) had been celebrating the day of declaration of river Ganga as 'National River' on 4th November of every year with an objective to promote stakeholder engagement and ensure public participation under aegis of **Ganga Knowledge Center**.

Know! about the Utsav

- The utsav celebrates mystical and cultural river Ganga through storytelling, folklores, dialogues with eminent personalities, quizzes, displaying traditional artforms, dance & music performance by renowned artists, photo galleries and exhibitions and much more.
- Celebrating the glory of holy river Ganga, this year the utsav will also appreciate living & practised cultural richness along river Ganga.

Know! about NMCG

- National Mission for Clean Ganga (NMCG) - NMCG, an Authority constituted under the provisions of the Environment (Protection) Act, 1986 is engaged in implementing the 'Namami Gange Programme', which is an Integrated Conservation Mission, approved as 'Flagship Programme' by the Union Government in June 2014 to accomplish the objectives of effective abatement of pollution, conservation, and rejuvenation of the National River Ganga.

Defence: Enhanced version of PINAKA Rocket System successfully Flight Tested

Relevance IN – Prelims (about Enhanced Pinaka system + about Pinaka system)

What's the NEWS

- Enhanced PINAKA rocket, developed by Defence Research and Development Organisation (DRDO) has been successfully flight tested from Integrated Test Range, Chandipur off the coast of Odisha

Know! about Enhanced Pinaka system

- Development of Enhanced Pinaka system was taken up to achieve longer range performance compared to earlier design with reduced length.
- The design and development has been carried out by Pune based DRDO laboratories, namely Armament Research and Development Establishment, ARDE and High Energy Materials Research Laboratory, HEMRL.

- A total of six rockets were launched in quick succession and the tests met complete mission objectives.
- All the flight articles were tracked by Range instruments such as telemetry, radar and Electro Optical Tracking Systems which confirmed the flight performance.
- Enhanced version of the Pinaka rocket would replace the existing Pinaka Mk-I rockets which are currently under production.

Know! about Pinaka

- Pinaka is a multiple rocket launcher produced in India and developed by the Defence Research and Development Organisation (DRDO) for the Indian Army.
- The Pinaka, a multi-barrel rocket-launcher (MBRL) system named after Shiva's bow, can fire a salvo of 12 rockets over a period of 44 seconds.
- One battery of Pinaka system consists of six launch vehicles, accompanied by loader systems, radar and links with network-based systems and a command post. The system is mounted on a Tatra truck for mobility.
- The development of the Pinaka multi-barrel rocket systems was started by the DRDO in the late 1980s, as an alternative to the Multi Barrel Rocket Launcher systems of Russian make called like the 'Grad', which are still used by some regiments.
- After successful tests of Pinaka Mark-1 in the late 1990, it was first used successfully in the battlefield during the 1999 Kargil War.
- While the Mark-1 has a range of 38 km, the enhanced version of Mark-1 tested on Wednesday has a range of 45 km and some key additional features.
- DRDO has also developed and successfully tested the Mk-II and guided variants of the Pinaka, which has a range of around 60 km, while the Guided Pinaka system has a range of 75 km and has integrated navigation, control and guidance system to improve the end accuracy and enhance the range.
- The navigation system of Guided Pinaka missile is also aided by the Indian Regional Navigation Satellite System (IRNSS).
- A total of six rockets were launched in quick succession and the tests met complete mission objectives.



DRDO @DRDO_India · 2h

Enhanced version of PINAKA Rocket System, developed by Defence Research and Development Organisation (DRDO) has been successfully flight tested from Integrated Test Range, Chandipur off the coast of Odisha today on 04 November 2020.



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4.4K



DRDO @DRDO_India · 2h

A total of 06 rockets were launched in quick succession and the tests met complete mission objectives. Enhanced version of PINAKA rocket would replace the existing Pinaka Mk-I rockets which are currently under production.

Prelims Factoids: Luhri Stage-I Hydro Power Project

Relevance IN – Prelims (about Luhri Stage-I Hydro Electric Project -location)

What's the NEWS

- The Cabinet Committee on Economic Affairs chaired by Prime Minister has approved the investment of Rs.1810.56 crore for 210 MW Luhri Stage-I Hydro Electric Project located on river Satluj which is **situated in Shimla & Kullu districts of Himachal Pradesh**. This project will generate 758.20 million units of electricity annually.

Luhri Stage-I Hydro Electric Project

- This project is being implemented by Satluj Jal Vidyut Nigam Limited (SJVN) on Build-Own-Operate-Maintain (BOOM) basis with active support from Government of India and State Government.
- Government of India is also supporting this project by providing grants of Rs. 66.19 crore for enabling infrastructure which has helped in reducing in power tariff.



- The Luhri Stage-I Hydro Electric Project shall be commissioned within a span of 62 months.
- The power generated from the Project will help in providing Grid stability and will improve the power supply position.
- SJVN has forayed into the fields of Renewable Energy, Power Transmission and Thermal power generation. It has envisaged Internal Growth Targets of total installed capacity from all sources of 5000 MW by 2023, 12000 MW by 2030 and 25000 MW by year 2040.



Miscellaneous: Fourth edition of India Mobile Congress 2020



Relevance IN – Prelims (about IMC 2020 + about COAT)

What's the NEWS

- Minister of State for Communications, Education and Electronics & Information Technology, announced the fourth edition of the India Mobile Congress (IMC) 2020
- The IMC 2020 is scheduled for 8th-10th December, and will be held virtually this year given the ongoing pandemic.

Know! about India Mobile Congress (IMC) 2020

- This prestigious event, jointly organized by the Department of Telecommunications (DoT) and Cellular Operators Association of India (COAI)
- It will see 50+ participating countries, 110 + Global Speakers, Start-ups, with over 15000 expected visitors over the three day programme.
- This year IMC's theme is going to be - "Inclusive Innovation - Smart I Secure I Sustainable".
- IMC 2020 would aim to promote Atmanirbhar Bharat (Make In India - local manufacturing and to push for 'Make for World'), foster international regional cooperation, **inspire Satat Bharat — Sanatan Bharat** (Digital inclusivity in connecting nearly 6 lakh villages with optical fiber and sustainable development), promote **Samagra Bharat - Saksham Bharat (entrepreneurship & innovation)**, drive foreign and local investments, encourage R&D in the Telecom and Emerging Technology sectors and to facilitate supportive regulatory & policy frameworks.

Know! more about IMC

- It is considered as the largest Digital Technology Forum in Asia
- IMC has established itself as a leading platform for bringing together the industry, Government, academia, and other ecosystem players to discuss, deliberate and display the latest industry technology trends around

major themes such as SG, Artificial Intelligence (AI), Internet of things (IoT), Data Analytics, Cloud and Edge Computing, Open source tech, data privacy and cyber security, Smart Cities and automation.

- India Mobile Congress is one such platform, where the efforts of the Indian Government and the Telecom Industry are given an apt showcase to not just our nation, but to the world at large.

Cellular Operators Association of India (COAI)

- COAI was constituted in 1995 as a registered, non-governmental society.
- COAI's vision is to establish India as the global leader of mobile communications infrastructure, products and services and achieving a national tele density of 100 per cent, including broadband.
- The association is also dedicated to the advancement of modern communication and towards delivering the benefits of innovative and affordable mobile communication services to the people of India.

Miscellaneous: DRDO Developed Fire Detection and Suppression System (FDSS) for Passenger Buses

Relevance IN – Prelims (about FDSS and CFEES)

What's the NEWS

- Raksha Mantri witnessed the demonstration of **Fire Detection and Suppression System (FDSS)** developed by DRDO for Passenger Buses at DRDO Bhawan
- Demonstrations were given on Water Mist Based FDSS for Passenger Compartment and Aerosol Based FDSS for engine fire.

Fire Detection and Suppression System (FDSS)

- DRDO's Centre for Fire Explosive and Environment Safety (CFEES), Delhi has developed the technology, which **can detect the fire in passenger compartment in less than 30 sec** and then suppresses it in 60 sec thereby reducing the risk to life and property to a significant extent.
- **The FDSS for passenger compartment** comprises of a water tank of 80 litre capacity, a 6.8 kg nitrogen cylinder pressurized to 200 bar installed at appropriate location in the bus and a network of tubing with 16 number of atomizers inside the passenger compartment.
- **The FDSS for engine** comprises of aerosol generator with which the fire suppression could be achieved within 5 sec of the system activation.

Centre for Fire Explosive and Environment Safety (CFEES)

- CFEES has unique competency in the areas of fire risk assessment, fire suppression using different extinguishing mediums, modelling and simulation.
- They have developed system for Battle tanks, ships and submarines.
- The active fire protection system has been developed by CFEES as a defence spin-off technology for providing a solution to the fire incidents in passenger buses.

Science & Technology: Saffron bowl of India extends to the North East

Relevance IN – Prelims (about saffron + geographical locations)

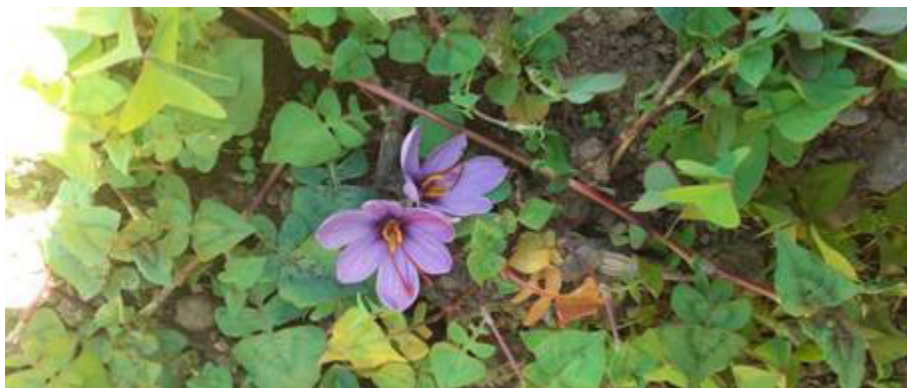
What's the NEWS

- The saffron bowl, which was so far confined to Kashmir, **may soon expand to the North East of India.**
- Plants from seeds transported from Kashmir to Sikkim and acclimatized there are now flowering in **Yangyang** in the Southern part of the North-East state.

Know! about the saffron production in India

- Saffron production has long been restricted to a limited geographical area in the Union territory of Jammu & Kashmir.
- Pampore region, in India, commonly known as Saffron bowl of Kashmir, is the main contributor to saffron production, followed by Budgam, Srinagar, and Kishtwar districts.
- Saffron has traditionally been associated with the famous Kashmiri cuisine.

- It's its medicinal values were considered as part of the rich cultural heritage of Kashmir.
- As saffron growing was confined to very specific areas in Kashmir, its production remained limited.
- Though the **National Mission on Saffron** focused on several measures to improve its farming, the measures were still limited to the specified areas of Kashmir.



- **North East Centre For Technology Application and Reach (NECTAR)**, an autonomous body under the Department of Science & Technology, Government of India supported a pilot project to explore the feasibility of growing saffron in North East region of India, with the same quality and higher quantity.
- **The Botany and Horticulture department of Sikkim Central University** carried out tests to understand the soil and actual pH conditions of Yangyang of Sikkim and found it comparable to saffron growing places of Kashmir.
- The matching of climatic and geographical conditions between Pampore (Kashmir) and Yangyang (Sikkim) led to the successful sample farming of Saffron in Yangyang.

Prelims Factoids: Antiquities/ Coins of Ancient and Medieval Period confiscated

Relevance IN – Prelims (about the confiscated coins)

What's the NEWS

- Union Finance Minister Smt. handed over confiscated ancient and medieval period Antiquities/ Coins to the tourism Ministry

Know! more about the confiscated coins

- The 40,282 confiscated coins belong to the **Sultanate and Mughal era from the period 1206 to 1720 AD, Princely states** such as Kushana, Yaudheya, Guptas, Pratihars, Cholas, Rajputs, Mughals, Marathas, Kashmir and also British India, French and certain Australian coins from the period 1800-1900 AD.
- The confiscated items also cover 18 antique seal/stamp/religious emblem to be worn by the person having authority by Ruler to execute the Royal orders and 1 Silver Kamarband (waist band) to be worn by Royal/affluent family women.
- Indian Customs requested Archaeological Survey of India to ascertain the value of these confiscated antiquities/ articles and a committee was formed for valuing these items.
- The committee submitted its report in January/June 2020 and the value of 40,301 antique items was ascertained at Rs. 63.90 crore. Further, in terms of Para 17.9 of the Disposal Manual, 2019 issued by CBIC these confiscated items are being handed over to Archaeological Survey of India by the Department.



Prelims Factoids: Ayurveda Day

Relevance IN – Prelims (about Ayurveda Day)

What's the NEWS

- Prime Minister extended greetings to the nation on the occasion of Ayurveda Day

Know! about Ayurveda Day

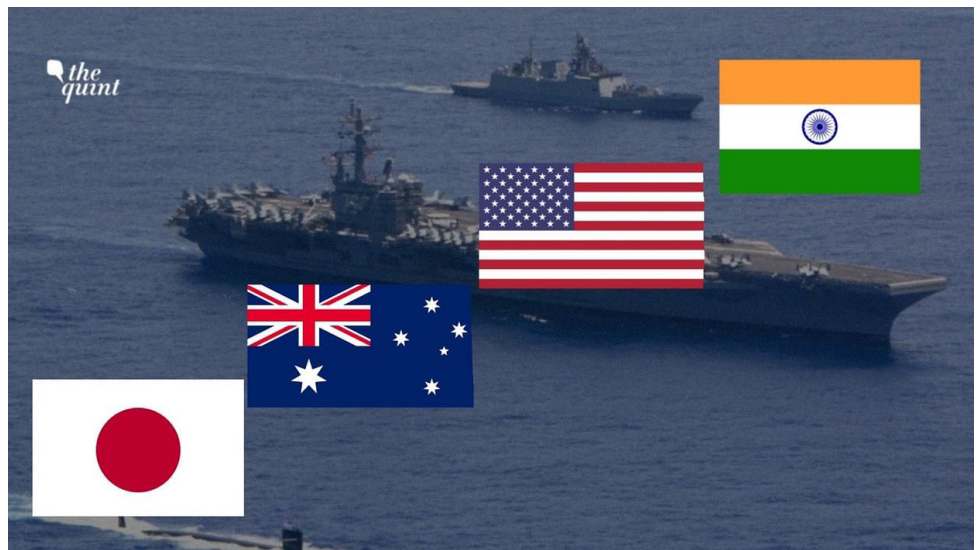
- The PM inaugurated the Institute of Teaching and Research in Ayurveda (ITRA) at Jamnagar in Gujarat and National Institute of Ayurveda (NIA) at Jaipur in Rajasthan
- This year's celebration will focus on the potential role of Ayurveda in the management of the Covid-19 pandemic.
- These institutions are expected to play "global leadership roles" in the growth and development of Ayurveda in the 21st century, the statement added.
- This year's celebration will focus on the potential role of Ayurveda in the management of the Covid-19 pandemic.
- The nation has been celebrating Ayurveda Day on November 13 since 2016 to **commemorate Dhanwantri**, revered as a god of the traditional Indian medicine.

Defence: Phase 2 of Exercise MALABAR 2020 in Western Indian Ocean

Relevance IN – Prelims (about the exercise MALABAR 2020)

What's the NEWS

- The second phase of Exercise Malabar 2020 will be conducted in the Northern Arabian Sea from 17 to 20 November 2020.
- The Phase 1 of Exercise Malabar 2020, was conducted in the Bay of Bengal from 03 to 06 November 2020,
- The second phase will involve coordinated operations of increasing complexity between the navies of Australia, India, Japan and the United States.



Second phase of Exercise Malabar 2020

- Phase 2 of Exercise MALABAR 2020 will witness joint operations, centered around the *Vikramaditya* Carrier Battle Group of the Indian Navy and *Nimitz* Carrier Strike Group of the US Navy.
- These exercises include cross-deck flying operations and advanced air defence exercises by MIG 29K fighters of *Vikramaditya* and F-18 fighters and E2C Hawkeye from *Nimitz*.
- US Navy's Strike Carrier *Nimitz* will be accompanied by cruiser *Princeton* and destroyer *Sterett* in addition to P8A maritime reconnaissance aircraft.
- The Royal Australian Navy will be represented by frigate *Ballarat* along with its integral helicopter. JMSDF will also participate in the exercise.

Know! about the Malabar Exercise

- The Malabar series of exercises, which began as an annual bilateral naval exercise between India and the US in 1992, has seen increasing scope and complexity over the years.
- The 24th edition of MALABAR, which is being presently undertaken, highlights enhanced convergence of views amongst the four vibrant democracies on maritime issues, and showcases their commitment to an open, inclusive Indo-Pacific and a rules-based international order.

Health: Vaccine Derived Polio Virus

Relevance IN – Prelims (about Emergency Use Listing + Type 2 vaccine derived polio)

What's the NEWS

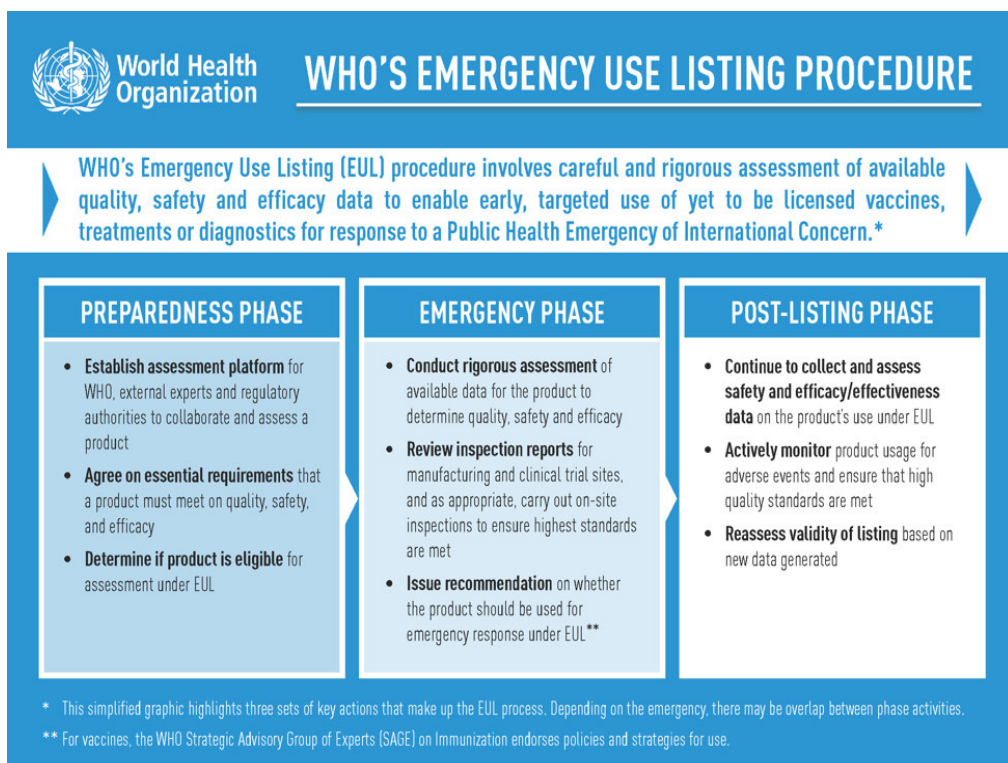
- The World Health Organisation has added a vaccine to its Emergency Use Listings.
- The vaccine added is the nCOP2 developed by Bio Farma of Indonesia.
- **The vaccine has been developed to treat derived polio virus strain.**

Know! about Emergency Use Listing

- WHO publishes Emergency Use Listing procedure and roadmap to make new medical products more readily available during health emergencies
- WHO published the Emergency Use Listing (EUL) procedure to streamline the process by which new or unlicensed products can be used during public health emergencies.
- The EUL replaces the Emergency Use Assessment and Listing (EUAL) procedure, which was used during the West Africa Ebola outbreak of 2014-2016.
- The EUL concerns three product streams (vaccines, therapeutics and in vitro diagnostics), each of which has specific requirements for products to be eligible for evaluation under the EUL procedure.

Know! about Type 2 vaccine derived polio

- Novel oral polio vaccine type 2 is expected to become a key tool in addressing type-2 vaccine derived polio and could significantly impact on progress in polio eradication.
- Type 2 vaccine derived polio is currently affecting a number of countries, notably in Africa but also in some parts of the Middle East and Asia (including Somalia, Pakistan and the Philippines).
- Over the past five years, a total of 423 cases have been detected in 19 countries.
- It occurs when routine immunization coverage is low or when supplementary immunization activities are poorly conducted and not enough children are reached with the vaccine.
- As a result, a population is left under-immunized and the vaccine virus is able to circulate among unvaccinated children and undergo genetic changes.
- Hence, the main risk factor is low vaccination coverage. A fully immunized population is protected against both vaccine-derived and wild polioviruses.
- The best measure against vaccine-derived poliovirus is to ensure high-quality outbreak response. If a population is fully immunized against polio, it will be protected against both wild polio and vaccine-derived polio.
- One of the key actions to address the current vaccine-derived polio emergency is to roll out the novel OPV type 2 (nOPV2).
- The vaccine is currently in Phase II clinical trials. With the streamlining of the WHO emergency use procedure and the roadmap published today, access to the vaccine could become possible as early as the second quarter of 2020.



Defence: Navy's Scorpene class submarine Vagir with superior stealth features launched

Relevance IN – Prelims (about Scorpene class submarine Vagir + about Project 17)

What's the NEWS

- Indian Navy's fifth Scorpene class submarine Vagir, having superior stealth features like the advanced acoustic absorption technique, was launched at the Mazagon Dock in south Mumbai.
- Vagir is part of the six Kalvari-class submarines being built in India.
- The submarines, designed by French naval defence and energy company DCNS, are being built as part of Indian Navy's Project-75.



Know! more about these submarines

- These submarines can undertake missions like anti-surface warfare, anti-submarine warfare, intelligence gathering, mine laying, and area surveillance
- Vagir is named after the Sand Fish, a deadly deep sea predator of the Indian Ocean.
- The first Vagir, a submarine from Russia, was commissioned into the Indian Navy on December 3, 1973, and was decommissioned on June 7, 2001 after almost three decades of service to the nation.
- The state-of-art technology used in the submarine has ensured superior stealth features such as advanced acoustic absorption techniques, low radiated noise levels, and hydro-dynamically optimised shape and also the ability to attack the enemy using precision guided weapons
- The attack can be launched with both torpedoes and tube launched anti-ship missiles, whilst underwater or on surface

Know! about Project-75

- Two submarines of the ongoing Project-75 Scorpene programme at MDL, Kalvari and Khanderi, have been commissioned into the Indian Navy.
- The third submarine, Karanj, is in the last phase of rigorous sea trials.
- The fourth Scorpene, Vela, has commenced her sea trials, whilst the sixth and last submarine, Vagsheer, is being readied for boot together.

Prelims Factoids: 3rd Annual Bloomberg New Economy Forum

Relevance IN – Prelims (about Bloomberg New Economy Forum)

What's the NEWS

- Prime Minister Shri Narendra Modi delivers an address at the 3rd Annual Bloomberg New Economy Forum on 17th November 2020

Bloomberg New Economy Forum

- The Bloomberg New Economy Forum was established in 2018 by Mr. Michael Bloomberg.
- It seeks to build a community of leaders to engage in real conversations leading to actionable solutions about the critical challenges facing a world economy in the throes of a historic transition.
- The inaugural Forum was held in Singapore, and the second annual Forum was hosted in Beijing.
- These covered a range of topics, including global economic management, trade and investment, technology, urbanization, capital markets, climate change, and inclusion.

Defence: Second Successful Flight Test of QRSAM System

Relevance IN – Prelims (about QRSAM)

What's the NEWS

- In yet another flight test, the Quick Reaction Surface to Air Missile (QRSAM) System tracked the target accurately and successfully neutralised the airborne target.

Know! more about the flight test

- The flight test, second in the series was conducted from the Integrated Test Range, Chandipur, off the coast of Odisha.
- The test was carried out once again, against the high performance Jet Unmanned Aerial Target called Banshee, which simulates an aircraft.
- The Radars acquired the target from a long range and tracked it till the mission computer automatically launched the missile.
- Continuous guidance was provided through Radar data link. Missile entered the terminal active homing guidance and reached the target close enough for proximity operation of warhead activation.
- The flight test was conducted in the deployment configuration of the weapon system comprising of Launcher, fully Automated Command and Control System, Surveillance System and Multi Function Radars.



QRSAM weapon system

- The QRSAM weapon system, which can operate on the move, consists of all indigenously developed subsystems. All objectives of the test were fully met. The launch was carried out in the presence of the users from Indian Army.
- A number of range instruments like Radar, Telemetry and Electro Optical Sensors were deployed which captured the complete flight data and verified the performance of the missile.
- The first in the series test of QRSAM took place on 13th Nov 2020 achieving the milestone of a direct hit. Second test proved the performance parameters of warhead.

International: US officially withdraws from Open Skies transparency pact

Relevance IN – Prelims (about Open Skies treaty)

What's the NEWS

- ***The US has exited the Open Skies treaty, which allows countries to observe one another's militaries.***
- Six months after US President Donald Trump announced his administration's decision to withdraw from the Open Skies accord
- The treaty provides for inspection flights over member countries' territories to monitor military activities.
- US officials claim that Russia violated the Open Skies treaty by blocking surveillance flights around certain areas, including the Russian enclave of Kaliningrad and the border with Georgia.

Know! about the Treaty on Open Skies

- The Treaty on Open Skies was signed in March 1992 in Helsinki by 23 member nations of the Organization for Security and Cooperation in Europe (OSCE).
- It now has 33 members, with Russia ratifying it on May 26, 2001.
- In 2017, the Trump administration imposed certain restrictions on Russian observation flights above its territory, after which the Russian government announced similar measures for the US.
- President Trump pulled out the US from several international treaties, including the 2016 Trans-Pacific Partnership agreement, and the 2015 Paris Climate Change deal.

Miscellaneous: India to launch deep sea mission

Relevance IN – Prelims (about Deep Ocean Mission + about PMS)

What's the NEWS

- The Ministry of Earth Sciences will soon launch an ambitious 'Deep Ocean Mission' that envisages exploration of minerals, energy and marine diversity of the underwater world
- The mission, which is expected to cost over Rs 4,000 crore, will give a boost to efforts to explore India's vast Exclusive Economic Zone and Continental Shelf
- The mission will also involve developing technologies for different deep ocean initiatives.

Deep Ocean Mission

- The multi-disciplinary work will be piloted by the MoES and other government departments like the Defence Research and Development Organisation, Department of Biotechnology, Indian Space Research Organisation (ISRO), Council for Scientific and Industrial Research (CSIR) will be stakeholders in this mission
- Some of the technologies involved will be developed by organisations such as the ISRO and DRDO.
- One of the main aspects of the mission will be design, development and demonstration of human submersibles
- Another aspect is exploring the possibility of deep sea mining and developing necessary technologies
- The move strategically significant as it will enhance India's presence in the Indian Ocean where other players like China, Korea and Germany are active.
- India has been ear-marked nearly 1.5 lakh square kilometres of area in the central Indian Ocean for exploration.
- The mission will also involve procurement of more advanced deep sea vessels for explorations. The existing vessel Sagar Kanya is nearly three-and-half decades old.
- In September 2016, India signed a 15-year contract with the International Seabed Authority (ISA) for exploration of Poly-Metallic Sulphides (PMS) in the Indian Ocean.
- The ISA is an institution set up under the Convention on Law of the Sea to which India is a Party.
- The 15-year contract formalised India's exclusive rights for exploration of PMS in the allotted area in the Indian Ocean.
- The ISA earlier approved 10,000 sq. km for India with a 15-year PMS exploration plan along the Central Indian Ridge (CIR) and Southwest Indian Ridge (SWIR) region of the Indian Ocean.

Poly-Metallic Sulphides (PMS)

- Poly-Metallic Sulphides (PMS), which contain iron, copper, zinc, silver, gold, platinum in variable constitutions, are precipitates of hot fluids from upwelling hot magma from deep interior of the oceanic crust, discharged through mineralized chimneys.
- PMS in the Ocean Ridges have attracted worldwide attention for their long term commercial as well as strategic values.

DEEP OCEAN MISSION

➤ Deep Sea Mining through 'Underwater Vehicles' and 'Underwater Robotics'

➤ Asserting exclusive rights to explore polymetallic nodules from seabed over **75,000 sq km of areas in international water**

➤ Estimated polymetallic nodules resource potential: **380 million tonnes (MT)**

➤ Development of ocean climate change advisory services

➤ Technology for sustainable utilisation of marine bio-resources

THESE POLYMETALLIC NODULES CONTAIN

Manganese **92.6 MT**

Nickel **4.7**

Copper **4.3**

Cobalt **1**

(*figures are rounded off)

➤ Deep ocean survey and exploration

➤ Energy from the ocean and offshore-based desalination

➤ Krill fishery from southern ocean

Prelims Factoids: Abhayam app

Relevance IN – Prelims (about Abhyam app)

What's the NEWS

- Andhra Pradesh Chief Minister launched the 'Abhayam' app designed for safe and secure travel for women commuting by autos and taxis.

Know! more about the app

- The app aims at providing emergency help to those in distress and instills confidence among women, especially those traveling alone.
- The app is brought not because of lack of trust in auto, taxi drivers, but to build confidence among women passengers of safe travel in those vehicles.
- Like Ola, Uber, even our local autos and taxis offer a much safer transport, and women need not fear to board these vehicles
- The first Internet of Things (IoT)-based women safety project aims to bring one lakh autos under the Abhayam initiative.
- Five thousand vehicles will be equipped with tracking and IoT devices by February 1; 50,000 vehicles by July 1 and reach one lakh target by November 2021.
- IoT devices were installed in 1,000 autos in Visakhapatnam as a pilot project and will be introduced soon in Vijayawada and Tirupati.
- Women travelling by autos and taxis need to install the Abhayam application on their mobile.
- The QR code affixed on the vehicle should be scanned before boarding the vehicle. With this, the driver's photo and vehicle details will load on the mobile.
- If a woman encounters any difficulty during her journey, she can send the relevant vehicle number to the police from the mobile app and the whereabouts of the vehicle are tracked through the GPS.
- Passengers who do not have a smartphone can press the panic button on the IoT device fixed to the vehicle and the information is sent to the Command Control Centre. This would make the vehicle stop immediately and alert the nearest police station.
- The AP police department had earlier brought the Disha app, for women safety and Abhayam is developed by the transport department on the same lines.



Geophysical phenomena: Cyclone Nivar

Relevance IN – Prelims (about Cyclone Nivar + about the naming of the cyclone)

What's the NEWS

- Tamil Nadu and Puducherry are on high alert with Cyclone Nivar expected to make landfall on November 25 afternoon between Karaikal and Mamallapuram.
- The cyclone is very likely to intensify into a cyclonic storm in the next 12 hours and into a severe cyclonic storm in the subsequent 12 hours with a speed of 100-110 kmph gusting to 120 kmph.
- The state governments of Tamil Nadu and Puducherry have already taken some steps to reduce the impact of the cyclone on the respective states.

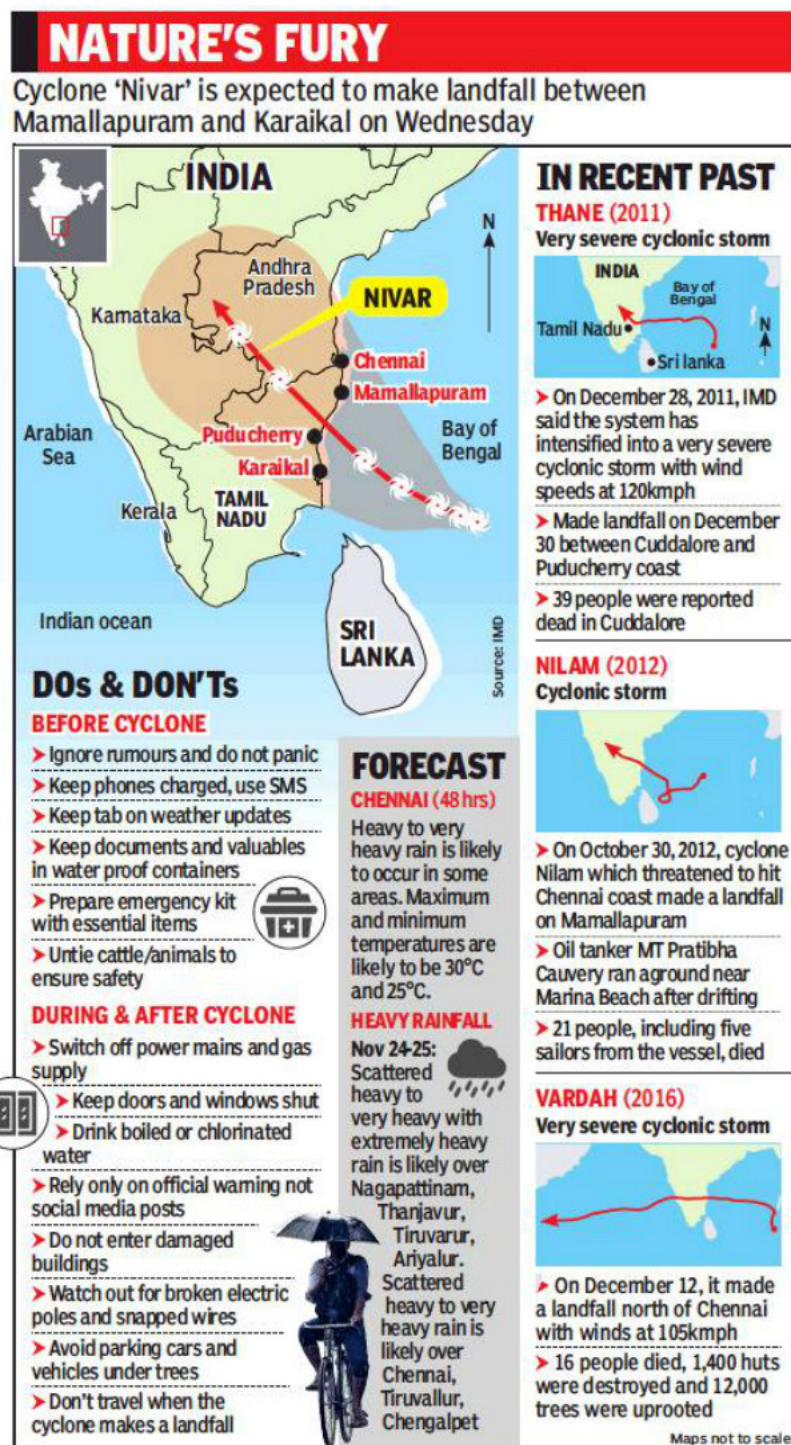
Cyclone Nivar

- Cyclone Nivar will be the fourth cyclone to take shape in the North Indian Ocean region this year.
- The first three cyclones were Cyclone Gati (made landfall in Somalia on November 22), Cyclone Amphan, (eastern India witnessed it in May), and Cyclone Nisarga (in Maharashtra).

- Nivar will be the second cyclone to hit Tamil Nadu in two years after Cyclone Gaja in 2018.
- According to the meteorological department, a deep depression over the Bay of Bengal will turn into a severe cyclonic storm and hit the coasts of Tamil Nadu and Puducherry on November 25.
- The cyclone will cause extremely heavy rains, strong winds with speeds up to 120 kmph.

Know! about the naming of the cyclone

- The storm has been named Cyclone Nivar, based on the guidelines of the World Meteorological Organisation (WMO).
- According to WMO guidelines, countries in every region are supposed to give names for cyclones.
- North Indian Ocean Region covers tropical cyclones formed over Bay of Bengal and Arabian Sea. The 13 members, which come under the region, are Bangladesh, India, Maldives, Myanmar, Oman, Pakistan, Sri Lanka and Thailand.
- In 2018, five more countries were added. These are Iran, Qatar, Saudi Arabia, the UAE and Yemen.
- A total of 169 cyclones were named by these countries for this year, with 13 names from each country. Every member's name is listed in alphabetical order and the cyclone names are used sequentially column-wise.
- Cyclones are named to make their identification easier. It is also believed that names like these make it easier for the media to report and generates interest from the people, resulting in easier dissemination of information and increased preparedness.
- The name Nisarga was given by Bangladesh, Gati was taken from India's suggested names. Nivara has been selected from the list of names given by Iran.



Prelims Factoids: India's first moss garden

Relevance IN – Prelims (about India's first moss garden)

What's the NEWS

- **India** recently got its **first moss garden** inaugurated at Kumaon's Nainital district.
- Spread across an area of around 10 ha, it has been developed by the research wing of the state's forest department.

- The idea to develop the garden came about so that people are made aware of its significance in the environment
- Approved in July 2019 under the CAMPA (State Compensatory Afforestation Fund Management and Planning Authority) scheme by the **Research Advisory Committee of Uttarakhand Forest Department**, the moss garden was inaugurated by Ramon Magsaysay awardee and water conservation activist Rajendra Singh.

Know! all about the garden

- It is a great initiative to mend relationships between man and nature.
- The idea to develop the garden came about so that the various species of moss and other bryophytes are conserved and people are made aware of its significance in the environment, besides also creating a recreation centre for tourists
- It is being said the garden is home to around 30 different species of moss and various other bryophytes.
- *Brachythecium buchananii* and *hyophila involuta* (also known as cement moss) are two moss species that feature in the International Union for Conservation of Nature's (IUCN) red list.
- A moss trail of 1.2 km has also been set up here, on which guests can read about the various moss species, any scientific information on them, etc.

Know! about Mosses

- **Mosses** are a phylum of non-vascular plants. They produce spores for reproduction instead of seeds and don't grow flowers, wood or true roots.
- Instead of roots, all species of **moss** have rhizoids. The **mosses** sit within a division of plants called the Bryophyta under the sub-division Musci
- Mosses have spread all around the world and are found in wet environments such as rainforests, wetlands and alpine ecosystems.
- They are also common in urban areas with a wet climate and often establish on driveways, sidewalks, brick walls and other man-made structures.
- Mosses require water to reproduce which is why they struggle to survive in drier climates.

Defence: Army successfully launches BrahMos supersonic cruise missile

Relevance IN – Prelims (all about BrahMos missiles and its updates)

What's the NEWS

- The Indian Army successfully launched BrahMos, a supersonic land attack cruise missile, at Car Nicobar Islands in a "top-attack" configuration, hitting a target in Bay Bengal.

Know! about the recent launch

- The land attack version of BrahMos, with capability of cruising at 2.8 Mach speed, is the cutting edge of the Indian Army since 2007.
- The present Block III version of the missile has successfully executed four operational launches in the past.
- With the upgraded capability, the missile can hit targets at a range of up to 400 kilometer with precision.
- The launch marks the achievement of a critical milestone in enhancing India's capability of engaging enemy's vitally important targets in depth areas.



- The launch is said to be the first in a series of various versions of the missile in the coming days, in a display of India's tactical cruise missile triad.
- The test by the Army comes over a month after the Naval version of BrahMos was successfully test fired from Indian Navy's indigenously-built stealth destroyer INS Chennai, hitting a target in the Arabian Sea.
- More tests of the supersonic cruise missile are slated to be conducted by the Navy and the Indian Air Force in the coming days.
- These tests are a display of India's tactical cruise missile triad — launch capability from land, sea and air platforms

Know! about top-attack and direct attack modes.

- Most modern missiles, including BrahMos, can be fired in both top-attack and direct attack modes.
- In top attack mode, the missile is required to climb sharply after launch, travel at a certain altitude and then plunge on top of the target.
- In direct attack mode, the missile travels at a lower altitude, directly striking the target. The test was conducted from Andaman and Nicobar archipelagos.

BrahMos supersonic cruise missile

- An amalgamation of the names of Brahmaputra and Moskva rivers, BrahMos missiles are designed, developed and produced by BrahMos Aerospace, a joint venture company set up by the Defence Research and Development Organisation (DRDO) and Mashinostroyeniya of Russia.
- Various versions of BrahMos, including those that can be fired from land, warships, submarines and Sukhoi-30 fighter jets, have already been developed and successfully tested in the past.



Science & Technology: IISF-2020

Relevance IN – Prelims (about 6th India International Science Festival)

What's the NEWS

- Several curtain raiser events are being organized for generating awareness about the 6th India International Science Festival (IISF-2020) to be held virtually this year.
- CSIR-IITR, CSIO and IMD organize IISF-2020 Curtain Raiser events to generate awareness
- The theme of IISF 2020: "Science for Self Reliant India and Global Welfare" is expected to deliberate on the role of Science, Technology and Innovation to build an Atmanirbhar Bharat and also provide solutions to global problems

India International Science Festival

- India International Science Festival is a unique combination of seminars, workshops, exhibitions,

discussions and debates with several interactive forms of engagement including hands on demonstrations, dialogues with experts and scientific theatre, music and Poetry.

- This year the festival begins on December 22, 2020 and culminates on December 25, 2020, the birthdays of world renowned Indian Mathematician Srinivas Ramanujan and former Prime Minister of the country Sri Atal Bihari Vajpayee, respectively.

Education: Prasar Bharati signs MoU with Bhaskaracharya National Institute for Space Applications and Geo-Informatics

Relevance IN – Prelims (MoU - highlights + about Bhaskaracharya National Institute for Space Applications and Geo-Informatics)

What's the NEWS

- India's public broadcaster Prasar Bharati entered into a Memorandum of Understanding with Bhaskaracharya National Institute for Space Applications and Geo-Informatics, Ministry of Electronics and Information Technology today.

Know! about the MoU -highlights

- Under the ambit of this MoU, 51 DTH education TV channels comprising of Swayamprabha (22 channels) (M/o Education), e-Vidya for classes 1 to 12 (12 channels) of NCERT, Vande Gujarat (Govt. of Gujarat) (16 channels) and DigiShala under M/o Electronics and IT (1 channel) shall be available as DD co-branded channels to all DD FreeDish viewers.
- This move aims to bring quality educational programmes to every household, including those in rural and remote areas.
- The services will be available free of cost for all the viewers 24x7, in line with Government's commitment towards skill development and providing quality education to the last person in the country.
- This Government initiative will go a long way in achieving Government's goal of providing education to all.

Bhaskaracharya National Institute for Space Applications and Geo-informatics{BISAG}

- It is an Autonomous Scientific Society registered under the Societies Registration Act, 1860 under the MeitY, Government of India to undertake technology development & management, research & development, facilitate National & International cooperation, capacity building and support technology transfer & entrepreneurship development in area of geo-spatial technology.
- BISAG has three main domain areas: Satellite Communication, Geo-informatics and Geo-spatial technology.
- Government has established State-of-the-art infrastructure at BISAG for distance education.

← Digital India - This move aims to bring qu...

Ministry of Electronics & Information Technology
Government of India

प्रसार भारती

Digital India
Power To Empower

Revolutionizing the Education System in Rural and Remote Areas

India's Public Broadcaster Prasar Bharati Signs MoU with Bhaskaracharya National Institute for Space Applications and Geo-Informatics, Ministry of Electronics and IT to Launch **51 DTH Education TV Channels**



Digital India

This move aims to bring quality educational programmes to every household, including those in rural and remote areas. The services will be available free of cost for all the viewers 24x7.

Read more : <https://pib.gov.in/PressReleasePage.aspx?PRID=1670003>

#BISAG

अनुवाद देखें

टाइमलाइन फ़ोटो में श्रेणीबद्ध पेज फ़ोटो · कल को 10:28 पूर्वार्द्ध बजे ·

पूर्ण आकार में देखें · और विकल्प

- At present, this infrastructure is being used to telecast 51 educational DTH TV channels which includes 16 channels under 'VANDE Gujarat' banner Government of Gujarat, 34 channels under 'SWAYAM Prabha' by Ministry of Human Resource Development and 'DigiShala' by MeitY on 24x7 basis.
- BISAG has implemented GIS and geo-spatial technologies for major Ministries and almost all States.
- BISAG ensures the usage of authenticated and relevant datasets for implementation of GIS based decision support system(s).
- BISAG is to support MeitY in reviewing and studying the existing practices in GIS domain across the Government and related sectors.
- It helps the Government to come out with suitable policy on GIS technology for Government usage.
- BISAG helps Ministries/Departments of the Central as well as State Governments to apply geo-spatial technologies in an innovative manner, to improve the effective roll out of e-governance services for the common citizens.

Know! about Geospatial Technology

- It is an emerging field of study that includes Geographic Information System (**GIS**), Remote Sensing (**RS**) and Global Positioning System (**GPS**).
- Geospatial technology enables us to acquire data that is referenced to the earth and use it for analysis, modeling, simulations and visualization.
- Geospatial technology allows us to make informed decisions based on the importance and priority of resources most of which are limited in nature.
- Geospatial technology has become an essential part of everyday life. It's used to track everything from personal fitness to transportation to changes on the surface of the earth.

Prelims Factoids: Ro-Pax ferry service

Relevance IN – Prelims (about the Ro-Pax ferry service – location)

What's the NEWS

- Prime Minister will inaugurate the Ro-Pax terminal at Hazira and flag off Ro-Pax service between **Hazira and Ghogha in Gujarat**

Know! about Ro-Pax Ferry Vessel 'Voyage'

- The Ro-Pax Terminal being inaugurated at Hazira is of 100 meters length and 40 meters width, with cost implications of approx. Rs. 25 crores.
- The terminal has wide ranging facilities including administrative office building, parking area, substation and water tower etc.
- **The Ro-Pax Ferry Vessel 'Voyage Symphony'** is a three decks vessel. It has a load capacity of 30 trucks (of 50 MT each) on the main deck, 100 passenger cars on the upper deck and 500 passengers plus 34 crew & hospitality staff on the passenger deck.

Benefits of the Hazira-Ghogha Ro-Pax ferry service.

- It will work as a Gateway to South Gujarat and Saurashtra region. It will reduce the distance between Ghogha and Hazira from 370 Km to 90 Km.
- The reduced cargo travel time from 10 to 12 hours to about 4 hours will result in huge savings of fuel (approx 9000 litres per day) and lower the maintenance cost of vehicles drastically.
- It will also lead to reduction in CO2 emission by approximately 24 MT per day and net saving of approximately 8653 MT per annum.

Science & Technology: CSIR-SERC, Chennai Develops Indigenous Emergency Retrieval System (ERS) for Power Lines

Relevance IN – Prelims (about Emergency Retrieval System (ERS))

What's the NEWS

- **Council of Scientific and Industrial Research (CSIR) constituent laboratory Structural Engineering Research Centre (SERC) based in Chennai has developed an indigenous technology, Emergency**

Retrieval System (ERS), for quick retrieval of power transmission in the event of failure of transmission line towers.

- CSIR-SERC has signed an agreement for licensing of the ERS technology with M/s Advait Infratech, Ahmedabad.

Know! about ERS systems

- This technological development will enable the manufacturing in India for the first time, which will be an import substitute and will cost about 40% of imported systems.
- ERS has huge market requirement in India as well as in SAARC and African countries. Hence, this technological development is a big leap forward towards Atma Nirbhar Bharat and Make in India.
- ERS is a lightweight modular system that is used as temporary support structure to restore power immediately after the collapse of transmission line towers during natural calamities such as cyclone/earthquake, or manmade disruptions.
- ERS can be assembled quickly at the disaster site for restoration of power in 2-3 days, whereas the permanent restoration may take several weeks.
- This development is very significant as failure of transmission lines severely impact lives of common people and causes huge monetary loss to the power companies.
- As the total losses/damages are directly proportional to the outage duration, time is a crucial factor in reinstating or remediating the damaged/fallen structures.
- Made of structurally highly stable box sections, ERS is lightweight, modular and reusable.

Prelims Factoids: PM unveils 'Statue of Peace' to mark 151st Birth Anniversary celebrations of Jainacharya Shree Vijay Vallabh Surishwer Ji Maharaj

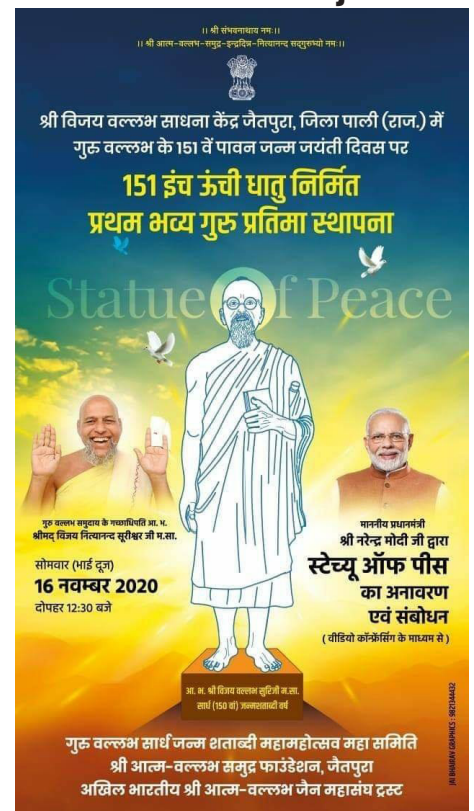
Relevance IN – Prelims (about Jainacharya Shree Vijay Vallabh Surishwer Ji Maharaj)

What's the NEWS

- Prime Minister unveil 'Statue of Peace' to mark the 151st Birth Anniversary celebrations of Jainacharya Shree Vijay Vallabh Surishwer Ji Maharaj

Know! about Shree Vijay Vallabh Surishwer Ji

- Shree Vijay Vallabh Surishwer Ji Maharaj (1870-1954) led an austere life as a Jain Saint working selflessly and dedicatedly to spread the message of Lord Mahavira.
- He also worked relentlessly for the welfare of masses, spread of education, eradication of social evils, wrote inspiring literature (poetry, essays, devotional hymns and Stavans) and gave active support to the freedom movement and the cause of Swadeshi.
- With his inspiration, more than 50 educational institutions of eminence, including colleges, schools and study centres, are operational across several States.
- The Statue to be unveiled in his honour has been named as 'Statue of Peace'.
- The 151 inch tall statue has been made from Ashtadhatu i.e. 8 metals, with Copper being the major constituent, and is being installed at Vijay Vallabh Sadhana Kendra, Jetpura, in Pali, Rajasthan.



Defence: Quick Reaction Surface-to-Air Missile (QRSAM) system

Relevance IN – Prelims (about QRSAM)

What's the NEWS

- Quick Reaction Surface-to-Air Missile (QRSAM) system were successfully test-fired at an integrated test range of around 30 kilometres in Chandipur off the Odisha coast

- By directly hitting a pilotless target aircraft (PTA) at medium range and medium altitude, the QRSAM system has achieved a major milestone.
- The state-of-the-art missile was launched from the Integrated Test Range (ITR) at Chandipur in Odisha's Balasore
- The successful test-firing of the QRSAM paves the way for its commercial production.
- The system has achieved a major milestone by a direct hit on a Banshee pilotless target aircraft at medium range and medium altitudes



Know! more about QRSAM

- The system is capable of detecting and tracking targets on the move and engaging targets with short halts.
- It is designed to give air defence coverage for strike columns of the Indian Army. "The missile is propelled by a single-stage solid propellant rocket motor and uses all indigenous subsystems.
- It is capable of detecting and tracking targets on the move and engaging targets with short halts.
- The system is designed to give air defence coverage against strike columns of Indian Army
- Propelled by a single stage solid propellant rocket motor, the sophisticated missile used all indigenous subsystems.
- It is canisterised for transportation and launch using a mobile launcher which is capable of carrying six canisterised missiles.
- All QRSAM weapon system elements like battery multifunction radar, battery surveillance radar, battery command post vehicle and mobile launcher were deployed in the flight test.
- The radar tracked the target — Banshee PTA — from the farthest range and the missile was launched when the target was within kill zone and achieved the direct hit with terminal active homing by RF seeker guidance, according to the statement.
- The missile system is fully indigenous with active RF Seekers, Electro Mechanical Actuation (EMA) systems sourced from various industries.
- The radar is a four walled active phased Array radar. All range tracking stations, radar, EOTs and telemetry stations monitored the flight parameters.
- In the last two months, India has test-fired a number of missiles including a new version of the surface-to-surface supersonic cruise missile BrahMos and an anti-radiation missile named Rudram-1.

Space Awareness: Crew-1 mission

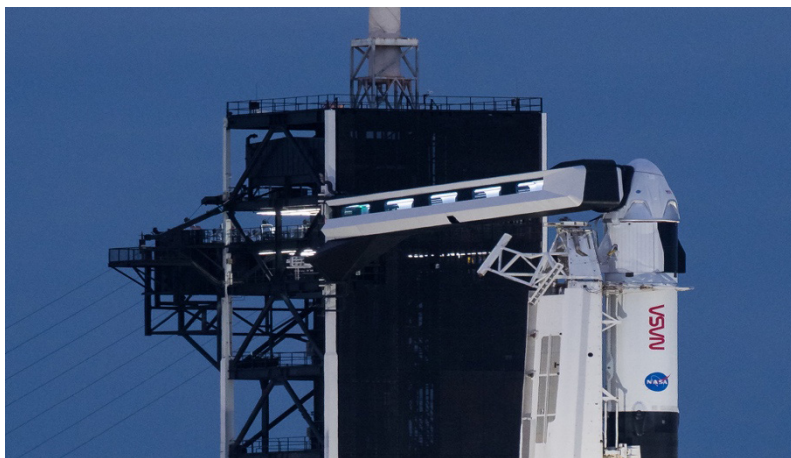
Relevance IN – Prelims (about Crew 1 mission)

What's the NEWS

- SpaceX's Crew Dragon spacecraft will lift off from NASA's Kennedy Space Center in Florida carrying a crew of four people to the International Space Station (ISS) on a six-month-long mission.

Know! about the Crew-1 mission

- This is the first crew rotation mission to the space station as part of NASA's Commercial Crew Programme.
- It aims at making access to space easier in terms of its cost to transfer scientists to and fro from International Space Station.



- It will launch the agency's astronauts along with Japan Aerospace Exploration Agency (JAXA) mission specialist, from Launch Complex 39A at Kennedy.
- Crew-1 astronauts will join the Expedition 64 crew of Commander Sergey Ryzhikov, and Flight Engineers Sergey Kud-Sverchkov and NASA astronaut Kate Rubins.
- The arrival of Crew-1 will increase the regular crew size of the space station's expedition missions from six to seven astronauts, adding to the amount of crew time available for research.
- Scientists will be conducting research and technology demonstrations benefiting life back on Earth.
- As a part of this research, they will conduct hundreds of microgravity studies, they also deliver new science hardware and experiments carried to space with them inside Crew Dragon.
- They will study food physiology, which will study the effects of dietary improvements in the space. They will also carry a few research projects to the space station.

Prelims Factoids: WORLD TOILET DAY 2020: SUSTAINABLE SANITATION AND CLIMATE CHANGE

Relevance IN – Prelims (about World toilet day + about SBMG)



What's the NEWS

- Department of Drinking Water and Sanitation (DDWS), Ministry of Jal Shakti will be celebrating 'World Toilet Day' tomorrow i.e. November 19, 2020 under 'Swachh Bharat Mission - Grameen (SBMG)' for promoting awareness on access to Safe Sanitation and felicitating districts/states for making significant contribution towards Swachhata.
- Phase 2 of SBMG has been launched early this year for sustaining the gains made under Phase 1 (2014-19) with focus on ODF Sustainability and Solid and Liquid Waste Management (SLWM).
- Various campaigns focusing on construction and beautification of Community Sanitary Complexes (CSCs) have been undertaken countrywide over past one year like Swachh Sunder Samudayik Sauchalay (SSSS) and Samudayik Sauchalay Abhiyan (SSA).

World Toilet Day

- It is a United Nations Observance that celebrates toilets and raises awareness of the 4.2 billion people living without access to safely managed sanitation.
- It is about taking action to tackle the global sanitation crisis and achieve Sustainable Development Goal 6: water and sanitation for all by 2030.
- World Toilet Organization was founded on 19 November 2001 and the inaugural World Toilet Summit was held on the same day, the first global summit of its kind.
- NGOs, the private sector, civil society organisations and the international community joined in to mark the global day.

- In 2013, a joint initiative between the Government of Singapore and World Toilet Organization led to Singapore's first UN resolution, entitled "Sanitation for All", calling for collective action to address the global sanitation crisis through the commemoration of World Toilet Day.
- The resolution was co-sponsored and adopted by 122 countries at the 67th session of the UN General Assembly in New York.
- On July 24, 2013, World Toilet Day on 19 November became an official UN day.

Education: Vatayan Lifetime Achievement Award

Relevance IN – Prelims (about Vatayan International Awards)

What's the NEWS

- Union Education Minister Shri Ramesh Pokhriyal 'Nishank' will be conferred with the **Vatayan Lifetime Achievement Award**
- This award will be another in the list of many other national and international awards and honours conferred to the Minister for writing, poetry and other literary works.

Ramesh Pokhriyal 'Nishank' (achievements)

- The German version 'nureinWunsch' of Shri Nishank's story collection 'Just a Desire', is published in Afro Asian Institute, Hamburg.
- His 'Sparsh Ganga' initiative was included in Mauritius school curriculum.
- He is actively associated with various Social activities such as unique drive of 'Swaran Ganga'.
- He has penned more than 75 books on wide ranging issues, which have also been translated into many national and foreign languages.

Vatayan International Awards

- Vatayan International Awards given by the Vatayan-UK organization in London, honours poets, writers and artists for their exemplary work in their respective fields.
- Earlier many eminent personalities like Prasoon Joshi, Javed Akhtar have been awarded the Vatayan Awards for their literary contribution.
- Vatayan-UK Samman will be held virtually on 21 November at 8.30 pm IST.

International: 15th G20 Leaders' Summit

Relevance IN – Prelims (about summit highlights)

What's the NEWS

- Prime Minister will be attending the 15th G20 Summit chaired by the Kingdom of Saudi Arabia, under the theme "Realising the Opportunities of 21st Century for All" on 21-22 November 2020. The meeting will be held in a virtual format.
- The upcoming summit is the second G 20 Leaders' meeting in 2020.

Know! about the summit highlights

- The last G 20 Extraordinary Leaders' summit was held in March 2020, where the leaders developed a timely understanding among the G20 countries to help contain the spread of the COVID 19 pandemic and to forge a global coordinated response.
- The focus of the upcoming G20 Summit will be on an inclusive, resilient, and sustainable recovery from the COVID-19.
- During the G 20 Summit, the leaders will discuss pandemic preparedness and the ways and means to restore jobs. The leaders will also share their vision for building an inclusive, sustainable, and resilient future.
- India will enter the G20 Troika, along with Saudi Arabia when Italy will take over the Presidency of the G-20 on 1st December, 2020.

Prelims Factoids: Loktantra ke Swar and The Republican Ethic released

Relevance IN – Prelims (about Loktantra ke Swar and ‘The Republican Ethic’)

What’s the NEWS

- Raksha Mantri released the third volume of the Selected Speeches of President Shri Ram Nath Kovind titled - Loktantra ke Swar and ‘The Republican Ethic’

Know! more about the release

- This compilation of speeches of President Shri Ram Nath Kovind presents a comprehensive picture of his work, personality and values.
- In these speeches, the preferences of a sensitive and idealistic public servant, a fair person living life based on morality can be seen.
- Information and Broadcasting Shri Prakash Javadekar released the e-version of the book on the President’s speeches.
- The Loktantra ke Swar and ‘The Republican Ethic’, published by the Publications Division, Ministry of Information and Broadcasting, Government of India, are series of books of collection of selected speeches of the President of India, Shri Ram Nath Kovind in Hindi and English respectively.
- The third volume, released today, contains 57 selected speeches of the President delivered during the third year of his presidency

Defence: Indian Navy to Host Exercise SIMBEX-20 in Andaman Sea

Relevance IN – Prelims (about Exercise SIMBEX-20)

What’s the NEWS

- Indian Navy (IN) is scheduled to host the 27th edition of India - Singapore Bilateral Maritime Exercise SIMBEX-20 from 23 to 25 November 2020 in Andaman Sea.

Know! all about SIMBEX

- The SIMBEX series of exercises between IN and Republic of Singapore Navy (RSN), being conducted annually since 1994, are aimed at enhancing mutual inter-operability and imbibing best practices from each other.
- The scope and complexity of these exercises has increased steadily over the past two decades to include advanced naval drills covering a wide spectrum of maritime operations.
- The 2020 edition of SIMBEX will witness participation by Indian Navy ships including destroyer *Ranawith* integral *Chetak* helicopter and indigenously built corvettes *Kamorta* and *Karmuk*.
- In addition, IN submarine *Sindhuraj* and P8I maritime reconnaissance aircraft will also participate in the exercise.
- SIMBEX-20 will witness the two friendly navies participate in advanced surface, anti-air warfare and anti-submarine warfare exercises including weapon firings, over three days of intensive joint operations at sea.
- SIMBEX series of exercises exemplify the high level of coordination and convergence of views between India and Singapore, particularly in the maritime domain, towards enhancing the overall maritime security in the region and highlight their commitment to a rules-based international order.



Defence: Trilateral Maritime Exercise Sitmex-20 In Andaman Sea

Relevance IN – Prelims (about Exercise SITMEX-20)

What's the NEWS

- Indian Navy (IN) Ships including indigenously built ASW corvette *Kamorta* and missile corvette *Karmuk* are participating in the 2nd edition of India, Singapore and Thailand Trilateral Maritime Exercise SITMEX-20, from 21 to 22 November 20 in Andaman Sea.

Know! about SITMEX

- The first edition of SITMEX, hosted by Indian Navy, was conducted off Port Blair in September 2019.
- The SITMEX series of exercises are conducted to enhance mutual inter-operability and imbibing best practices between IN, Republic of Singapore Navy (RSN) and Royal Thai Navy (RTN).
- The 2020 edition of the exercise is being hosted by RSN.
- RSN is being represented by the 'Formidable' Class frigate '*Intrepid*' and 'Endurance' Class Landing Ship Tank '*Endeavour*' and RTN by the 'Chao Phraya' Class frigate '*Kraburi*' in the exercise.
- The exercise, being conducted as a '*non-contact, at sea only*' exercise in view of COVID-19 pandemic
- The two days of maritime drills will witness the three navies participate in a variety of exercises including naval manoeuvres, surface warfare exercises and weapon firings.
- SITMEX series of exercise aim to strengthen mutual confidence and develop common understanding and procedures towards enhancing the overall maritime security in the region.



Space Awareness: Sentinel-6 satellite

Sentinel-6 – diving into ocean surfaces

The Copernicus satellite will carry out high-precision measurements observing ocean currents and documenting changes in sea-surface height and levels.

- Vital for predicting sea level rises – currently > 3mm per year – to protect coastal regions
- Monitors changes in sea surface height with an accuracy of a few centimetres
- Mission up to **7** years
- Global mapping of the sea surface topography every **10** days
- Airbus is satellite prime contractor, building on heritage from **20+** satellites currently providing insights on climate change
- Working together around the globe to protect our planet (ESA, NASA, NOAA, EUMETSAT)

AIRBUS

Relevance IN – Prelims (about Sentinel-6 satellite)

What's the NEWS

- The Sentinel-6 satellite lifts off from the Vandenberg Air Force base in California on November 21

Know! all about Sentinel-6 satellite (aim and applications)

- The Copernicus Sentinel-6 Michael Freilich satellite, designed to monitor oceans, was launched from the Vandenberg Air Force base in California aboard a SpaceX Falcon 9 rocket on November 21.
- This is a part of the next mission dedicated to measuring changes in the global sea level.
- Other satellites that have been launched since 1992 to track changes in the oceans on a global scale include the TOPEX/Poseidon, Jason-1 and OSTN/Jason-2, among others.
- The mission, called the Jason Continuity of Service (Jason-CS) mission, is designed to measure the height of the ocean
- . The spacecraft consists of two satellites, one of them launched, and the other, called Sentinel-6B, to be launched in 2025.
- It has been developed jointly by the European Space Agency (ESA), NASA, European Organisation for the Exploitation of Meteorological Satellites (Eumetsat), the USA's National Oceanic and Atmospheric Administration (NOAA) and the EU, with contributions from France's National Centre for Space Studies (CNES).
- The satellite will ensure the continuity of sea-level observations into the fourth decade and will provide measurements of global sea-level rise.
- Since 1992, high-precision satellite altimeters have helped scientists understand how the ocean stores and distributes heat, water and carbon in the climate system.
- Essentially, the satellite will send pulses to the Earth's surface and measure how long they take to return to it, which will help scientists measure the sea surface height.
- The data it collects will support operational oceanography, by providing improved forecasts of ocean currents, wind and wave conditions.
- **This data will allow improvements in both short-term forecasting for weather predictions in the two-to-four-week range (hurricane intensity predictions), and long-term forecasting, for instance for seasonal conditions like El Niño and La Niña.**

Importance of measuring the height of the ocean

- Data from satellites such as Sentinel-6 help scientists foresee the effects of the changing oceans on the climate.
- In order to measure and track changes in the oceanic heat budget, scientists need to know the ocean currents and heat storage of the oceans, which can be determined from the height of the sea surface.

Prelims Factoids: All India Presiding Officers Conference

Relevance IN – Prelims (about the All India Presiding Officers Conference)

What's the NEWS

- Prime Minister addressed the concluding session of the 80th All India Presiding Officers Conference at Kevadia in Gujarat
- The two-day conference began at Kevadia in Gujarat. President Ram Nath Kovind inaugurated the conference which is being attended by Vice President and Rajya Sabha Chairman M Venkaiah Naidu, Lok Sabha Speaker Om Birla
- Speaker Om Birla is also the chairperson of the conference.

All India Presiding Officers Conference

- The All India Presiding Officers Conference began in 1921, and the Gujarat event marks its centenary year.
- The theme for this year's conference is Harmonious Coordination between Legislature, Executive and Judiciary - Key to a Vibrant Democracy.



- The conference, discussed ways to ensure constitutional accountability of the legislature and the executive to the people.
- It has also take up issues related to working of the state legislatures in a disciplined and orderly fashion.
- The event, also known as the Speakers' Conference, will end on the Constitution Day (November 26) with a virtual address by Prime Minister

Social Issues : Nyaya Bandhu App

Relevance IN – Prelims (about Nyaya Bandhu Application)

What's the NEWS

- Committed to fulfil its mandate of Free legal aid and Access to Justice as enunciated under Article 39A of the Constitution of India, the Department of Justice launched the iOS version of the Nyaya Bandhu Application and its onboarding on UMANG platform (MeiTY), on Samvidhan Divas 26th Nov, 2020.
- The UMANG platform would also enable to make pan India easy accessibility of this mobile based legal service to approx 2.5 Cr registered users.

Nyaya Bandhu mobile application

- Nyaya Bandhu mobile application was launched by Union Minister for Law and Justice and IT Shri Ravi Shankar Prasad in February, 2019 to ensure empowerment of common man by popularizing technology to a level that it becomes a instrument of change.
- Launched in 2017, Department of Justice has come up with India's first endeavour to institutionalize a framework for pro bono dispensation in the legal arena.
- In its maiden attempt, to firstly connect the registered litigants/applicants with the registered Pro Bono Advocates, Department of Justice is leveraging technology to remove any geographical barrier in availing access to justice.
- In this regard, Department of Justice has partnered with CSC e- Governance Services and developed Nyaya Bandhu Mobile Application on Android platform.

Constitution Day or Samvidhan Divas

- It is celebrated every year on 26th November to commemorate the adoption of the Constitution of India and to acknowledge the unprecedented efforts of the Founding Fathers in the making of the Indian Constitution, amid historic challenges and events.
- In taking forward this novel ideas, principles and values enunciated in this Fundamental Law of the Land, in 2019, Department of Justice was nominated as the Nodal Coordinating department and the forerunner for the execution of pan Indian awareness programme on Citizens' Duties including Fundamental Duties as enshrined under the Indian Constitution.



The banner features the Digital India logo at the top left, with the text 'Four Years of Digital India' below it. On the right, there is a portrait of Prime Minister Narendra Modi. The central text reads 'NYAYA BANDHU Pro Bono Legal Services'. Below this, a hand is shown holding a smartphone displaying the app's interface. At the bottom, a circular logo for 'Nyaya Bandhu Pro Bono Legal Services' is visible. To the right of the logo, statistics are listed: '533 Advocates have registered and 423 Cases assigned till May 2019'. On the left, a text box states: 'It aims to provide free legal aid to registered Applicants through registered Pro Bono Advocates'.

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अभी ज्वाइन करें!

GENERAL STUDIES II

**Governance, Constitution,
Polity, Social Justice and
International relations**

Bilateral Relations: Cabinet approves the Memorandum of Understanding between India and Cambodia on cooperation in the field of Health and Medicine

Relevance IN – Mains (GS II bilateral relations – facts to substantiate your answer)

What's the NEWS

- The Union Cabinet has approved the signing of the Memorandum of Understanding (MoU) between India and Cambodia on cooperation in the field of Health and Medicine.
- The bilateral MoU will encourage cooperation between the two countries through joint initiatives and technology development in the health sector.
- It will strengthen bilateral ties between India and Cambodia.

The main areas of cooperation between the two Governments include:

- Mother and child health;
- Family Planning;
- HIV/AIDS and TB;
- Drugs and Pharmaceuticals;
- Technology Transfer;
- Public Health and Epidemiology;
- Disease Control (Communicable and Non-Communicable);
- Medical Research and Development, subject to the approval of the National Ethic Committee of Cambodia and to the clearance by concerned Department/Ministry in India;
- Medical Education;
- Health manpower development in the field of public health;
- Training in clinical, para-clinical and management skills; and
- Any other area of cooperation as may be mutually decided upon.

Defence: CDF Kenya – Week Long Visit to India

Relevance IN – Prelims (about CDF Kenya first visit outside Africa) Mains (GSII Bilateral relations)

What's the NEWS

- General Robert Kibochi, Chief of Defence Forces of Kenya is visiting India **from 02 - 06 Nov 2020 on the invitation by the Ministry of Defence.**

Know! more about the first ever visit

- India is the first country that the CDF Kenya is visiting outside of Africa
- The General Officer's visit comes at a time when the bilateral relationship between India and Kenya is poised for deeper engagement.
- Post visit of Hon'ble PM Shri Narendra Modi to Kenya in 2016 and a reciprocal visit by H. E. President Kenyatta in 2017, the relationship has grown from strength to strength.
- Ongoing areas of defence cooperation include Capacity & Capability building, Counter Terrorism, UN Peace Keeping Operations, Medical health care and Cyber security.
- Considering that India and Kenya are mature democracies and have professional Armed Forces there is a lot of convergence of thought between the two nations.
- The visit will cement the already strong bilateral ties between the two countries and the two Armed Forces.

Government Schemes: Guidelines of PLI schemes to promote domestic production of bulk drugs and manufacturing of medical devices 'Revised'

Relevance IN – Prelims (all about PLI scheme) + Mains (GS II government policies and interventions)

What's the NEWS

- Union Department of Pharmaceuticals, Ministry of Chemicals and fertilizers has revised the Production Linked Incentive (PLI) Schemes for promoting domestic manufacturing of bulk drugs and medical devices keeping in view the suggestions and comments received from the industry.

Know! about the Production Linked Incentive scheme of the Department of Pharmaceuticals

- Accordingly 'minimum threshold' investment requirement has been replaced by 'committed investment' taking into account availability of technology choices which varies from product to product.

The Department of Pharmaceuticals earlier come out with the following two Production Linked Incentive schemes-

- Production Linked Incentive scheme for promotion of domestic manufacturing of critical Key Starting Materials, Drug Intermediates and Active Pharmaceutical Ingredients in India
- Production Linked Incentive Scheme for Promoting Domestic Manufacturing of Medical Devices

Know! about the PLI scheme

- It is a part of the National Policy on Electronics, which would give incentives of 4-6 per cent to electronics companies which manufacture mobile phones and other electronic components and nano-electronic components
- According to the scheme, companies that make mobile phones which sell for Rs 15,000 or more will get an incentive of up to 6 per cent on incremental sales of all such mobile phones made in India.
- In the same category, companies which are owned by Indian nationals and make such mobile phones, the incentive has been kept at Rs 200 crore for the next four years.
- The PLI scheme will be active for five years with financial year (FY) 2019-20 considered as the base year for calculation of 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.
- All electronic manufacturing companies which are either Indian or have a registered unit in India will be eligible to apply for the scheme.
- Any additional expenditure incurred by companies on plant, machinery, equipment, research and development and transfer of technology for manufacture of mobile phones and related electronic items will be eligible for the incentive scheme.
- However, all investment done by companies on land and buildings for the project will not be considered for any incentives or determine eligibility of the scheme.

India aims production-linked incentive schemes for 9-10 more sectors

- NITI Aayog Vice Chairman Rajiv Kumar said that India will soon introduce production-linked incentive schemes for nine to 10 sectors.
- This decision is aimed at encouraging local manufacturing. The government had already launched PLI schemes for mobile phones, medical devices, electronic manufacturing and pharmaceuticals.
- The objective of the scheme is to incentivise investors in this country to put up globally comparable capacity in scale and competitiveness.

Know! about the Indian pharmaceutical industry

- The Indian pharmaceutical industry is the third largest globally in terms of volume and contributes significantly to India's economic growth and export earnings.
- The Medical Devices industry is identified as a sunrise sector with great potential for diversification and employment generation.
- The Government of India has launched several initiatives to support the Pharmaceutical and Medical Devices industry to reach their potential in the coming years.

International Organisations: India, GCC Troika hold annual Political Dialogue

Relevance IN – Prelims (about GCC) + Mains (GS II Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests)

What's the NEWS

- India and the GCC Troika held their annual Political Dialogue today in virtual mode.
- External Affairs Minister Dr. S. Jaishankar led the Indian delegation.
- Senior representatives from Saudi Arabia, Kuwait and Qatar also participated in the meeting.

Know! about GCC

- The Cooperation Council for the Arab States of the Gulf also known as the Gulf Cooperation Council, is a regional intergovernmental political and economic union consisting of all Arab states of the **Persian Gulf - Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates - except Iraq**.
- The Charter of the GCC was signed on 25 May 1981, formally establishing the institution.
- All current member states are monarchies, including three constitutional monarchies (Qatar, Kuwait, and Bahrain), two absolute monarchies (Saudi Arabia and Oman), and one federal monarchy (the United Arab Emirates, which is composed of seven member states, each of which is an absolute monarchy with its own emir).



Governance: ICT Grand Challenge 2020



Relevance IN – Prelims (about ICT grand challenge + about JJM) + Mains (GS II government policies and interventions+ governance – accountability and transparency)

Digitisation of water supply infrastructure

- The Jal Jeevan Mission (JJM) aims providing Tap Connection to every rural household by 2024 with particular focus on 'service delivery' i.e. regular water supply in adequate quantity and of prescribed quality on long-term basis.

- This necessitates the **use of modern technology in monitoring of the programme** and to capture service delivery data automatically for ensuring the quality of services.
- Digitisation of water supply infrastructure has the potential to solve current problems as well as help anticipate and address future challenges.

Smart water supply measurement and monitoring system

- In order to harness the power of technology in water management which is the need of the hour, the Ministry of Electronics & Information Technology in partnership with National Jal Jeevan Mission, Department of Drinking Water and Sanitation, Ministry of Jal Shakti had announced an ICT Grand Challenge to develop a 'Smart water supply measurement and monitoring system'.
- The Jal Jeevan Mission would be the user agent of the Grand Challenge and C-DAC, Bangalore is the implementing agency and would provide technical support for the challenge.
- C-DAC will also provide technical support for Proof of Concept (PoC) development to the shortlisted candidates. It would also provide mentoring support, technical guidance to them.
- The challenge witnessed enthusiastic participation from all over India with a total of 218 applications.
- The evaluation of the applications is currently in progress. Shortlisted submissions will be invited for presentation.
- Way forward in the Grand challenge includes Ideation to Prototype Stage, Prototype to Product Stage, Product Deployment Stage, and announcement of three winners.
- All these stages would be carried out with funding support from MeitY and National Jal Jeevan Mission.
- Based on evaluation throughout these steps, one winner and two runners-up will be selected and awarded with Rs. 50 Lakh, for the winner and Rs. 20 Lakh of each runner-up.

Know! more about Grand Challenge

- This Grand Challenge will harness the vibrant IoT eco-systems of India for creating smart rural water supply eco-system to measure and monitor the service delivery of the water supply in rural areas.
- This Challenge will provide an opportunity to work for Jal Jeevan Mission and to assure potable water supply through Functional Household Tap Connections to every rural household.

Prelims Factoids: International Election Visitors Programme 2020



Relevance IN -Prelims (about IEVP 2020 + about A -WEB + SVEEP) + Mains (GS II governance)

What's the NEWS

- The Election Commission of India is organizing an International Virtual Election Visitors Programme 2020 (IEVP) for foreign Election Management Bodies (EMBs)/Organisations from 05-07 Nov 2020, in the context of the ongoing Bihar Legislative Assembly Elections.

International Election Visitor Programmes (IEVPs)

- In the past, ECI has organized International Election Visitor Programmes (IEVPs) for foreign EMBs/Organizations in 2014 Lok Sabha elections; elections for a few State Assemblies in Feb/March 2017 and Lok Sabha Elections in May 2019
- Bihar has an electorate of over 72 million, one of the largest in the world to vote so far amid the COVID19 pandemic.
- This provides us with an opportunity to share our best practices and experience of the conduct of our poll process during the pandemic period.
- Delegates from over 40 countries across the world and 3 international organizations (viz. **International IDEA, International Foundation of Electoral Systems (IFES) and Association of World Election Bodies (A-WEB)**) have been invited to participate in the IEVP 2020.
- The Programme for IEVP 2020 comprises an online briefing session which would provide to the participants an overview of the large canvas of Indian electoral process
- The Programme will provide a unique overview of the Commission's flagship programme for voter awareness – **SVEEP (Systematic Voters' Education and Electoral Participation)**.

Association of World Election Bodies (A-WEB)

- The Association of World Election Bodies, commonly referred to as 'A-WEB,' was established on October 14, 2013 in Song-do, South Korea.
- A-WEB is the first global organization of election management bodies, and the membership currently consists of 115 EMBs as members and 20 Regional associations as associate members.
- Under the slogan of 'Democracy to Grow for All Worldwide,' the A-WEB Secretariat provides training programs for election officials of member nations and undertakes country programs at the request of member organization, providing support during the election cycle to boost election management capacity.
- The current chairman is Sunil Arora from Republic of India.

Know! about SVEEP

- Systematic Voters' Education and Electoral Participation program, better known as SVEEP, is the flagship program of the Election Commission of India for voter education, spreading voter awareness and promoting voter literacy in India.
- Since 2009, ECI has been working towards preparing India's electors and equipping them with basic knowledge related to the electoral process.
- SVEEP's primary goal is to build a truly participative democracy in India by encouraging all eligible citizens to vote and make an informed decision during the elections.
- The programme is based on multiple general as well as targeted interventions which are designed according to the socio-economic, cultural and demographic profile of the state as well as the history of electoral participation in previous rounds of elections and learning thereof.

Governance: New online system of MSME/Udyam Registration

Relevance IN – Prelims (about Udyam Registration + about CHAMPIONS) + Mains (GS II Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

What's the NEWS

- New online system of MSME/Udyam Registration launched by Union MSME Ministry, w.e.f. 1st July, 2020, has stood the test of Time & Technology as more than 11 lakh MSMEs have successfully registered themselves by now.

Know! the steps taken by the Ministry to ease the registration process

- Ministry of MSME had revised the definition of MSMEs and process of registration w.e.f. 1st July, 2020.
- It also launched a new portal for MSME/Udyam registration (<https://udyamregistration.gov.in>).
- This portal is seamlessly integrated with CBDDT and GST networks as also with the GeM.

- Through this integration, now MSME registration is a totally paperless exercise.
- Ministry has instructed all of its Field Establishments such as MSME-Development Institutes, MSME Technology Centers, NSIC, KVIC, Coir Board to extend full support to entrepreneurs for Udyam Registration.
- All District Magistrates and District Industries Centers have been requested to expedite registration by the MSMEs.
- Grievances of MSMEs relating to registration are being handled by CHAMPIONS' platform through its network of Central Control Room and 68 State Control Rooms across the country.

Registration Process

- An enterprise for the purpose of this process will be known as Udyam and its Registration Process will be known as 'Udyam Registration'
- A permanent registration number will be given after registration.
- After completion of the process of registration, a certificate will be issued online.
- This certificate will have a dynamic QR Code from which the web page on our Portal and details about the enterprise can be accessed.
- There will be no need for renewal of Registration.
- The single window systems at Champions Control Rooms and at DICs will help you in the process.
- Registration Process is totally free. No Costs or Fees are to be paid to anyone.
- MSME Registration is free, paperless and based on self- declaration
- MSME registration process is fully online, paperless and based on self-declaration.
- No documents or proof are required to be uploaded for registering an MSME.
- Only Adhaar Number will be enough for registration.
- PAN & GST linked details on investment and turnover of enterprises will be taken automatically from Government data bases.
- Having PAN & GST number is mandatory from 01.04.2021.

An enterprise shall be classified as a micro, small or medium enterprise on the basis of the following criteria, namely: --

- 1 A micro enterprise, where the investment in plant and machinery or equipment does not exceed **one crore rupees and turnover does not exceed five crore rupees;**
- 2 A small enterprise, where the investment in plant and machinery or equipment does not exceed **ten crore rupees and turnover does not exceed fifty crore rupees;** and
- 3 A medium enterprise, where the investment in plant and machinery or equipment does not exceed **fifty crore rupees and turnover does not exceed two hundred and fifty crore rupees.**

Creation and Harmonious Application of Modern Processes for Increasing the Output and National Strength (CHAMPIONS)

The single window system for the MSMEs

- To put up and promote a unified, empowered, robust, bundled and technology driven platform for helping and promoting the Micro, Small and Medium Enterprises (MSMEs) of the country.
- It will aim at Creation and Harmonious Application of Modern Processes for Increasing the Output and National Strength.

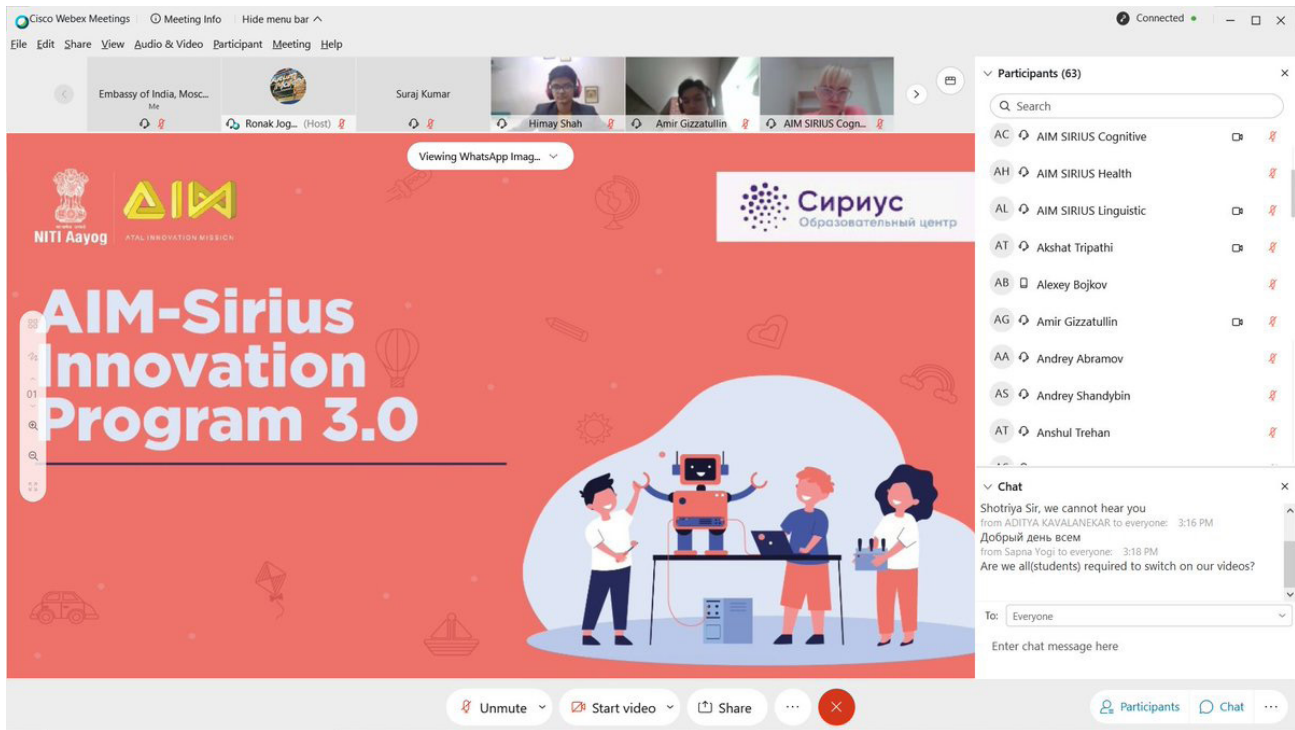


- This is basically for making the smaller units big by helping and handholding, in particular, by solving their problems and grievances

Three basic objectives of the CHAMPIONS:

- To help the MSMEs in this difficult situation in terms of finance, raw materials, labour, permissions, etc.
- To help the MSMEs capture new opportunities in manufacturing and services sectors.
- To identify the sparks, i.e., the bright MSMEs who can withstand at present and become national and international champions.

NITI Aayog: AIM–Sirius Innovation Programme 3.0



Relevance IN – Prelims (about AIM–Sirius Innovation Programme 3.0) + Mains (GS II bilateral relations + GS III awareness in the field of S&T)

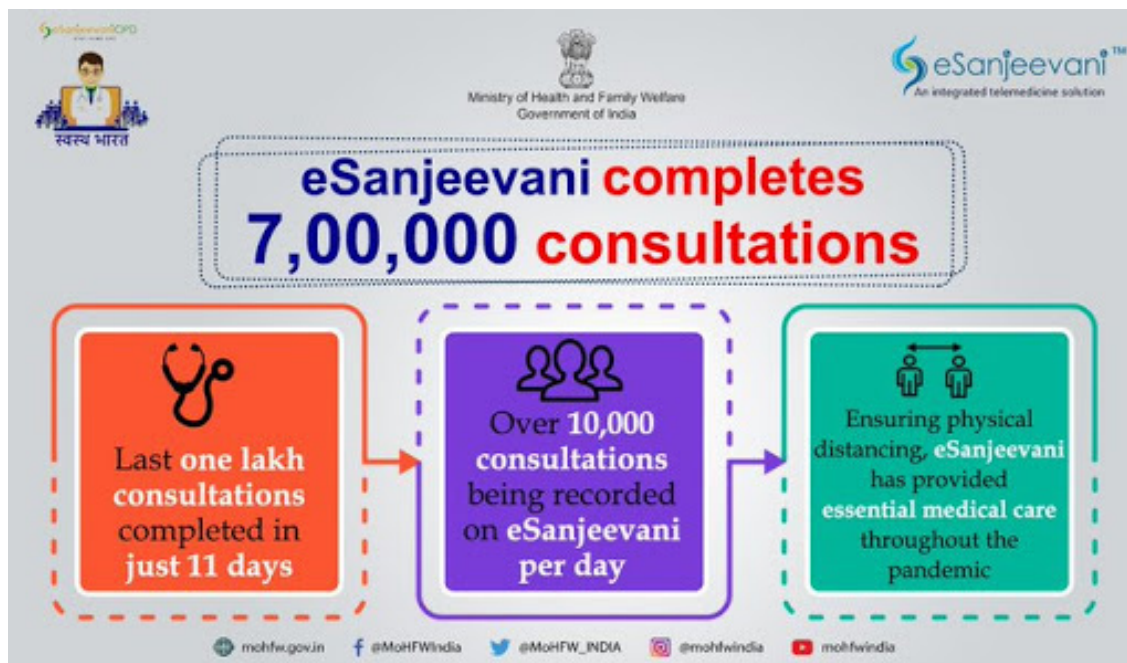
What's the NEWS

- Atal Innovation Mission (AIM) and Sirius, Russia, launched 'AIM–Sirius Innovation Programme 3.0'— a 14-day virtual programme for Indian and Russian schoolchildren.
- The first Indo-Russian bilateral youth innovation initiative, the AIM–Sirius programme seeks to develop technological solutions (both web- and mobile-based) for the two countries.

Indo-Russian bilateral youth innovation initiative

- Over a two-week programme, from 7–21 November 2020, 48 students and 16 educators and mentors will create 8 virtual products and mobile applications addressing global challenges— across a range of areas such as culture, distance education, applied cognitive science, health and well-being, sports, fitness, and games training, chemistry, artificial intelligence, and digital financial assets—in the wake of the covid-19 pandemic.
- This is the first virtual bilateral student collaboration between India and Russia and shows immense commitment by both the Atal tinkering labs and Sirius teams.
- AIM and Sirius' mentors from the industry and academia will work closely with the teams.
- This year's cohort comprises the best Russian students from the Sirius Centre and the best Indian students and ATL in-charges from the top 150 teams of the 2019 ATL Marathon.
- Last year, an Indian delegation of 25 students and 5 teachers visited the Sirius Centre, Russia, for a 7-day research-based programme.

Health: Health Ministry's telemedicine service eSanjeevani completes 7 lakh consultations



Relevance IN – Prelims (about eSanjeevani) + Mains (GS II Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources)

What's the NEWS

- eSanjeevani, the national telemedicine service set up by the Ministry of Health and Family Welfare, Government of India, has completed 7 lakh consultations

Know! about eSanjeevani

- The top ten States which have registered highest consultations through eSanjeevani and eSanjeevaniOPD platforms are Tamil Nadu, Uttar Pradesh, Kerala, Himachal Pradesh, Andhra Pradesh, Madhya Pradesh, Gujarat, Uttarakhand, Karnataka and Maharashtra.
- Ministry of Health and Family Welfare, Government of India along with Centre for Development of Advanced Computing (Mohali) is consistently enhancing the capabilities and adding new functionalities in eSanjeevani in consultation with State Administrations.
- eSanjeevani supports two types of online consultation with general physicians and medical specialists, these are Doctor-to-Doctor (eSanjeevani AB-HWC) and Patient-to-Doctor (eSanjeevani OPD) Tele-consultations.

eSanjeevani AB-HWC

- The former variant was rolled out in November 2019 and it is an important pillar of the Ayushman Bharat Health and Wellness Centre (AB-HWCs) programme.
- eSanjeevani (AB-HWC) is to be implemented in all the 1.5 lakh Health and Wellness Centres in a 'Hub and Spoke' model, by December 2022.
- States need to set up dedicated 'Hubs' in Medical Colleges and District hospitals to provide tele-consultation services to 'Spokes', i.e. Health & Wellness Centres (HWC).

eSanjeevani OPD

- The Health Ministry rolled out eSanjeevaniOPD i.e. the second variant to enable patient-to-doctor teleconsultations in April this year during first lockdown when the OPDs across the country were closed owing to the COVID-19 pandemic.

Education: National Seminar on Ancient Indian Education system

**NATIONAL SEMINAR ON
ANCIENT INDIAN
EDUCATION SYSTEM**
(11th & 12th November 2020)



Chief Guest
Shri Ramesh Pokhriyal 'Nishank'
Hon'ble Education Minister,
Govt. of India

Inauguration Ceremony:
11th November, 2020 at 3:00 PM
Please join at 2:45 PM sharp



**National Institute of Technical Teachers'
Training and Research, Kolkata**

Guest of Honour
Prof. Bhushan Patwardhan
Vice-Chairman, UGC, New Delhi

Shri Harshavardhan Neotia
Chairman, BOG, NITTTR, Kolkata

Prof. Debi Prasad Mishra
Director, NITTTR, Kolkata

Prof. Sriyankar Acharyya
Professor, CS&E, MAKAUT, WB

Prof. Sudipto Bhattacharya
Professor, VIT Business School, VIT University, Tamil Nadu

Prof. Aniruddha Burmon
HOD, B Ed Section, UBTEC, Cooch Behar, WB

Prof. DhanushDhari Misra
Chairman, BOG, IIT Dhanbad

Prof. Surendra Kumar
Former VC, Kangri Gurukula University, Haridwar

Seminar Homepage:
<https://t.ly/CbFM>

Registration Link:
<https://t.ly/BowK>

Relevance IN – Prelims (about the seminar + about NITTTR + about National Education Day.)

What's the NEWS

- Union Education Minister inaugurated a two-day **National Seminar on Ancient Indian Education system organised by NITTTR, Kolkata**
- The programme was organised on the occasion of Maulana Azad's birth anniversary, celebrated as **National Education Day**.
- Maulana Azad was a great scholar and first Education Minister of India
- This national seminar will provide awareness amongst the participants about the importance of the ancient Indian Education system.
- This seminar will give a boost to glorify the fundamentals of our ancient education, which never means holding on to the past, but thinking with a different vision for holistic development of our citizens.

Know! about NITTTR

- It is a resources institution established by the Government of India for **quality improvement of Engineering Education** in regions of the country in particular.
- It promotes excellence in Engineering Education by planning, designing, developing, implementing and evaluating quality training programmes, learning resources, research studies and extension services for technical educational institutions, industry and community.
- It establish and foster collaboration with industry, state, national and international Institutes, Universities and other agencies committed to the development of Technical Education
- It acts as a centre for offering quality training programmes for teachers as per needs of the client system, covering the entire gamut of technical education including engineering colleges, polytechnics, vocational and management education, at regional and national levels.
- It develops and disseminate learning resources like Textbooks, Laboratory Manuals, Video Programmes, Computer Assisted Instructional Multimedia Packages to technical and vocational institutions and other organisations.
- It offers programmes for technical and vocational teachers in distance learning mode using state-of-the-art technologies.

- It also offers courses / programmes for technical and vocational teachers to suit overseas demand especially SAARC & ASEAN countries.

National Education Day 2020

- Every year since 2008, November 11 is celebrated as education day to commemorate the birth anniversary of Maulana Abul Kalam Azad.
- Azad was independent India's first education minister.
- Azad, a freedom fighter, served India in the capacity of minister of education from 1947 to 1958. He is known for making several significant contributions in the field of education.
- India's HRD ministry had institutionalised this practice starting 2008 after it decided to honour the famous reformer's contribution to nation building.

International Organisations: Report on 'Deepening Cooperation in IBSA

Relevance IN – Prelims (about IBSA + about IBSA Visiting Fellowship Program.) + Mains (GS II regional and global grouping)

What's the NEWS

- Ministry of External Affairs (MEA) launched the India-Brazil-South Africa (IBSA) report on **'Deepening Cooperation in IBSA: Perspectives from Key Sectors'**.
- MEA launched the IBSA Report on "Deepening Cooperation in IBSA: Perspectives from Key Sectors", prepared by the 2nd batch of Fellows under the IBSA Visiting Fellowship Program."
- The fellows undertook research on cooperation at the UN, Intellectual Property Rights, Traditional Medicine, Financial Sector Cooperation & Trade in Banking Services & Energy

Know! all about IBSA

- IBSA is a unique Forum which brings together India, Brazil and South Africa, three large democracies and major economies from three different continents, facing similar challenges.
- All three partners are developing, pluralistic, multi-cultural, multi-ethnic, multi-lingual and multi-religious nations.
- IBSA, formalized at Foreign Ministers meeting in Brasilia in June 2003
- IBSA is a purely South-South grouping of like-minded countries, committed to inclusive sustainable development, in pursuit of the well-being for their peoples and those of the developing world.

- The principles, norms and values underpinning the IBSA Dialogue Forum are participatory democracy, respect for human rights, the Rule of Law and the strengthening of multilateralism.
- So far Five IBSA Leadership Summits have been held. The 5th IBSA Summit was held in Pretoria on 18 October 2011.
- The 6th IBSA Summit is to be hosted by India. Further, Nine IBSA Trilateral Ministerial Commission Meetings (ITMC) have been held at Foreign Ministers level. The 9th ITMC was held in New York on 27 September, 2018.
- IBSA Fund for Alleviation of Poverty and Hunger, established in 2004, is a unique Fund (with accumulated contributions of USD 37 million) through which development projects are executed with IBSA funding in fellow developing countries.
- Till date IBSA has supported 31 projects in 20 partner developing countries in the areas of safe drinking water, agriculture and livestock, solar energy, waste management, health etc., with the aim of contributing to the achievement of the SDGs (earlier MDGs).
- The IBSA Fund has been the recipient of several key recognitions including the UN South-South Partnership Award in 2006 (for projects in Haiti and Guinea-Bissau), an MDG Award for South-South Cooperation in 2010 and the South-South Champions Award in 2012 recognizing the work of the three countries in using innovative approaches to share development experiences in other parts of the world.
- The IBSA Fund project in Cambodia “Empowering Children and Adolescents with Special Needs and their Families” was honoured by the Government of Cambodia in 2013.
- Joint naval exercise IBSAMAR (IBSA Maritime Exercise) is another important part of IBSA trilateral defence cooperation.
- Six editions of IBSAMAR have been held so far, the latest one being off the coast of South Africa in October, 2018.
- India has instituted IBSA Visiting Fellowships for two researchers each from IBSA countries (through RIS) to carry out meaningful research on the IBSA Forum for better understanding of scholarly perspectives of IBSA partner countries in the formulation and harmonization of their strategies and recommendations.
- The First round of IBSA Visiting Fellowships concluded in 2018 and the second round of IBSA Visiting Fellowship programme has started February, 2019.

Know! more about IBSA Visiting Fellowship Program

- It is an academic exchange program
- It is instituted at Research and Information Systems for Developing Countries (RIS) along with the support of Ministry of External Affairs, India.
- It aims to promote exchange of young scholars in the field of economics and social sciences and strengthening research collaboration
- It promotes joint research in the field of trade and development, macro-economy, etc.

Know! about Research and Information System (RIS)

- RIS for Developing Countries is a Delhi based institute of research which specializes in issues related to international trade, investment, economic development and technology.
- The main aim of RIS is to promote South-South Cooperation and collaborate with developing countries at various forums.

International: 17th ASEAN India Summit

Relevance IN – Prelims (summit highlights) + Mains (GS II India and its neighbourhood-relations. Bilateral, regional and global groupings and agreements involving India and/or affecting India’s interests

What’s the NEWS

- Prime Minister participated in the 17th ASEAN-India Summit at the invitation of H.E. Nguyen Xuan Phuc, Prime Minister of Vietnam, the current Chair of ASEAN.
- The Summit, which saw the participation of all ten ASEAN Member States, was conducted in virtual format.



Summit Highlights

- ASEAN is central to India's Indo-Pacific Vision and contributes to Security And Growth for All in the Region (SAGAR).
- Prime Minister announced a contribution of US\$ 1 million to the COVID-19 ASEAN Response Fund.
- India offered US\$ 1 billion Line of Credit to support ASEAN connectivity.
- The ASEAN leaders acknowledged India's contribution towards promoting peace and stability in the region and welcomed India's support to ASEAN centrality.
- The Leaders also welcomed the adoption of the new ASEAN-India Plan of Action for 2021-2025.
- The Association of Southeast Asian Nations (ASEAN) is one of the most significant groups in the region.
- Indonesia, Malaysia, the Philippines, Singapore, Thailand, Brunei, Vietnam, Laos, Myanmar and Cambodia are its members.
- India, the US, China, Japan and Australia are its dialogue partners.
- Vietnam Prime Minister Nguyen Xuan Phuc co-chaired the meet.
- The leaders will discuss ways to further strengthen ASEAN-India engagement and in this context will note the adoption of ASEAN-India Plan of Action (2021-2025).

Defence: Mission Sagar - II

Relevance IN – Prelims (about Mission Sagar) + Mains (GS II bilateral relations)

What's the NEWS

- In continuation of the ongoing humanitarian mission 'Sagar-II', Indian Naval Ship Airavat arrived at Port of Djibouti, Djibouti on 10 November 2020.
- The Government of India is providing assistance to Friendly Foreign Countries to overcome natural calamities and COVID-19 pandemic, and towards the same INS Airavat is carrying food aid for the people of Djibouti.

Know! about Mission SAGAR

- The Mission Sagar-II is aligned with Prime Minister's vision of **SAGAR (Security and Growth for All in the Region)** and reiterates India's position as a dependable partner in **Indian Ocean Region (IOR)** with Indian Navy as the first responder in the maritime domain.



- The mission also highlights the importance accorded by India to relations with her maritime neighbours and further strengthens the existing bond.
- The Indian Navy is progressing this mission in close coordination with the Ministries of Defence and External Affairs, and other agencies of the Government of India.

Governance: Doorstep Service for submission of Digital Life Certificate through Postman launched

Relevance IN – Prelims (about Doorstep Service for submission of Digital Life Certificate through Postman) + Mains (GS II governance + government policies and interventions)

What's the NEWS

- India Post Payments Bank, **IPPB of Department of Posts & Meity** have successfully launched the initiative of the Department of Pension & Pensioners' Welfare: "Doorstep Service for submission of Digital Life Certificate through Postman".

Know! more about the newly launched facility

- The facility to submit life certificate online through Jeevan Pramaan Portal was launched by the Hon'ble Prime Minister in November, 2014 with the objective to provide a convenient and transparent facility to pensioners for submission of Life Certificate.
- In order to make this facility available across the country, DoPPW roped in the India Post Payments Bank (IPPB) and utilise its huge network of Postmen and Gramin Dak Sevaks in providing doorstep facility to pensioners for submission of life certificate digitally.

India Post Payments Bank

आपका बैंक, आपके द्वार | Apka Bank, Apka Dwaar

Jeevan Pramaan

an Aadhaar based Biometric enabled
Digital Life Certificate for Pensioners

- Completely paperless** issuance of Digital Life Certificate with Aadhaar authentication.
- Instant issuance of Certificate** at your doorstep through Postmen or at Post Office near you.
- No need for travel** to Pension Department/Banks, Digital Life Certificate details are **directly updated** with the department.
- Services available at a **nominal fee of Rs. 70** (inclusive of taxes)

How to get Jeevan Pramaan Certificate?

- ☒ Visit any Post Office near you or avail the services through Postman
- ☒ Provide basic details related to your pension account:
 - Pension ID
 - Pension Payment Order
 - Pension Disbursing Department
 - Bank Account details
 - Mobile Number
 - Aadhaar Number
- ☒ Authorize your request with biometric fingerprint scan
- ☒ Digital life certificate will be instantly generated with Pramaan ID sent to you on your mobile. Your Certificate details will be automatically updated with Pension Department.

Jeevan Pramaan/ Digital Life Certificate now available at your nearest post office or at doorstep

*India Post Payments Bank shall be responsible for Generation of Digital Life Certificate only. Any queries related to pension disbursement should be taken up with respective Pension Disbursing Agency. Pensioner should check for correctness of details submitted to avoid any rejection from Pension Disbursing Agency.

Connect us on

- IPPB has customized its Bank software and dovetailed the same with Jeevan Pramaan software of Ministry of Electronics & Information Technology (MeitY) and UIDAI, to provide DLC services at the doorstep of Pensioners.
- This facility shall be in addition to other facilities such as withdrawal of money from bank account etc. while sitting at home.
- IPPB is utilising its national network of more than 1,36,000 access points in Post Offices and more than 1,89,000 Postmen & Gramin Dak Sevaks with smart phones and biometric devices to provide Doorstep Banking Services.
- As a result a huge number of pensioners across the country shall be able to avail **doorstep service** through Postmen/ Gramin Dak Sevak, without visiting to bank branch or standing in a queue outside the bank branches.
- In order to avail “**doorstep service for submission of DLC**” through IPPB, pensioners can get detailed information on ippbonline.com.
- It is a chargeable service and will be available to all Central Government Pensioners across the country irrespective of the fact their pension accounts are in different bank.

Education: Online ATAL Faculty Development Programmes (FDPs)



Ministry of Education
Government of India

Shri Ramesh Pokhriyal 'Nishank'
Union Education Minister

INAUGURATING

46 FDPs & 500th ATAL Faculty Development Programme (FDP) of AICTE



23rd November



11 AM

Watch **LIVE**



DrRPNishank



Relevance IN – Prelims (about online AICTE Training and Learning (ATAL) Academy Faculty Development Programmes (FDPs) + Mains (GS II Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources)

What's the NEWS

- Union Education Minister inaugurated **46 online AICTE Training and Learning (ATAL) Academy Faculty Development Programmes (FDPs)** to train teachers of higher education institutions associated with All India Council of Technical Education (AICTE) in thrust and emerging areas in technology.
- The FDPs will be conducted in 22 Indian states.

Know! about Faculty Development Programmes (FDPs)

- The ATAL Academy is conducting FDPs in online mode, including the process of registration till certificate disbursal mechanism. In the year 2020-21, new thrust areas in the field of Engineering, Management, Life Skills, Design & Media have been incorporated.
- The online FDPs will be conducted according to the new National Education Policy (2020)
- Out of 1000, 499 FDPs have already been completed with more than 70,000 faculty members already trained.



- In 2019-20, 185 five-day face-to-face FDPs in nine thrust areas -- Artificial Intelligence, Internet of Things, Block-chain, Robotics, Quantum Computing, Data Sciences, Cyber Security, 3D Printing & Design, and Augmented Reality/Virtual Reality -- benefited around 10,000 participants.
- The main objective of ATAL Academy is to provide quality technical education in the country and to promote research and entrepreneurship through training in various emerging fields. IITs, IIITs, NITs CU and research labs are organizing these ATAL FDPs

Know! about 'Flipped Classroom' and 'Blended Learning' concept.

- Digital learning and the increasing use of smart devices such as computers, smart phones, and tablets have enhanced student learning.
- CBSE teachers have been trained under the 'Flipped Classroom' and 'Blended Learning' concept.
- In the flipped classroom model, students can take online lectures at home as per their convenience and the next day in class, they do assignments related to that lecture.
- This method not only improves learning ability, but also students' scores.
- Under this, teachers record their lectures and post videos online, which can be accessed by students.
- Students watch these videos and study at home and when they come to class they are ready with that lecture.
- The next day, teachers in classrooms provide activities related to the post lecture and students participate

The ATAL Academy to be included in the Guinness Book of World Records.

- It has recognized the FDPs as a world record, under which 1,000 online FDPs in over 100 emerging areas will benefit one lakh faculty members across premier institutions like IITs, NITs, and IIITs. This year the online FDP program will cost Rs 10 crores

Governance: UMANG's international version launched

Relevance IN – Prelims (about UMANG and its international version) + Mains (GS II good governance, transparency and accountability)

What's the NEWS

- To mark the occasion of 3 years of UMANG and 2000+ services milestone, an online conference was organized by the Ministry of Electronics and Information Technology
- Key partners of UMANG - Employee Provident Fund Organization, Employee State Insurance Corporation, Ministries of External Affairs, Health, NPPA, DAR&PG, Education, Agriculture, Animal Husbandry, Staff Selection Commission (SSC) and senior Officers from the Cabinet Secretariat were also present during the conference.

UMANG's international version

- In coordination with Ministry of External Affairs, UMANG's international version was launched for select countries that include USA, UK, Canada, Australia, UAE, Netherlands, Singapore, Australia and New Zealand.
- It will help Indian international students, NRIs and Indian tourists abroad, to avail Government of India services, anytime.
- It will also help in taking India to the world through 'Indian Culture' services available on UMANG and create interest amongst foreign tourists to visit India.
- The international version of the UMANG App can be downloaded by going to the Play Store of specific countries.



UMANG

- To mark the milestone of 2000+ services on UMANG and its 3 year journey, the Ministry launched an e-Book which presents major milestones of UMANG and major services available on UMANG App classified into various categories for different segments of society

UMANG Awards

- The Ministry unveiled the newly instituted UMANG Awards for Partner Departments of Centre and States based on the highest number of transactions across services.
- In the Central Department category, EPFO was bestowed the Platinum Partner award, followed by DigiLocker as the Gold Partner while ESIC and Bharat Gas services were declared the Silver Partner
- The Bronze Partner award was announced for HP Gas, Doordarshan, National Consumer Helpline, CBSE, Pradhan Mantri Awas Yojana-Urban, Jeevan Pramaan & Jan Aushadhi Sugam.

UMANG mobile app (Unified Mobile Application for New-age Governance)

- The **UMANG mobile app (Unified Mobile Application for New-age Governance)** is a Government of India all-in-one single, unified, secure, multi-channel, multi-lingual, multi-service mobile app. providing access to high impact services of various Government of India Departments and State Governments.
- UMANG has now grown to provide 2039 services (373 from 88 Central departments, 487 from 101 departments of 27 States and 1,179 services for utility bill payments)

Agriculture & Farmers Welfare: Sahakar Pragya

Relevance IN – Prelims (about Sahakar Pragya of the National Cooperative Development Corporation (NCDC) + Mains (GS II Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

What's the NEWS

- The Ministry of Agriculture and Farmers Welfare, unveiled **Sahakar Pragya**.
- The Sahakar Pragya initiative launched by the National Cooperative Development Corporation (NCDC).

Know! about Sahakar Pragya initiative

- As part of the initiative, 18 regional training centres and 45 training modules for primary cooperatives were launched.
- The NCDC will run these training centres across the country, along with the Laxmanrao Inamdar National Academy for Cooperative Research and Development (LINAC).
- The training modules aim to impart knowledge and organisational skills and attempt to prepare the primary cooperative societies across the country to be able to play a big role in the government's AtmaNirbhar Bharat initiative.
- The objective is to empower farmers in primary cooperative societies through dedicated and innovative training programmes.
- The 45 dedicated training modules would equip the cooperative societies to run their affairs in professional business terms of market economy
- *Sahakar Pragya* is part of a series of initiatives taken up by NCDC to strengthen India's cooperative societies.
- Earlier, the central body had launched the Sahakar Cooptube NCDC Channel with an aim to involve youngsters in the cooperative movement.

Know! the role of Cooperatives

- India boasts a huge network of over 8.5 lakh cooperative societies with about 290 million members. Nearly 94% of the farmers in India are members of at least one cooperative society.
- Cooperatives lend strength to farmers to minimize risks in agriculture and allied sectors and act as shield against exploitation by unscrupulous traders.

Know! about NCDC and steps taken by NCDC to promote cooperatives

- NCDC has been created for the purpose of planning and promoting programmes for the production, processing, marketing, storage, export and import of agricultural produce, foodstuffs, industrial goods, livestock, certain other commodities and services like hospital & healthcare and education etc. on cooperative principles.

- It extends financial assistance to cooperatives at all the three tiers, Primary, District and Apex / Multi-State.
- In the series of initiatives by NCDC had earlier launched the **SahakarCooptube NCDC Channel** with the aim to involve youth in the cooperative movement.
- NCDC has earlier launched various initiatives and programmes like SAHAKAR-22 to develop cooperatives in Focus 222 districts, including aspirational districts, Nurturing Primary Level Cooperatives, SAHAKAR MITRA – Scheme on Internship Programme, YUVA SAHAKAR- Start Up Scheme in Cooperatives and AYUSHMAN SAHAKAR- for creation of healthcare infrastructure and services.

Bilateral Relations: India, US extend nuclear energy partnership by 10 more years

Relevance IN – Prelims (about the nuclear energy partnership + about GCNEP) + Mains (GS II bilateral relations)

What's the NEWS

- India and the United States have extended the Memorandum of Understanding for cooperation on nuclear energy for 10 more years.
- Marking the tenth year of cooperation between the United States and India at the Global Centre for Nuclear Energy Partnership (GCNEP) and the signing of the extension, for an additional ten years
- India signed GCNEP on November 7, 2010
- The joint statement also recognizing India's important commitment in 2010 to establish the GCNEP with a vision to promote safe, secure, and sustainable nuclear energy for the service of mankind through global partnership.



Know! about the MoU highlights

- India and the US, recognizing and appreciating the strength of the enduring partnership between the two countries on matters of security and reaffirming the important contributions of the U.S.-India nuclear and radiological security cooperation
- Both the countries have committed to promote cooperation on initiatives aimed at giving an impetus to nuclear safety and security, research and development in nuclear science and technology under various schools of GCNEP
- They will deepen the dialogue on nuclear and other radioactive material security by collaborating on advanced projects in the field (e.g. future technology), with the goal of sharing the outcomes in the international arena.
- The countries will include agencies of both Governments and relevant entities, as appropriate, involved in nuclear and radioactive material security, in order to ensure that the full spectrum of perspectives are shared.
- Both countries will build on the international recognition of the GCNEP and reinforce that the two countries are partners for nuclear and radioactive material security by jointly developing and /or delivering trainings and other capacity-building opportunities for regional and international partners, including online content

Know! more about GCNEP

- Government of India has approved the establishment of Global Centre for Nuclear Energy Partnership (GCNEP) near Bahadurgarh, District Jhajjar, Haryana, in September 2010.
- GCNEP is the sixth R&D unit under the aegis of Department of Atomic Energy (DAE).

Aim and objective of GCNEP

- To conduct research, design and development of nuclear systems that are intrinsically safe, secure, proliferation resistant and sustainable.
- To organize training, seminars, lectures and workshops on topical issues by Indian and International experts, in order to develop a pool of trained human resource.

- To promote global nuclear energy partnership through collaborative research and training programs.
- GCNEP will help in capacity building, in association with the interested countries and the IAEA, involving technology, human resource development, education & training and giving a momentum to R&D in enlisted areas.
- The main objectives of the centre include mark Development of enhanced nuclear safeguards to effectively and efficiently monitor nuclear materials and facilities.
- Promoting the development of advanced, more proliferation resistant nuclear power reactors.
- Training manpower in the field of Nuclear Security and Radiological Safety.
- Educating in the field of Advanced Nuclear Energy Systems, Isotopes and Radiation Technologies, nuclear forensic.
- Establishing accreditation facilities for radiation monitoring.

The centre will house following 5 schools to carry out its objectives:

1. School of Advanced Nuclear Energy System Studies (SANESS)
 2. School of Nuclear Security Studies (SNSS)
 3. School on Radiological Safety Studies (SRSS)
 4. School of Nuclear Material Characterization Studies (SNMCS)
 5. School for Studies on Applications of Radioisotopes and Radiation Technologies (SARRT)
- In addition, DAE Outreach Programme Cell will also be setup for publicity of technologies developed by DAE for rural areas.

Bilateral Relations: India To Build Shahtoot Dam, Announces 100 High-impact Projects in Afghanistan



Relevance IN – Prelims (about Afghanistan 2020 Conference -highlights + about the Shahtoot Dam) + Mains (GS II bilateral relations)

What's the NEWS

- During the Afghanistan 2020 Conference, MEA Jaishankar announced an agreement with Afghanistan for building the Shahtoot Dam, which would provide safe drinking water to 2 million residents of Kabul city.

Afghanistan 2020 Conference

- India will also launch a new phase of over 100 high-impact community projects in Afghanistan worth USD 80 million (Rs 592 crore) as the country's development portfolio in the war-ravaged nation has reached over USD 3 billion (Rs 22,200 crore) so far. Also Read - Indian Navy Inducts Two American Predator Drones On Lease, Can Be Deployed On China Border
- India had concluded with Afghanistan an agreement for the construction of the Shatoot dam, which would provide safe drinking water to 2 million residents of Kabul city
- India had earlier built the 202-km Phul-e-Khumri transmission line that provided electricity to Kabul city.
- EAM also announced launch of phase four of the High-Impact Community Development Projects in Afghanistan, which envisages more than 100 projects worth USD 80 million that India would undertake in Afghanistan

India – Afghanistan relations

- India's development portfolio in Afghanistan has to-date amounted to over USD 3 billion.
- The minister highlighted that no part of Afghanistan today is untouched by the 400 plus projects that India has undertaken in all 34 of Afghanistan's provinces. More than 65,000 Afghan students have also studied in India
- India has been keenly following the evolving political situation after the US signed a peace deal with the Taliban in February. The deal provided for the withdrawal of American troops from Afghanistan, effectively drawing curtains to Washington's 18-year war with Taliban in the country.

Governance: PM Modi chairs 33rd PRAGATI meeting

Relevance IN – Prelims (about PRAGATI) + Mains (GS II good governance)

What's the NEWS

- Prime Minister chaired the PRAGATI meeting . It marked Prime Minister's thirty-third interaction through PRAGATI - the ICT based multi-modal platform for Pro-Active Governance and Timely Implementation, involving Central and State governments.

Meeting highlights

- In PRAGATI meeting, multiple projects, grievances and programmes were reviewed.
- The projects taken up were of the Ministry of Railways, MORTH, DPIIT and Power Ministry. These projects, with a total cost of Rs 1.41 lakh crore, were related to ten states and union territories,
- In the previous 32 such meetings, a total of 275 projects worth Rs 12.5 lakh crore have been reviewed, along with 47 programmes/schemes and grievances across 17 sectors have been taken up.

PRAGATI (Pro-Active Governance And Timely Implementation)

- It is aimed at starting a culture of Pro-Active Governance and Timely Implementation.
- It is also a robust system for bringing e-transparency and e-accountability with real-time presence and exchange among the key stakeholders. The platform was launched on March 25, 2015.
- It is a multi-purpose and multi-modal platform that is aimed at addressing common man's grievances, and simultaneously monitoring and reviewing important programmes and projects of the Government of India as well as projects flagged by State Governments.
- The PRAGATI platform uniquely bundles three latest technologies: Digital data management, video-conferencing and geo-spatial technology.
- It also offers a unique combination in the direction of cooperative federalism since it brings on one stage the Secretaries of Government of India and the Chief Secretaries of the States.
- It is a three-tier system (PMO, Union Government Secretaries, and Chief Secretaries of the States)
- Prime Minister will hold a monthly programme where he will interact with the Government of India Secretaries, and Chief Secretaries through Video-conferencing enabled by data and geo-informatics visuals;
- Issues to be flagged before the PM are picked up from the available database regarding Public Grievances, on-going Programmes and pending Projects.
- The design is such, that when PM reviews the issue he should have on his screen the issue as well as the latest updates and visuals regarding the same.

Bilateral Relations: India-Italy Virtual Summit

Relevance IN – Prelims (about the summit highlights) + Mains (GS II bilateral relations)

What's the NEWS

- A Virtual Bilateral Summit between Prime Minister Shri Narendra Modi and Prime Minister of Italy Prof. Giuseppe Conte was held on 6th November, 2020.

Know! about the summit highlights

- The Summit provided an opportunity to the two leaders to comprehensively review the broad framework of the bilateral relationship.

- The two leaders reaffirmed their commitment to strengthen cooperation against common global challenges, including the Covid-19 pandemic.
- On regional and international issues, both sides agreed to coordinate closely at multilateral fora especially G-20. Italy will assume the Presidency of G-20 in December 2021 followed by India in 2022.
- Together, India and Italy will be part of the G20 Troika from December, 2020. India welcomed Italy's decision to join ISA as soon as the ratification process is completed.
- 15 MoUs/Agreements in various sectors such as energy, fisheries, ship building, design etc. were signed coinciding with the Summit.



International Organisations: 20th Summit of SCO Council of Heads of State



Relevance IN – Prelims (about 20th Summit of SCO -highlights) + Mains (GS II. Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests)

What's the NEWS

- 20th Summit of SCO Council of Heads of State was held on November 10, 2020 (in Video Conference Format).

Know! about the summit highlights

- The Meeting was chaired by the President of the Russian Federation Mr. Vladimir Putin. Prime Minister Shri Narendra Modi led the Indian delegation.
- Other SCO Member States were represented by their Presidents, while India and Pakistan were represented at the level of Prime Minister.
- Other participants were: Secretary General of the SCO Secretariat, Executive Director of the SCO Regional Anti-Terrorist Structure, the Presidents of the **four Observers (Afghanistan, Belarus, Iran, Mongolia) of the SCO**.
- This was the first SCO Summit held in Virtual Format and third meeting that India participated after becoming a full member in 2017.

- President Emomali Rahmon of the Republic of Tajikistan will assume the chairmanship of SCO next year

Prime Minister address (highlights)

- The P.M highlighted the imperative of a **reformed multilateralism** to meet the expectation of a world suffering from the social and financial after-effects of the pandemic.
- India, as a non-permanent member of the UNSC, beginning from 1 January 2021, will focus on the **theme of 'reformed multilateralism' to bring about desirable changes in global governance.**
- India's brave soldiers participated in about **50 UN peacekeeping missions** and **India's Pharma industry** supplying essential medicines to more than 150 countries during the pandemic.
- India's firm commitment towards strengthening connectivity in the region with initiatives like **International North-South Transport Corridor, Chabahar Port and Ashgabat Agreement.**
- To support observing the 20th anniversary of SCO in 2021 as the **"SCO Year of Culture"** and spoke of India's own initiatives to hold the first **SCO exhibition on Shared Buddhist Heritage to be organized by National Museum of India**, SCO Food Festival in India next year and the translation of Ten regional language literary works into Russian and Chinese.
- India has also proposed to set up a **Special Working Group on Innovation and Startups and a Sub Group on Traditional Medicine within SCO.**

Know! about SCO

- The Shanghai Cooperation Organisation (SCO), or Shanghai Pact, is a Eurasian political, economic, and security alliance
- The creation of which was announced on 15 June 2001 in Shanghai, China by the leaders of **China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, and Uzbekistan**; the Shanghai Cooperation Organisation Charter, formally establishing the organisation, was signed in June 2002 and entered into force on 19 September 2003.
- The original five nations, with the exclusion of Uzbekistan, were previously members of the Shanghai Five group, founded on 26 April 1996.
- Since then, the organisation has expanded its membership to eight countries when India and Pakistan joined SCO as full members on 9 June 2017 at a summit in Astana, Kazakhstan.
- The Heads of State Council (HSC) is the supreme decision-making body in the SCO, it meets once a year and adopts decisions and guidelines on all important matters of the organisation.

Health: Indian Railways engages RailTel to implement an HMIS across its health facilities

Relevance IN – Prelims (about HMIS + RailTel) + Mains (GS II Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources)

What's the NEWS

- Indian Railways with the objective of bringing hospital management on a single architecture to prevent pilferage and making operations seamless has entrusted **RailTel Corporation of India Limited ("RailTel") with implementation of hospital management information system ("HMIS")** an integrated clinical information system for its 125 health facilities and 650 polyclinics across India for improved hospital administration and patient healthcare.
- The features of the software extend from customizing clinical data according to the departments and laboratories, multi hospital feature that provide cross consultation, seamless interface with medical and other equipment's and the patients will have the benefit of accessing all their medical records on their mobile device.

Know! about Hospital management information system(HMIS)

- **HMIS** is implemented in a **hospital** for managing patient care and related administrative functions. It has the potential to improve the efficiency of overall **system** through automation and generates necessary reports for managing operations, performance, quality, planning, decision-making and reporting for projects.
- RailTel and Ministry of Railways have signed an MOU with regard to the modalities for execution of the work. The open source HMIS software is to be deployed over the cloud.

- The HMIS platform will be connected to the Unique Medical Identity System. A Centre of Excellence for Artificial Intelligence (AI) is underway which will drive these technological changes be it artificial intelligence, data analytics or app based services.
- HMIS has already been established by the implementation of the hospital management information system in South Central Railway and a pan India deployment is being considered in a phased manner.
- Traditional forms of record keeping has its own limitations and we believe that the integration of technology is the only way to achieve scale, cost efficiencies, ease of access besides other benefits.

Know! about RailTel

- RailTel, a “Mini Ratna (Category-I)” Central Public Sector Enterprise is an ICT provider and one of the largest neutral telecom infrastructure providers in the country owning a Pan-India optic fiber network on exclusive Right of Way (ROW) along Railway track. The OFC network covers all important towns & cities of the country and several rural areas.
- RailTel offers a diversified portfolio of ICT services and solutions such as MPLS- VPN, Leased line services, TPaaS, E-Office & Data Centre Services, large network hardware system integration, software and digital services.
- RailTel was incorporated on September 26, 2000 with the aim of modernizing the existing telecom system for train control, operation and safety and to generate additional revenues by creating nationwide broadband and multimedia network, laying optical fiber cable using the right of way along railway tracks.

Social Issues: New UN alliance to stave off ‘catastrophic food crisis’

Relevance IN – Prelims (about global alliance on Food Coalition + about FAO) + Mains (GS II Issues relating to poverty and hunger)

What’s the NEWS

- Food and Agriculture Organization (FAO) of the United Nations launched a Food Coalition on November 5, 2020

Know! about the global alliance on Food Coalition

- FAO Director virtually inaugurated it along with the Prime Minister of Italy, and the Deputy Prime Minister of the Netherlands
- The two countries have already pledged and delivered financial resources and technical support to the coalition. Italy has supported the alliance with an initial contribution of \$1.2 million.
- Proposed by Italy and led by FAO, the global alliance aims to help countries get back on track to achieve the UN-mandated Sustainable Development Goals by 2030, especially the ones on ending hunger and poverty. More than 30 countries have already expressed interest in joining the coalition.
- The alliance would work as a network of networks and a multi-stakeholder coalition for a unified global action to support measures to ensure food access and increase the resilience of agricultural food systems in response to COVID-19.
- The alliance involves a devoted trust fund and a web-based hub allowing participants to access a basket of project-focused information and data, as well as the funding and types of assistance needed for many on-the-ground projects.

The Food Coalition would work towards:

- Mobilising resources, expertise and innovation
- Advocating for a joint and coordinated COVID-19 response
- Promoting dialogue and exchange of knowledge and expertise among countries
- Working towards solution-oriented plans and programmes
- Expanding international cooperation and partnership for a longer term impact

The Food and Agriculture Organization of the United Nations (FAO)

- It is a specialized agency of the United Nations that leads international efforts to defeat hunger and improve nutrition and food security.
- The FAO is headquartered in Rome, Italy and maintains regional and field offices around the world, operating in over 130 countries.

- It helps governments and development agencies coordinate their activities to improve and develop agriculture, forestry, fisheries, and land and water resources.
- It also conducts research, provides technical assistance to projects, operates educational and training programs, and collects data on agricultural output, production, and development.
- Composed of 197 member states, the FAO is governed by a biennial conference representing each member country and the European Union, which elects a 49-member executive council.

International Organisations: 15 Asian nations sign China-backed RCEP trade pact

Relevance IN – Prelims (about RCEP agreement)+ Mains (GS II Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests)

What's the NEWS

- Asian nations sign RCEP, a China-backed trade pact, excluding India and US
- Fifteen countries signed a sprawling Asian trade deal seen as a huge coup for China in extending its influence.
- ***The RCEP may further augment China's position as an economic partner in Southeast Asia, Japan and Korea, putting the world's second-biggest economy in a better position to shape***

Know! about RCEP

- The Regional Comprehensive Economic Partnership (RCEP) -- which includes 10 Southeast Asian economies along with China, Japan, South Korea, New Zealand and Australia -- is the world's largest trade pact in terms of GDP
- It aims in coming years to progressively lower tariffs across many areas.
- The deal marks the first time rival East Asian powers China, Japan and South Korea have been in a single free trade agreement.
- The pact will take effect once enough participating countries ratify the agreement domestically within the next two years
- These 15 countries had left a rival Asia-Pacific grouping under incumbent US president Donald Trump.
- The deal was signed on the sidelines of an online ASEAN summit held as Asian leaders address tensions in the South China Sea and tackle plans for a post-pandemic economic recovery in a region where US-China rivalry has been rising.
- The signing of RCEP will be a further blow to the group pushed by former US president Barack Obama, which his successor Trump exited in 2017.
- The United States is absent from both RCEP and the successor to the Obama-led Trans-Pacific Partnership (TPP)

How it will benefit China

- RCEP could also help Beijing cut its dependence on overseas markets and technology.
- The RCEP may cement China's position more firmly as an economic partner with Southeast Asia, Japan and Korea, putting the world's second-biggest economy in a better position to shape the region's trade rules.
- It will account for 30% of the global economy, 30% of the global population and reach 2.2 billion consumers



Health: Global Prevention Coalition (GPC) for HIV Prevention



Relevance IN – Prelims (about GPC and steps taken by India for HIV Prevention)

What's the NEWS

- The Union Minister for Health and Family Welfare digitally addressed the Ministerial meeting of the Global Prevention Coalition (GPC) for HIV Prevention

Global HIV Prevention Coalition (GPC)

- Hosted by UNAIDS and UNFPA on behalf of the Global HIV Prevention Coalition (GPC), the conference this year holds significance in achieving the 2016 UNGA commitment to end AIDS by 2030.
- Member States of GPC had agreed to reduce new adult HIV infections by 75% at the end of 2020 from 2010 levels.
- Global AIDS response has shown remarkable success in reducing new infections, improving access to prevention services for key population and treatment services for People living with HIV (PLHIV), reducing AIDS related mortality

HIV epidemic prevention - steps taken by India

- The provision of generic Anti-Retroviral drugs (ARV) from India to the world has had a critical impact in controlling the HIV epidemic.
- India's unique HIV prevention model which is centered around the concept of 'Social Contracting' through which the Targeted Interventions (TI) programme is implemented
- With support from Non-Government Organizations, the programme is aimed at providing outreach, service delivery, counselling & testing and ensuring linkages to HIV care.
- India had revamped its Targeted Intervention (TI) programme to focus on hard-to-reach populations to keep its commitments- People living in prisons and other closed settings were considered as priority populations and interventions launched were gradually scaled up since 2016
- The HIV Counselling & Testing Services (HCTS), Community based Screening of HIV for improving early diagnosis were also ramped up; the coverage of testing for HIV across the country was increased to achieve the Elimination of Mother to Child Transmission of HIV.
- Under the Test and Treat Policy, approximately 50,000 PLHIV who were lost to follow-up were linked back to Anti-Retroviral Treatment services through 'Mission SAMPARK', while Viral Load Testing facilities have been scaled up from the existing ten public sector labs to 64 labs across the country.

Know! more about Global HIV Prevention Coalition (GPC)

- In 2017, a global coalition of United Nations Member States, donors, civil society organizations and implementers was established to support global efforts to accelerate HIV prevention.
- Membership includes the 25 highest HIV burden countries, UNAIDS Cosponsors, donors, and civil society and private sector organizations.

- The overarching goal of the Global HIV Prevention Coalition is to strengthen and sustain political commitment for primary prevention by setting a common agenda among key policy-makers, funders and programme implementers.
- It seeks to ensure accountability for delivering prevention services at scale in order to achieve the targets of the 2016 Political Declaration on Ending AIDS, including a 75% reduction in HIV infections towards fewer than 500 000 infections by 2020, and to ending the AIDS epidemic by 2030.

Bilateral Relations: Launch of RuPay card Phase-II in Bhutan

Relevance IN – Prelims (about RuPay card)

What's the NEWS

- A Virtual Ceremony for the joint launch of RuPay card Phase-II by Prime Minister of India and Prime Minister of Bhutan held on 20 November 2020.
- The Prime Ministers of India and Bhutan had jointly launched Phase-I of the project during the State Visit of Prime Minister to Bhutan in August 2019.
- The implementation of Phase-I of RuPay cards in Bhutan has enabled visitors from India to access ATMs and Point of Sale (PoS) terminals across Bhutan.
- Phase-II will **now allow Bhutanese card holders to access RuPay network in India.**
- India and Bhutan share a special partnership, anchored in mutual understanding and respect, reinforced by a shared cultural heritage and strong people to people links.
- The RuPAY card has already been launched by India in five countries– **UAE, Bahrain, Singapore, Saudi Arabia and Bhutan.**



Know! about RuPay card

- RuPay is a domestic card payment service conceived and launched by the National Payments Corporation of India (NPCI)
- The RuPay card is the first-of-its-kind Indian domestic debit and credit card payment network. It is accepted at ATMs, POS devices as well as the various e-commerce websites.
- The NPCI created the card as an alternative to Mastercard and Visa cards (as the Indian banks have to bear the high cost of affiliation with international card association schemes like Visa and Mastercard)
- It was created to fulfil the Reserve Bank of India's (RBI) vision of establishing a domestic, open and multilateral system of payments.
- RuPay facilitates electronic payment at all Indian banks and financial institutions.

A product of National Payments Corporation of India (NPCI)

RuPay is a product of NPCI, the umbrella organisation that powers retail payments in the country. The provision under the Payment and Settlement Systems Act, 2007, empowered the Reserve Bank of India (RBI) and Indian Banks' Association (IBA) to create a secure electronic payment and settlement system in India.

The nature of NPCI's initiatives and objectives includes it under the "Not for Profit Company" under the provisions of Section 25 of the Companies Act 1956 and more recently under the Section 8 of the Companies Act 2013. This was an initiative to build the necessary banking infrastructure required to propel India towards a 'less cash' economy. NPCI recognises the need for tech-driven innovations in the retail payments system to drive operational efficiencies among a larger Indian audience.

- Presently, RuPay cards are issued by more than 1,100 banks which includes Public Sector Banks, Private Sector Banks, Regional Rural and Co-Operative Banks.
- Its ten core promoter banks are State Bank of India, Punjab National Bank, Canara Bank, Bank of Baroda, Union Bank of India, Bank of India, ICICI Bank, HDFC Bank, Citibank and HSBC.

Defence: Capacity Building of BDA with Assistance by BRO

Relevance IN – Prelims (about the training + about the role of BRO) + Mains (GS II bilateral relations)

What's the NEWS

- **Bangladesh Army Approached BRO** to provide the necessary assistance in development of their National project on construction of roads along the border in Chittagong Hill Tracts.

Know! about the training programme

- A delegation of 06 personnel has arrived at Lokpriya Gopinath Bordoloi International Airport, Guwahati, Assam for 15 days training cum tour programme
- The delegates will participate in the training where various issues pertaining to planning, designing and construction of hill roads will be discussed
- Site visit to demonstrate various aspects of tunnel construction and use of new material/ technology in hill road construction is also planned.

Know! about BRO

- The **Border Roads Organisation (BRO)** (Indian army corps of engineers) develops and maintains road networks in India's border areas and friendly neighboring countries.
- BRO maintains operations in 19 states & three UTs (Andaman and Nicobar Islands, J&K and Laddakh), and neighboring countries
- The BRO operates and maintains over 32,885 kilometers of roads and about 12,200 meters of permanent bridges in the country.
- The Border Roads Organisation has been entirely brought under the Ministry of Defence.
- The BRO operates in 18 Projects namely: Arunank, Beacon, Brahman, Chetak, Deepak, Dantak, Himank, Hirak, Pushpak, Sampark, Setuk, Sewak, Shivalik, Swastik, Udayak, Vartak, Vijayak and sela tunnel.
- The Border Roads Organisation has acquired a leading role in the arena of infrastructure development in hilly terrain traversing from high altitude snow peaks in Leh Ladakh to low mountains in the state of Tripura, Mizoram and Nagaland.
- The Organisation has been an ambassador of peace and prosperity through developmental works in several neighbouring countries like Afghanistan, Tazakistan, Myanmar and Bhutan.

Social Issues: Safaimitra Suraksha Challenge across 243 Cities launched

Relevance IN – Prelims (about Safaimitra Suraksha Challenge + about NSKFDC + about DICCI + NIUA) + Mains (GS II Social issues – schemes for the vulnerable population of society + government policies and interventions + GS III infrastructure development)

What's the NEWS

- The Ministry of Housing and Urban launched the Safaimitra Suraksha Challenge
- It aims to ensure that no life of any sewer or septic tank cleaner is ever lost again owing to the issue of 'hazardous cleaning'.
- The Challenge, aptly launched on the occasion of World Toilet Day, is aimed at preventing 'hazardous cleaning' of sewers and septic tanks and promote their mechanized cleaning.
- The virtual event saw State/ Union Territory and city officials coming together to take a pledge on behalf of 243 cities to mechanize all sewer and septic tank cleaning operations by 30th April 2021, and gave their commitment to work towards preventing any deaths from hazardous entry.

Know! about the challenge

- The Challenge will focus extensively on creating citizen awareness on this critical issue along with infrastructure creation for mechanized cleaning and capacity building of workforce.
- A dedicated helpline number has been set up to register complaints and provide real-time solutions on desludging or sewer overflow.
- The actual on-ground assessment of participating cities will be conducted in May 2021 by an independent agency and results of the same will be declared on 15 August 2021.
- Cities will be awarded in three sub-categories – with population of more than 10 lakhs, 3-10 lakhs and upto 3 lakhs, with a total prize money of Rs 52 crores to be given to winning cities across all categories.
- The event saw the launch of a series of advisories prepared by Central Public Health and Environmental Engineering Organisation (CPHEEO), MoHUA.



Manual Scavengers

- The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act (2013) and various judgements of Hon'ble Supreme Court expressly prohibit hazardous cleaning, i.e. manual entry into a septic tank or sewer without protective gear and observing operating procedures.
- Despite this, recurring episodes of human fatalities among those engaged in cleaning of septic tanks and sewers, typically belonging to the economically disadvantaged and marginalized communities of society, continue to be an issue of concern.

Additional relevant info

National Safai Karmacharis Finance and Development Corporation (NSKFDC)

- It was set up in January 1997 as a non profit company under Ministry of Social Justice and Empowerment, Government of India to empower the Manual Scavengers, Safai Karamcharis and their dependents to break away their traditional occupation, depressed social condition and poverty and leverage them to work their own way up the social and economic ladder with dignity and pride

About Us

NSKFDC is implementing various loan and non-loan based schemes. Under Loan based schemes, NSKFDC provides financial assistance to the Safai Karamcharis, Scavengers and their dependants for any viable income generating schemes including sanitation related activities and for education in India and abroad.

Under non-loan based schemes, NSKFDC provides 100% grant for skill development training programme and stipend of Rs.1500 p.m. per candidate and Rs.50,000 for holding Job Fairs, Rs.30000 for Awareness Camps and Rs.25,000 for Workshops etc.

The schemes/programmes of NSKFDC are implemented through various State Channelizing Agencies (SCAs) nominated by the State Govts./UT Administrations, Regional Rural Banks (RRBs) and some Nationalised Banks.

The financial assistance is provided at concessional rates of interest to the SCAs/RRBs/Nationalised Banks for onward disbursement to the target group of NSKFDC.

Dalit Indian Chamber of Commerce and Industry (DICCI)

- The Dalit Indian Chamber of Commerce and Industry (DICCI) is an Indian association that promotes business enterprises for Dalits.
- It was founded in 2005 by Milind Kamble.
- DICCI has 29 state chapters and 7 international chapters. Members of DICCI come from diverse range of manufacturing, services and construction sectors.

- It organizes trade fairs and training camps among other things, and carries out promotional activities for the Dalit MSMEs.
- The organization is headquartered in Pune.
- In 2013, DICCI announced to float 500 crore venture capital fund to promote SC/ST entrepreneurs.
- SIDBI became first investor in the fund by announcing Rs 10 crore.

National Institute of Urban Affairs (NIUA)

- It is an institute for research, training and information dissemination in urban development and management in New Delhi, India.
- It was established in 1976 as an autonomous body under the Societies Registration Act.
- The Institute is supported by the Ministry of Urban Development, Government of India, State Governments, urban and regional development authorities and other agencies concerned with urban issues
- The Institute's policies and directions are determined by the Governing Council consisting of a President, who is appointed by the Government of India, two Vice-Presidents, three members of the Government of India in their ex officio capacity
- National Institute of Urban Affairs (NIUA) was tasked to bridge the gap between research and practice on issues related to urbanization and suggest ways and mechanisms to address urban challenges in the country.
- It has utilized its competencies in research, knowledge management, policy advocacy and capacity building to address urban challenges and continuously striving to develop sustainable, inclusive, and productive urban ecosystems in the country.
- It has emerged as a thought leader and knowledge hub for urban development in India and is sought out by both Indian and International organizations for collaborations and partnerships in India's urban transforming journey.

Government Schemes: Micro-Irrigation Fund (MIF)

Relevance IN – Prelims (about MIF and PMKSY) + Mains (GS III farmers welfare + GS II government initiatives)

What's the NEWS


- Micro Irrigation Fund with a corpus of Rs. 5000 crore created with NABARD was operationalised in 2019-20.
- Ministry of Agriculture and Farmers Welfare (MoA&FW), Government of India is the Nodal Ministry.
- The objective of the Fund is to facilitate the States in availing an interest subvented loan for expanding coverage of Micro Irrigation by taking up special and innovative projects and also for incentivising micro irrigation beyond the provisions available under PMKSY-Per Drop More Crop to encourage farmers to install micro irrigation systems.






Know! about Micro Irrigation

- Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW) has been playing a leading role for the promotion of improved irrigation methods like drip and sprinkler irrigation.
- DAC&FW launched centrally sponsored scheme on Micro Irrigation in 2005-06 which was subsequently converted as National Mission on Micro Irrigation in 2010-11.
- During 2014-15, the scheme was subsumed as On Farm Water Management component of National Mission for Sustainable Agriculture (NMSA) and further subsumed under Per Drop More Crop Component of PMKSY.

Micro Irrigation Fund (MIF) to Expand Irrigation Coverage

Cabinet approves ₹ 5000 cr. for Setting Up MIF with NABARD* under PMKSY**



-  To facilitate States in mobilising resources to expand micro irrigation coverage
-  To incentivise micro irrigation beyond the provisions available under PMKSY – PDMC***
-  ₹ 2000 cr. and ₹ 3000 cr. to be utilized during 2018-19 and 2019-20
-  To achieve annual target of about 2 Million hectare
-  Lending rate proposed at 3% lower than cost of raising the fund by NABARD

*National Bank for Agriculture and Rural Development
 **Pradhan Mantri Krishi Sinchayee Yojana
 ***Per Drop More Crop

The Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)

- The Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) was launched on 1st July, 2015 with the objective to achieve convergence of investments in irrigation sector at field level.
- The scheme aims at providing end-to-end solutions in irrigation supply chain, viz., water resources, distribution network, farm level applications and improving water use efficiency.
- PMKSY not only focuses on creating sources for assured irrigation, but also creating protective irrigation by harnessing rain water at micro level through 'Jal Sanchay' and 'Jal Sinchan'.
- Micro irrigation (MI) is an integral component of PMKSY to maximise water use efficiency at field level and ensuring 'Per Drop-More Crop' (PMKSY- PDMC).

Health: Ayushman Bharat Health & Wellness Centres (HWCs)

Relevance IN – Prelims (about AB-HWCs) + Mains (GS II Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources)

What's the NEWS

- India has crossed a landmark milestone on the journey of universal healthcare. More than 50,000 (50,025) Ayushman Bharat - Health and Wellness Centres (AB-HWCs) are now operational across the country.
- Aiming at providing Comprehensive Primary Health Care (CPHC) services to the communities closer to their homes, 1.5 lakh AB-HWCs are to be established by December 2022.
- This has led to improved access to affordable primary healthcare services for more than 25 crore people.

Know! all about Health & Wellness Centers (HWCs)

- Ayushman Bharat was launched in 2018 with its twin pillars of Health & Wellness Centers (HWCs) and Pradhan Mantri Jan Arogya Yojana (PMJAY) with bidirectional linkages between the two for providing the full range of services across the continuum of care.
- The first AB-HWC was launched on the 14th of April 2018 at Jhargla in Bijapur District of Chhattisgarh.
- The Health & Wellness Centers provide CPHC services to people and sustain the efforts for provision of reproductive, maternal, neonatal, child, adolescent and nutrition (RMNCH+A+N) services and control of communicable diseases.
- They also focus on disease prevention, especially for chronic and non-communicable diseases, wellness through community engagement and creating awareness about health lifestyles, appropriate nutrition and physical activities such as Yoga.
- The HWC team consists of a trained Community Health Officer, one or two Health Workers and 5-8 ASHAs.
- This team has well defined tasks which intend to deliver public health functions and primary health care by bringing health-care services closer to the community.

eSanjeevani platform

- HWCs also provide a strong backbone for the implementation of the eSanjeevani platform of Health Ministry which includes the eSanjeevani Patient-to-Doctor OPD and eSanjeevani-HWC which provides Doctor-to-Doctor teleconsultation service.



- The eSanjeevani-HWC was rolled out in November 2019. It is to be implemented in all the 1.5 lakh Health and Wellness Centres in a 'Hub and Spoke' model, by December 2022.
- States need to set up dedicated 'Hubs' in Medical Colleges and District hospitals to provide tele-consultation services to 'Spokes', i.e. Health & Wellness Centres (HWC).

Bilateral Relations: India-Luxembourg hold first summit in two decades

Relevance IN – Prelims (summit takeaways) + Mains (GS II bilateral relations)

What's the NEWS

- India and Luxembourg signed three agreements to deepen cooperation in the financial sectors and further vowed to look at new opportunities for expanding trade and business ties as the two countries held a summit after a gap of two decades.

Know! about the agreements signed

- The agreements included one between India International Exchange and Luxembourg Stock Exchange that will provide for cooperation in financial services industry.
- Another pact was signed between the State Bank of India and the Luxembourg Stock Exchange for similar cooperation.
- The issue of long-pending free trade agreement between India and the European Union figured in the talks
- A high-level mechanism is going to examine the long-pending matter as decided at the India-EU summit.
- The leaders expressed their determination to promote effective and reformed multilateralism and a rules-based multilateral order with the United Nations (UN) and the World Trade Organisation (WTO) at its core

Know! about India – Luxembourg relations

- Luxembourg is one of the most important financial centres globally. Several Indian companies have raised capital by issuing Global Depositary Receipts (GDRs) at the Luxembourg Stock Exchange.
- Several Luxembourg-based investment funds hold substantial banking and asset management market share in portfolio investments in India.
- Luxembourg is a key country in the European Union (EU) and it is the third largest source of Foreign Portfolio Investments (FPI) investments in India after US and Mauritius accounting for approximately 8.5 per cent of these investments.

International Organisations: G20 Summit

Relevance IN – Prelims (about G20 summit highlights + proposed new global index) + Mains (GS II international relations)

What's the NEWS

- Prime Minister Narendra Modi called for a new global index based on transparency in governance and the creation of a vast talent pool.

Know! about the new global index

- A new global index for the post-Corona world that comprises four key elements – creation of a vast talent pool; ensuring that technology reaches all segments of the society; transparency in systems of governance; and dealing with Mother Earth with a spirit of trusteeship”.
- Based on this, the G20 can lay the foundation of a new world
- There is a need to develop a new global index based on talent, technology, transparency and trusteeship towards the planet
- “Multi-skilling and re-skilling to build a talent pool will enhance dignity and resilience of our workers.



- Value of new technologies should be measured by their benefit to humanity.”

Know! about 15th summit of G20

- The G20 virtual summit hosted by Saudi Arabia
- The two-day G20 leaders’ summit brought together the world’s largest economies that make up 85 per cent of the global GDP, and is expected to lay the foundations of an inclusive, resilient, and sustainable recovery from the Covid-19 crisis.
- Heads of State/Government of 19 member countries, the EU, and other invited countries and international organisations, attended the summit.
- The 15th summit of G20 leaders will culminate in the adoption of the Leaders’ Declaration, and with Saudi Arabia passing on the presidency to Italy. India will host the G20 summit in 2022.

Government Schemes: UNDP and Invest India launch the SDG Investor Map for India

Relevance IN – Prelims (about Investment Opportunities Areas – objective and benefits + about Invest India) + Mains (GS II Government policies and interventions)

What’s the NEWS

- United Nations Development Program and Invest India have launched the SDG Investor Map for India, laying out 18 Investment Opportunities Areas (IOAs) in six critical SDG enabling sectors, that can help India push the needle forward on Sustainable Development.
- Invest India is pleased to have partnered with UNDP India to develop the first-ever ‘SDG Investor Map for India’.

Highlights of the SDG Investor Map:

- Of the 18 IOAs identified, 10 are already mature investable areas that have seen robust Private Equity and Venture Capital activity, and feature companies that have been able to unlock scale and demonstrate profitability. The remaining eight IOAs are emerging opportunities, which have seen traction from early-stage investors.
- The observations from the map present a strong case for investing in SDG enabling sectors and IOAs, **bridging the gap between high-level development targets and the need for commercially viable returns.**
- By mapping the overlaps and gaps between public sector priorities and private sector interest, the SDG Investor Map lays out pathways that can bring together private-sector investment and public sector support for 6 SDG-enabling sectors including **Education, Healthcare, Agriculture & Allied Activities, Financial Services, Renewable Energy & Alternatives and Sustainable Environment.**

Know! about Invest India

- Invest India is the National Investment Promotion and Facilitation Agency of India, set up as a non-profit venture under the aegis of Department of Industrial Policy & Promotion, Ministry of Commerce and Industry, Government of India.
- It facilitates and empowers all investors under the ‘Make in India’ initiative to establish, operate and expand their businesses in India.
- Invest India is envisaged as a one stop shop specially created to attract and retain high quality investments into India.
- It provides sector-and state-specific inputs, and hand-holding support to investors through the entire investment cycle, from pre-investment, decision-making to after-care.
- Invest India provides comprehensive facilitation to investors interested in India, including strategic business advisory, policy guidance, location assessment, issue redressal and expansion support.



Governance: Digitised online Human Resource Management System (HRMS) launched

Relevance IN – Prelims (about HRMS)

What's the NEWS

- Indian Railway has launched completely digitized online Human Resource Management System (HRMS).
- Human Resource Management System (HRMS) is a high thrust project for Indian Railways to leverage improved productivity & employee satisfaction.
- It is a move to improve efficiency and productivity of Railway system and a step towards transforming India into a digitally empowered society and knowledge economy.

Know! about HRMS

- HRMS is expected to create a big impact on the functioning of all the employees and will make them more tech savvy.
- Employee Self Service (ESS) module enables railway employees to interact with various modules of HRMS including communication regarding change of data.
- Provident Fund (PF) Advance module enables Railway employees to check their PF balance and apply for PF advance online.
- Advance processing will be online and employees will also be able to see the status of their PF application online.
- Settlement module digitizes the entire settlement process of retiring employees. Employees can fill their settlement / pension booklet online. Service details are fetched online and pension is processed online completely.
- This will eliminate use of paper and it also facilitates monitoring for timely processing of settlement dues of retiring employees.

Government Schemes: Master Training of Training (ToT) Programme

Relevance IN – Prelims (about Master Training of Training (ToT) Programme) + Mains (GS II Social issues)

What's the NEWS

- Ministry of Tribal Affairs conducted online **3 day Master Training of Training (ToT) Programme** from 24th– 26th November 2020 in collaboration with Indian Institute of Public Administration (IIPA), United Nations Development Programme (UNDP) and SCSTRTI, Odisha.
- The 100 Master Trainers and Trainers from Art of Living Foundation, Jharkhand would further develop the capacities of the elected tribal representatives of the Gram Panchayats and their functionaries in 170 tribal dominated villages of Jharkhand. .

Know! more about the programme

- The National level Programme for Capacity Building Programme for ST PRI Members was launched by the Union Minister of Tribal Affairs Shri Arjun Munda in February 2020.
- Arjun Munda and Sri Sri Ravi Shankar had jointly launched program in Jharkhand for Strengthening of PRIs' in 5 districts covering 30 Gram Panchayats and 150 villages.
- The capacity building of PRI representatives **initiated by MoTA in partnership with IIPA, UNDP and State TRIs** will be of great help in bridging the development gaps among communities and regions.
- This will help in effective and better implementation of various developmental and welfare programmes and substantially improve the expected outcomes through inclusive development.
- For smooth conduct of the training programmes and to ensure quality across the States, Ministry of Tribal Affairs (MoTA), in collaboration with TRI Odisha, IIPA and UNDP has developed **Common Training Framework** covering the key functions, roles & responsibilities of Elected Representatives, Rights of tribal communities and flagship programmes for tribal development implemented by Govt. of India.



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GENERAL STUDIES III

**Science & Technology Economic
Developments, Biodiversity,
Environment, Internal Security and
Disaster management**

Science & Technology: VAIBHAV Summit

Relevance IN – Prelims (about the summit highlights) + Mains (GS III awareness in the field of science and technology – steps taken by the government)

What's the NEWS

- The Prime Minister inaugurated the Vaishwik Bharatiya Vaigyanik (VAIBHAV) Summit, a global virtual summit of **overseas and resident Indian researchers and Academicians** on Gandhi Jayanti, 02nd October 2020 which concluded on the occasion of Sardar Vallabhbhai Patel Jayanti, 31st October 2020.



Know! the summit highlights

- About 2600 overseas Indians registered for the summit online. About 3200 panelists and about 22,500 academicians and scientists from India and overseas participated in this month-long series of webinars.
- VAIBHAV has led the way in establishing research capability as an important avenue towards Aatmanirbhar Bharat.
- The summit has proposed a comprehensive roadmap leveraging the expertise and knowledge of global Indian researchers for addressing emerging challenges for universal development.
- The goal is to create a broader ecosystem of knowledge and innovation in the country through global interactions, for India and the world.
- VAIBHAV has created an interactive and facile mechanism in the Cyberspace, and has promoted collaboration and the development of leadership.
- VAIBHAV deliberations were held under a structured framework of many areas and subjects.
- This summit had many firsts in the history of academic and scientific conferences.
- Among panelists, 45% were overseas Indians and 55% were resident Indian academicians and scientists.
- Overall Indian diaspora from 71 countries participated in this summit.
- This is one of its kind initiative in the country, where such a mammoth scale of scientific discussions was undertaken on wide range of topics.
- The Summit intended to “create an ideal research ecosystem, merging tradition with modernity to create prosperity”.

Economy: Remittances to India to drop by 9% in 2020: World Bank report

Relevance IN – Prelims (about World Bank's Migration and Development report highlights)

What's the NEWS

- India followed by China, Mexico, the Philippines, and Egypt continue to be the top five countries** in 2020 to receive foreign remittances
- Remittances to India would fall this year by nine per cent to USD 76 billion due to the ongoing coronavirus pandemic and global economic recession.
- As the COVID-19 pandemic and economic crisis continues, the amount of money migrant workers send home is projected to decline 14 per cent by 2021 compared to the pre-COVID-19 levels in 2019

World Bank's Migration and Development report highlights

- Remittance flows to low and middle-income countries (LMICs) are projected to fall by 7 per cent to USD508 billion in 2020, followed by a further decline of 7.5 per cent to USD 470 billion in 2021.
- The declines in 2020 and 2021 will affect all regions, with the **steepest drop expected in Europe and Central Asia** (by 16 per cent and 8 per cent, respectively), followed by East Asia and the Pacific (11 per cent

and 4 per cent), the Middle East and North Africa (both 8 per cent), Sub-Saharan Africa (9 per cent and 6 per cent), **South Asia (4 per cent and 11 per cent)**, and Latin America and the Caribbean (0.2 per cent and 8 per cent)

- This year, for the first time in recent history, the stock of international migrants is likely to decline as new migration has slowed and return migration has increased.
- Return migration has been reported in all parts of the world following the lifting of national lockdowns which left many migrant workers stranded in host countries.
- Rising unemployment in the face of tighter visa restrictions on migrants and refugees is likely to result in a further increase in return migration

Government Schemes: Cabinet approves Extension of Norms for Mandatory Packaging in Jute Materials

Relevance IN – Prelims (about the provisions of JPM act + steps taken by the government to promote jute industry) + Mains (GS III farmers welfare)

What's the NEWS

- The Cabinet Committee on Economic Affairs has approved that **100% of the foodgrains and 20% of the sugar** shall be mandatorily packed in diversified jute bags.
- The decision to pack sugar in diversified jute bags will give an impetus to the diversification of the jute industry.

Know! about JPM Act, 1987 and benefits of extending JPM

- The Government has expanded the scope of mandatory packaging norms under the Jute Packaging Material (JPM) Act, 1987.
- The government has been making concerted efforts for the development of jute sector; increasing the quality and productivity of raw jute, diversification of jute sector and also boosting and sustaining demand for jute products.
- The approval will benefit farmers and workers located in the Eastern and North Eastern regions of the country **particularly in the states of West Bengal, Bihar, Odisha, Assam, Andhra Pradesh, Meghalaya and Tripura.**
- Under the Jute Packaging Materials (Compulsory use in Packing Commodities) Act, 1987 (hereinafter “the JPM Act”), the Government is required to consider and provide for the compulsory use of jute packaging material in the supply and distribution of certain commodities in the interest of production of raw jute and jute packaging material and of persons engaged in the production thereof.
- Therefore, the reservation norms in present proposal would further the interest of domestic production of raw jute and jute packaging material in India

Know! the support provided to the Jute Sector by the government

- The jute industry is predominantly dependent on Government sector which **purchases jute bags** of value of more than Rs. 7,500 crore every year for packing foodgrains.
- This is done in order to sustain the core demand for the jute sector and to support the livelihood of the workers and farmers dependent on the sector.
- In order to improve the productivity and quality of raw jute through a carefully designed intervention, called the **Jute ICARE**, the Government has been supporting jute farmers by disseminating improved agronomic practices such as line sowing using seed drills, weed management by using wheel-hoeing and nail-weeders, distribution of quality certified seeds and also providing microbial assisted retting.
- **The Jute Corporation of India** has entered into MoU with **National Seeds Corporation** for distribution of 10,000 quintals of certified seeds on commercial basis also.
- The intervention of Technology up-gradation and distribution of certified seeds would increase the productivity and quality of jute crops and also increase the income of the farmers.
- To support diversification of jute sector, the National Jute Board has collaborated with National Institute of Design and a Jute Design Cell has been opened at Gandhinagar.

- Promotion of Jute Geo Textiles and Agro-Textiles has been taken up with the State Governments particularly those in the North Eastern region and also with departments such as Ministry of Road Transport and Ministry of Water Resources.
- To boost demand in the jute sector, Government of India has imposed Definitive Anti-Dumping Duty on import of jute goods from Bangladesh and Nepal with effect from 5th January, 2017.
- To promote transparency in jute sector, **Jute SMART**, an e-govt initiative was launched in December, 2016, providing an integrated platform for procurement of B-Twill sacking by Government agencies.
- Further, the JCI is transferring 100% funds to jute farmers online for jute procurement under MSP and commercial operations.

Miscellaneous: Fortification of Rice & its distribution through Public Distribution System

Relevance IN – Prelims (about Scheme on Fortification of Rice & its distribution through Public Distribution System) + Mains (GS II government interventions in various sectors + GS III inclusive development)

What's the NEWS

- To initiate the process of taking the country towards nutritional security, Department of Food & Public Distribution (DFPD) has been running a “Centrally Sponsored Pilot Scheme on Fortification of Rice & its distribution through Public Distribution System

Know! more about the scheme

- The Pilot Scheme has been approved for a period of three years beginning 2019-2020 with a total budget outlay of Rs.174.6 Crore.
- Fifteen State Governments have identified their respective districts (1 district per state) for implementing the Pilot Scheme.
- Already 5 states of Andhra Pradesh, Gujarat, Maharashtra, Tamil Nadu and Chhattisgarh have started the distribution of fortified rice in their respective identified districts.
- FCI has been asked to come up with a comprehensive plan for procurement and distribution of fortified rice in all the Districts of the country under Integrated Child Development Services (ICDS) & Mid-Day Meal (MDM) Scheme from 2021-2022.
- Special focus would be placed on supplying fortified rice to the 112 specially identified Aspirational Districts of the country.
- fortified rice in a phased manner from 2021-2022 onwards.

Know! about Fortification

- Fortification is the practice of deliberately increasing the content of an essential micronutrient, i.e. vitamins and minerals in a food, so as to improve the nutritional quality of the food supply and provide a public health benefit with minimal risk to health.
- Rice can be fortified by adding a micronutrient powder to the rice that adheres to the grains or spraying of the surface of ordinary rice grains in several layers with a vitamin and mineral mix to form a protective coating.
- Rice kernels can be fortified with several micronutrients, such as iron, folic acid and other B-complex vitamins, vitamin A and zinc.
- A staple food, or simply a staple, is a food that is consumed regularly and provides an important proportion of the energy (calories) and nutrient requirements.
- Its preparation is variable in different contexts and is closely linked to the most available foods in each setting.

Science and Technology: NCAER Report on “Estimating the economic benefits of Investment in Monsoon Mission and High Performance Computing Facilities

Relevance IN – Prelims (about NCAER report highlights+ about National Monsoon Mission+ Gramin Krishi Mausam Sewa

What's the NEWS

- India's investment of nearly 1,000 Crores in the National Monsoon Mission and High-Performance Computing (HPC) facilities would provide benefits worth rupees 50 thousand Crores to nearly 1.07 Crore below poverty line (BPL) agricultural households and 53 Lakh BPL fisher-folk households in the country.
- This has been affirmed by a report by the National Council of Applied Economic Research (NCAER), which is an independent, not for profit, economic policy research and think tank based in New Delhi.
- The NCAER report refers to economic benefits as direct monetary gains to crop farmers, livestock rearers, and fishermen in the country.

Report highlights

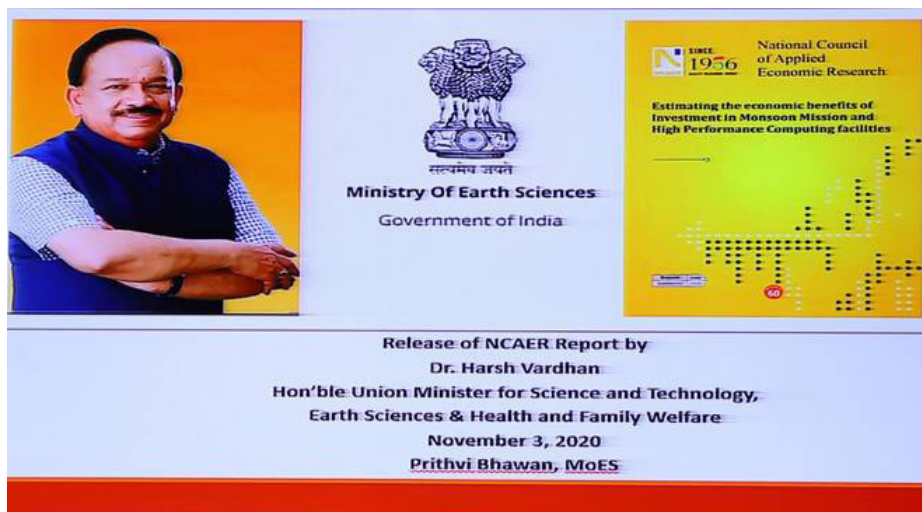
- NCAER study was based on a face-to-face survey of 6,098 respondents including 3,965 crop farmers, 757 marine fishermen, and 1,376 livestock owners.
- Along with this, responses from 2 lakh farmers were also collected through interactive voice response system (IVRS) to validate the findings of the face-to-face survey.
- IVRS is a technology that allows computers to interact with humans through the use of voice and input via keyboard.
- Data for both pre- and post-monsoon mission periods was incorporated which enabled analysis of the production and yield of major crops before and after the implementation of the National Monsoon Mission (which happened in 2015).
- A total of 173 districts (of the total 732 districts in India) across 16 states (of the total 29) were considered for the study to appropriately represent agro-climatic zones, rain-fed areas, coverage of major crops, and incidence of extreme weather events in the country.

National Monsoon Mission

- The National Monsoon Mission was launched by MoES in 2012 with an aim to develop a state-of-the-art, dynamic monsoon prediction system for short, medium, and long-range forecasts.
- The augmentation of the National Monsoon Mission with High-performance Computing facilities has helped the country in achieving a paradigm shift in weather and climate modeling for operational weather forecasts.
- The successful development of a Global Ensemble Forecast System for short and medium-range prediction at 12 kilometers and its operationalization in 2018 was made possible due to National Monsoon Mission and augmentation of the High-performance computing facilities from 1PetaFlop to 10PetaFlop.

Agro-climatic zone

- Agro-climatic zone refers to a geographical area with similar soil type, rainfall, temperature, and water availability.
- India is divided into 15 major agro-climatic zones, of which 10 zones that experience all monsoon events ranging from drought to floods have been covered by the NCAER study.

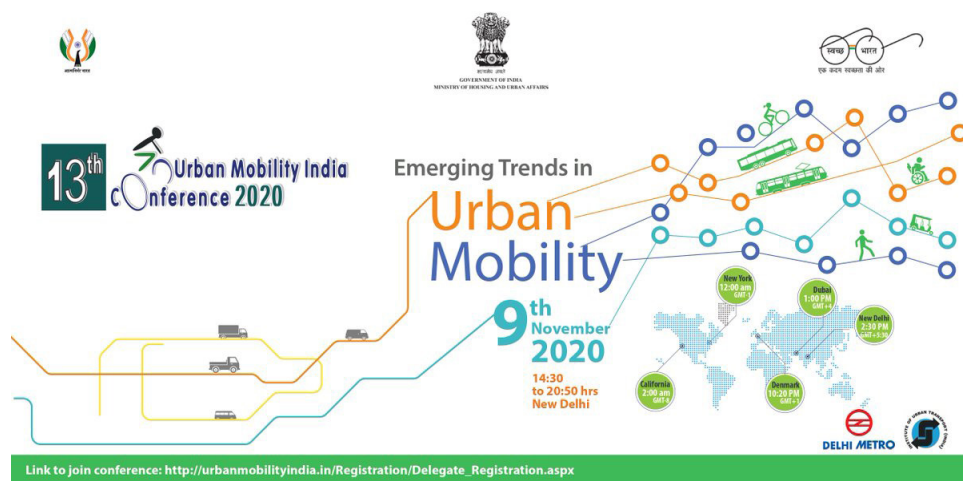


- By prioritising areas which were rain-fed, and important for livestock-based interventions, a total of 173 districts were chosen for the survey.
- Over 70 percent of all major crops grown in India were covered under the purview of the study. These include both kharif and rabi.

Gramin Krishi Mausam Sewa (GKMS)

- India Meteorological Department (IMD) in collaboration with the Indian Council of Agricultural Research (ICAR) provides district-level agro-meteorological advisories to farmers through 130 agro-met field units to nearly 40 million farmers under 'Gramin Krishi Mausam Sewa (GKMS)' twice a week for all the districts in the country.
- These advisories are communicated to farmers via mobile SMS, apps such as Meghdhoot, on IMD website, Kisan Portal, and conventional media such as television, radio, and newspapers.
- Farmers use these advisories for critical farm operations like management of sowing, changing crop variety, spraying pesticides for disease control and managing irrigation etc.
- The survey also revealed that every woman from a fishing household included in the survey wanted to know the ocean state forecast provided by the Indian National Centre for Ocean Information Services (INCOIS) through messaging services on an everyday basis.

Infrastructure Development: 13th Urban Mobility India Conference 2020



Relevance IN – Prelims (about UMI conference – objective + about shared mobility) + Mains (GS II government policies and interventions + GS III infrastructure development)

What's the NEWS

- The 13th Urban Mobility India (UMI) Conference is being organized by the Ministry of Housing and Urban Affairs on 9th November 2020.
- The day-long Conference will be held on-line through Video Conference/Webinar.
- The main theme of this year's event is **"Emerging Trends in Urban Mobility"** with focus on innovative measures taken at national and international level to address the challenges posed by Covid-19 pandemic to provide accessible and convenient transport to the people.

12th UMI Conference 2019

- The 12th Urban Mobility India (UMI) Conference was held from 15th to 17th November, 2019 at the Indira Gandhi Pratishthan, Lucknow.
- The theme of the conference was "Accessible and Liveable Cities".
- The Institute of Urban Transport (India) provided the technical and logistics support in organizing the conference.
- More than 1,000 delegates, including foreign delegates from 10 countries and International organizations, students, urban transport experts, practitioners, resource persons, researchers, scholars and senior government officials from 30 States and Union Territories across India attended the Conference.

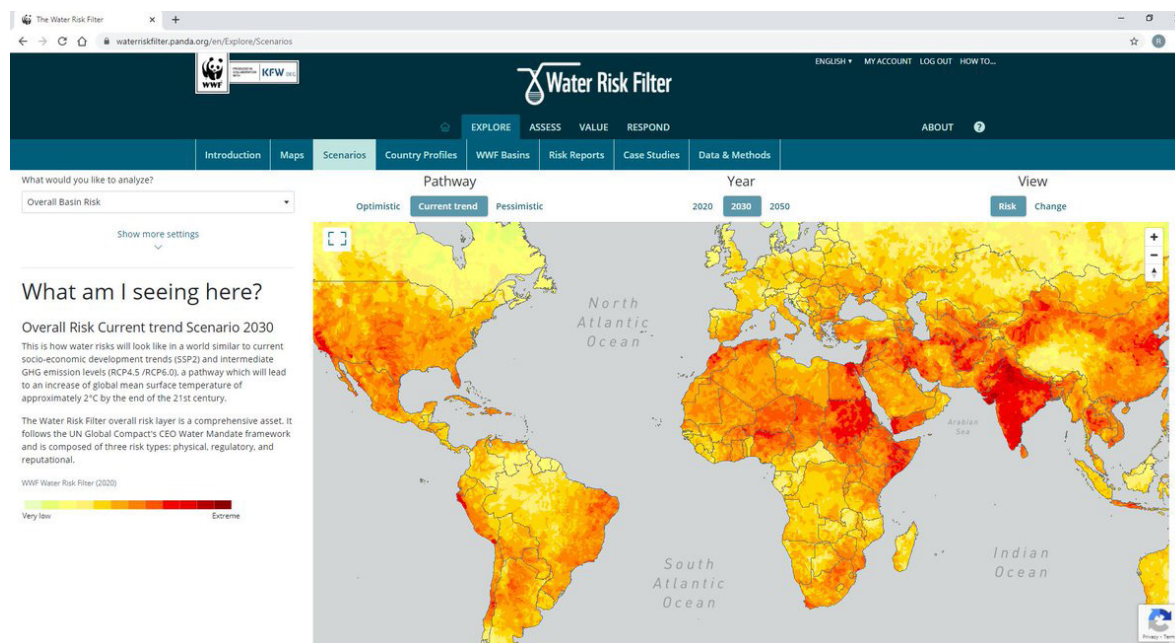
Benefits of Urban Mobility

- With rapidly increasing mobility, needs and availability of technology, there is expected shift from vehicle ownership to vehicle sharing and public transport, with higher emphasis on multimodal seamless connectivity and clean mobility.
- These emerging trends are likely to bring a paradigm shift in the expectations of the commuters and our cities need to adapt to the rapidly changing mobility needs.
- To address these issues, the Ministry of Housing and Urban Affairs, Government of India issued the National Urban Transport Policy, 2006 (NUTP).
- The objective of the policy is to ensure safe, affordable, quick, comfortable, reliable and sustainable access for the growing number of city residents to jobs, education, recreation and such other needs within our cities.

Know! more about Urban Mobility India (UMI) conference

- The primary objective of the conference is to disseminate information to the cities, whose officials attend the conference to help them keep up-to-date with latest and best urban transport practices globally.
- The conference provides an opportunity to interact with other professionals, technology and service providers, both domestic and international, so that the delegates can carry home ideas to develop their urban transport along a sustainable path.
- The event brings together national and international experts, technology and service providers, policy makers, practitioners and officials from the urban transport sector under one roof.

Environment: WWF Water Risk Filter report



Relevance IN – Prelims (about WWF Water Risk Filter report highlights and about WWF) + Mains (GS III environment conservation)

What's the NEWS

- About 30 Indian cities will face increasing “water risks” in the next few decades according to a new report released by World Wide Fund for Nature (WWF).

WWF Water Risk Filter report highlights

- Nearly 30 Indian cities, including Jaipur, Indore, Amritsar, Pune, Srinagar, Kolkata, Bengaluru, Mumbai, Kozhikode and Visakhapatnam will face acute “water risks.”
- Globally, the report estimates that “hundreds of millions of people in cities across the globe could face dramatically increased water risks.
- 100 cities will witness a massive rise in water risks by 2050.

- The list also includes cities such as Beijing, Jakarta, Johannesburg, Istanbul, Hong Kong, Mecca and Rio de Janeiro.
- Almost half of these cities are in China, with other hotspots in South Asia, Middle East, South America and Africa.
- These cities overall, are home to 350 million people. Globally, populations in areas of high-water risk could increase to 51 per cent by 2050.

Navigating risks in India -suggestions

- The report suggests that the Smart Cities initiative in India could aid an integrated urban water management framework.
- A multi-stakeholder engagement and ownership involving local communities will play a key role in creating and conserving a sustainable water infrastructure and rejuvenating urban freshwater systems.
- Cutting water consumption and nature-based solutions to conserve water will help reduce water risks.

The World Wide Fund for Nature (WWF)

- It is an international non-governmental organization founded in 1961 that works in the field of wilderness preservation and the reduction of human impact on the environment.
- It was formerly named the World Wildlife Fund, which remains its official name in Canada and the United States.
- WWF is the world's largest conservation organization, with over five million supporters worldwide, working in more than 100 countries and supporting around 3,000 conservation and environmental projects.
- They have invested over \$1 billion in more than 12,000 conservation initiatives since 1995.
- WWF is a foundation with 55% of funding from individuals and bequests, 19% from government sources (such as the World Bank, DFID, and USAID) and 8% from corporations in 2014.
- WWF aims to "stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.
- The Living Planet Report has been published every two years by WWF since 1998; it is based on a Living Planet Index and ecological footprint calculation.
- In addition, WWF has launched several notable worldwide campaigns, including Earth Hour and Debt-for-Nature Swap, and its current work is organized around these six areas: food, climate, freshwater, wildlife, forests, and oceans.

Science & Technology: Gandhian Young Technological Awards in two categories -SITARE-GYTI and SRISTI-GYTI awards

Relevance IN – Prelims (about Gandhian Young Technological Innovation SITARE-GYTI and SRISTI-GYTI awards

What's the NEWS

- Union Minister of Science & Technology gave away **Students Innovations for Advancement of Research Explorations - Gandhian Young Technological Innovation (SITARE-GYTI)** and **Society for Research and Initiatives for Sustainable Technological Innovations-Gandhian Young Technological Innovation (SRISTI-GYTI)** awards
- The awardees were selected after rigorous review process by eminent professors and scientists in respective fields.

Gandhian Young Technological Innovation awards

- Gandhian Young Technological Innovation awards constitute two categories of awards, SITARE–GYTI under Biotechnology Industry Research Assistance Council (BIRAC), Department of Biotechnology (DBT) and SRISTI-GYTI given by SRISTI.
- The awards and appreciations are given under these two categories to encourage technology students to move towards setting up Biotech and other start-ups.

SITARE-GYTI awards and SRISTI-GYTI awards

- SITARE-GYTI awards are given every year to the most promising technologies developed by the students in life sciences, biotechnology, agriculture, medical devices etc.
- SRISTI-GYTI awards are given to students in other engineering disciplines, he said.
- Under SITARE-GYTI awards, 250 entries from student innovators with potential for Biotech and life science start-ups were received in six categories from 96 universities and institutes across 23 states and Union Territories.
- More than 700 entries were received under SRISTI-GYTI in 42 technology domains from 270 universities and institutes belonging to 27 states and union territories.



Steps taken by the government to encourage a larger number of student entrepreneurs

- Honey Bee Network has been scouting and supporting grassroots innovators also through SHODHYATRAS all over the country and encouraging under-graduate students to work on their innovations as well as on traditional knowledge through BIRAC supported Biotechnological Innovation Ignition Scheme
- S&T labs of DBT, CSIR and DST can now be the Incubators for these young Innovators.
- BIRAC E-YUVA scheme will engage a number of Universities and Technology Institutes to serve as Mentors.
- BIRAC had conceived SITARE to galvanise the power of creativity and innovative thinking among the young minds.
- The Honey Bee Network's made to trigger grassroots innovation movement in India is unparalleled worldwide.
- SRISTI has added GYTI platform to encourage innovations for grassroots and other sectors

Biotechnology Industry Research Assistance Council (BIRAC)

- It is a not-for-profit state owned enterprise under the Department of Biotechnology (DBT), Government of India to strategically empower emerging biotech companies.

India CEO Forum on Climate Change

Relevance IN – Prelims (about the India CEO Forum on Climate Change + Declaration of the Private Sector on Climate Change – highlights) + Mains (GS III Environment conservation)

What's the NEWS

- A 'Declaration of the Private Sector on Climate Change' has been signed and released during the high-level virtual event being organized under the Chairmanship of Union Environment Minister, Shri Prakash Javadekar, on 5th November 2020.

Declaration of the Private Sector on Climate Change

- Key industry leaders from the steel, cement, power, pharmaceuticals etc. sectors will deliver statements to reinforce their commitment to the cause of climate change and share their vision for climate action in the post-2020 period.



- India is a signatory to the Paris Agreement under the United Nations Framework Convention on Climate Change.
- As part of its Nationally Determined Contribution (NDC), India has three quantitative climate change goals viz. reduction in the emissions intensity of Gross Domestic Product (GDP) by 33 to 35 percent by 2030 from 2005 level, achieving about 40 percent cumulative electric power installed capacity from non-fossil fuel based energy resources by 2030 and creating an additional carbon sink of 2.5 to 3 billion tonnes of carbon dioxide equivalent through additional forest and tree cover by 2030.
- The private sector plays pivotal role in creating low-carbon sustainable economies and has embarked on a number of voluntary actions on climate change that can contribute towards achieving India's NDC goals.
- The private sector also benefitted from India's participation in Clean Development Mechanism of the Kyoto Protocol and going forward Article 6 of the Paris Agreement offers further opportunities for meeting the climate change and sustainable development objectives.
- The India CEO Forum on Climate Change is all set to forge long standing and sustainable partnership between the Government and private sector in the field of climate change.



The India CEO Forum on Climate Change

- The forum invites industry representatives and exchanged views on climate change issues.
- The forum also discussed the opportunities to collaborate in regard to fulfilling India's national as well as international climate change commitments.
- The forum is organised by Ministry of Environment, Forest and Climate Change (MoEFCC).
- Forum was being conducted to create a mechanism for the government and businesses to formally talk about climate change issues and develop a common voice at global forums so that there is no disconnect between the stand of the government and that of the industries.

Space Awareness: PSLV-C49/EOS-01

Relevance IN – Prelims (about EOS-01) + Mains (GS III awareness in the field of space)

What's the NEWS

- India's Polar Satellite Launch Vehicle, in its fifty first flight (PSLV-C49), successfully launched EOS-01 along with nine international customer satellites from Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota on November 07, 2020.

Know! more about the launch

- PSLV-C49 is the 2nd flight of PSLV in 'DL' configuration (with 2 solid strap-on motors).
- PSLV-C49 lifted-off from the First Launch Pad of SDSC SHAR, Sriharikota .
- After 15 minutes and 20 seconds, EOS-01 was successfully injected into its orbit.



- Subsequently, nine commercial satellites were injected into their intended orbits.
- After separation, the two solar arrays of EOS-01 were deployed automatically and the ISRO Telemetry Tracking and Command Network at Bengaluru assumed control of the satellite.

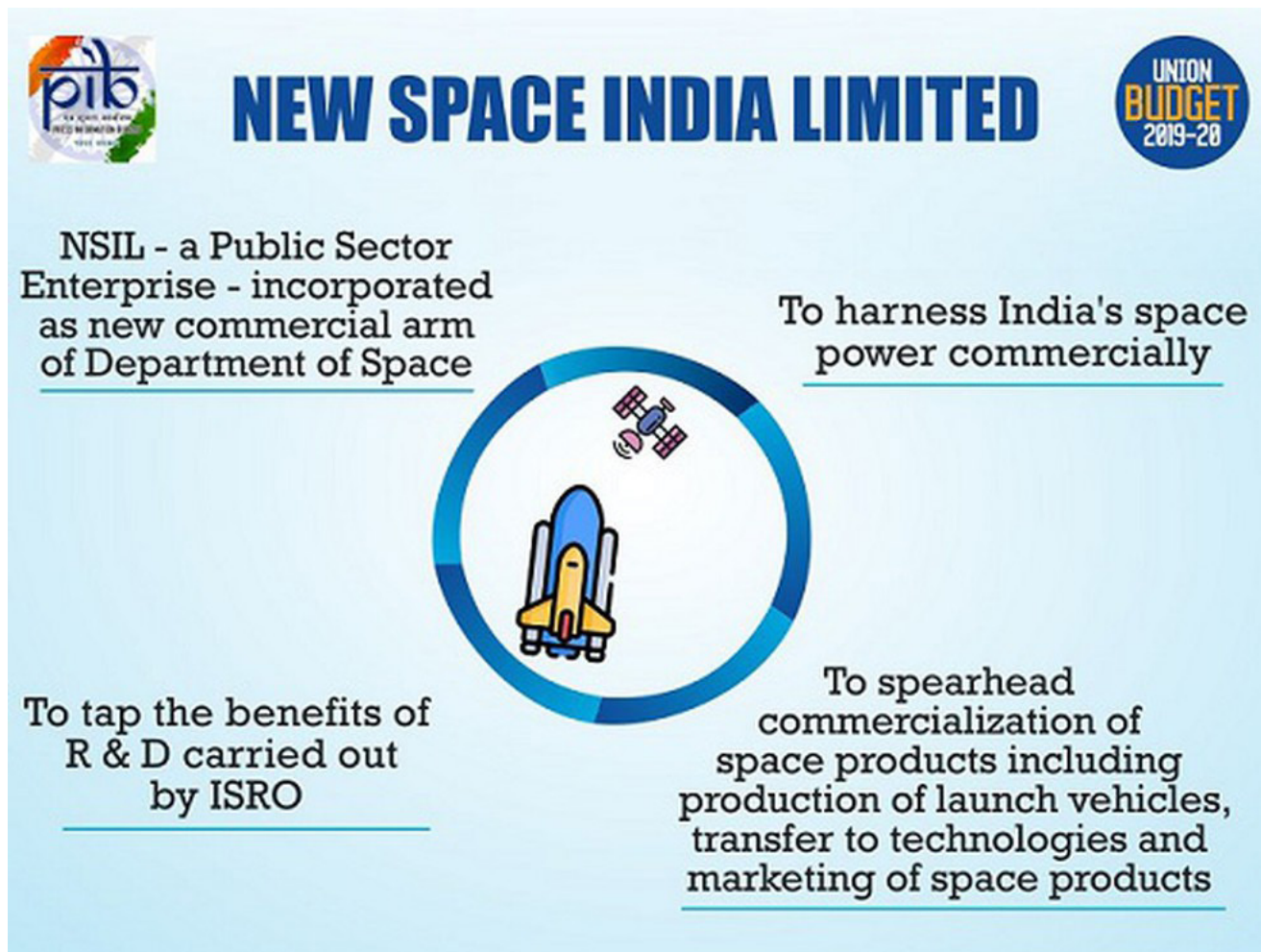
Know! about EOS-01

- It is an earth observation satellite, intended for applications in agriculture, forestry and disaster management support.
- The nine customer satellites from Lithuania (1), Luxembourg (4) and USA (4) were launched under a commercial arrangement with NewSpace India Limited (NSIL).

Know! more about the launch

- This is the space agency's first launch since a nationwide lockdown
- An earlier launch - of the GSAT-30 telecommunication satellite - was completed in January, but that was from a base in French Guinea.
- The PSLV is often referred to as the workhorse of India's space programme and has now completed its 51st launch.
- This launch was also the 77th launch mission from the Sriharikota spaceport.
- The recent launch also means the agency has sent 328 foreign satellites (from 33 nations) into space.
- ISRO, EOS-01 is a highly advanced earth observation satellite intended for use in supporting agriculture, forestry and disaster management planning.
- The customer satellites, launched under a commercial agreement with New India Space Limited (NSIL), include four from the United States that are meant for "multi-mission remote sensing".

Know! about NSIL



Science & Technology: STIP-2020

विज्ञान प्रौद्योगिकी और नवाचार नीति 2020 - भारतीय प्रवासी वैज्ञानिकों के साथ परामर्श बैठक

STIP 2020
CONSULTATION with
INDIAN DIASPORA

📅 November 7, 2020 ⌚ 20:00 Hrs IST

Share your thoughts and ideas using
#ChatWithDrHarshVardhan

Dr Harsh Vardhan
Union Minister for Science & Technology, Earth Sciences, and Health & Family Welfare

WATCH LIVE on **SCIENCE POLICY FORUM** **#STIP2020**

<https://tinyurl.com/y6e6ucpb>

Relevance IN – Prelims (Science Technology and Innovation Policy (STIP) 2020 + steps taken by the government -schemes) + Mains (GS III awareness in the field of S&T)

What's the NEWS

- Union Minister for Science Technology, chaired the first of its kind policy consultation with the highly-skilled Indian diaspora to facilitate channels for them **to contribute to India's Science Technology and Innovation Policy (STIP) 2020**
- The consultation meeting was attended by **Principal Scientific Adviser to the Government of India**
- The consultation aims at generating and streamlining key ideas in the making of STIP 2020 and involving the Indian diaspora as one of major stakeholders in the policy formulation process

Steps taken by the government to engage with the Indian diaspora communities

- The **VAIBHAV Summit** and the recently launched dedicated, one-stop platform for S&T diaspora engagement, **"PRABHASS"** are some proactive steps of the Government towards this engagement.
- The scientific diaspora contributes a lot in both internationalization of science and technology development and boosting the country's technology intensity.
- India aims to connect the diaspora back to Indian scientific and economic ecosystem to accelerate the growth in STI.

Know! about STIP 2020

- The core vision of STIP 2020 is the decentralization of policy designing by making it a bottom-up and inclusive process.
- It aims to realign priorities, sectoral focus and methods of research and technology development with the goals of larger socio-economic progress.
- The proposed STI policy is expected to leverage the astounding progress that the STI system has witnessed in recent years
- The formulation of STIP 2020 is driven by 4 interrelated tracks, 21 expert-driven thematic groups, and focused public discussions/consultations.

Top leaders of industries participated in industry consultation roundtable for the formulation of the new STIP 2020

The consultation was focused on inviting suggestions from Industry leaders for the upcoming STIP 2020 that will pave the way towards a knowledge-based economy

- Ways to make the policy a strong one that would encourage more industry participation in R&D activities were discussed
- Industry stalwarts focused on the need for more collaboration between industry & academia
- Captains of the industry stressed on the need for more incentives and recognition to encourage industry to fund R&D and ways to leverage the use of CSR funds for the purpose
- They highlighted on the necessity of a culture for indigenous technology development & move towards Atmanirbhar Bharat

www.dst.gov.in @IndiaDST

- The process aims to define priority issues for the national STI ecosystem, recommendations with aligned implementation strategies, expected deliverables, and a rigorous monitoring mechanism.

Additional info

Principal Scientific Adviser

- In November 1999, Cabinet Secretariat established the Office of the Principal Scientific Adviser to the Government of India.
- The PSA's office aims to provide pragmatic and objective advice to the Prime Minister and cabinet on matters related to science, technology and innovation with a focus on application of science and technology in critical infrastructure, economic and social sectors in partnership with Government departments, institutions and industry

More about STIP 2020

- The Government of India will launch STIP 2020, a holistic and pragmatic policy dedicated to Science, technology and most importantly innovation.
- The policy aims to reorient Science Technology & Innovation (STI) in terms of priorities, sectoral focus and strategies.
- The STIP 2020 policy is initiated jointly by the Office of the Principal Scientific Advisor (Office of PSA) and the Department of Science and Technology (DST).
- A Secretariat with in-house policy knowledge and data support unit, has been set up at Department of science and Technology to coordinate the entire process.

PM-STIAC initiative

- An overarching council that facilitates the PSA's Office to assess the status in specific science and technology domains, comprehend challenges, formulate interventions, develop a futuristic roadmap and advise the Prime Minister accordingly.
- The project management team at invest India, together with the office of the PSA, will facilitate the delivery and progress of all 9 national missions under PM-STIAC.

The 9 missions under the PM-STIAC initiative

Natural Language Translation

- The mission will facilitate access to teaching and research material across all regional languages.

Quantum Frontier

- This mission will initiate work in the understanding and control of quantum mechanical system with many degrees of freedom

Artificial Intelligence

- This mission will facilitate the advancement in the field of Artificial Intelligence by engaging closely with academia and industry to develop core research capability.

National Biodiversity Mission

- The mission aims to build exhaustive documentation of countries biodiversity with cataloguing and mapping all lifeforms.

Electric Vehicles

- This mission is critical for India to reduce fossil fuel consumption and mitigate emissions by facilitating the production of Electric Vehicles (EVs) economically.

Bio Science for human health

- This mission will utilise healthy and disease samples to understand the impact of nature and nurture on human health.

Waste to wealth mission

- This mission will identify, develop and deploy technologies to treat waste to generate energy, recycle materials and extract worth.

Deep ocean exploration

- This mission will explore the deep oceans to improve our understanding of the blue frontier.

AGNi

- This mission will boost the innovation ecosystem in the country and help commercialise innovative solutions.

Food Processing: MOFPI Provides 50% Subsidy on air Transportation from North-Eastern and Himalayan States

Relevance IN – Prelims (about Operation Greens Scheme TOP to TOTAL) + Mains (GS III food processing)

What's the NEWS

- Under Aatma Nirbhar Bharat Abhiyan, Operation Greens Scheme TOP to TOTAL, 50% transportation subsidy is now made available for air transportation **for 41 notified fruits and vegetables** from North-Eastern and Himalayan States to any place in India.

Know! more about the transportation subsidy

- Airlines will provide the transport subsidy directly to the supplier/consignor/consignee/ agent by way of charging only 50% of the actual contracted freight charges and will claim the balance 50% from MoFPI as subsidy.
- In relaxation of other conditions for Operation Greens – TOP to TOTAL Scheme for transportation through Airlines from eligible airports, all consignment of notified fruits and vegetables irrespective of quantity and price would be eligible for 50% freight subsidy.
- The transportation subsidy **was earlier extended under Operation Greens Scheme for Kisan Rail Scheme** with effect from 12.10.2020.
- Railways charge only 50% of freight charges on the notified fruits and vegetables.

Operation Greens Scheme TOP to TOTAL

- Ministry of Food Processing Industries (MoFPI) has extended the Operation Greens Scheme from Tomato, Onion and Potato (TOP) to all fruits & vegetables (TOTAL) for a period of six months on pilot basis as part of Aatmanirbhar Bharat Abhiyan.
- The objective of intervention is to protect the growers of fruits and vegetables from making distress sale due to lockdown and reduce the post - harvest losses.
- Any other fruit/vegetable can be added in future on the basis of recommendation by Ministry of Agriculture or State Government

Eligible Entities

- Food Processors, FPO/FPC, Co-operative Societies, Individual farmers, Licensed Commission Agent, Exporters, State Marketing/Co- operative Federation, Retailers etc. engaged in processing/ marketing of fruits and vegetables.

Economy: AatmaNirbhar Bharat 3.0

Relevance IN – Prelims (AatmaNirbhar Bharat 3.0. – highlights) + Mains (GS III financial inclusion + economic developments + GS II government policies and interventions)

What's the NEWS

- Union Minister for Finance & Corporate Affairs has announced 12 key measures, as part of Government of India's stimulus to the economy, under AatmaNirbhar Bharat 3.0.



Ensuring the welfare of our farmers!

50% transportation subsidy on
Air Transportation from North-Eastern and the Himalayan States
under
**Operation Greens Scheme
TOP to TOTAL**

Farmers can transport notified fruits & vegetables from North Eastern and the Himalayan States through Airline only at **50%** of the freight amount.

Summary of Stimulus Measures Announced till date

Sl.	Item	Rs. Crore
1.	Pradhan Mantri Garib Kalyan Package (PMGKP) +	1,92,800
2.	Atmanirbhar Bharat Abhiyaan 1.0	11,02,650
3.	PMGKP Anna Yojana – extension of 5 months from Jul - Nov	82,911
4.	Atmanirbhar Bharat Abhiyaan 2.0 (12 th October)	73,000
5.	Atmanirbhar Bharat Abhiyaan 3.0	2,65,080
6.	RBI measures announced till 31 st Oct 2020	12,71,200
Total		29,87,641

- The net stimulus announced today amounts to Rs. 2.65 Lakh crore.
- The total stimulus announced by the Government and Reserve Bank of India till date, to help the nation tide over the COVID-19 pandemic, works out to Rs. 29.87 lakh crore, which is 15% of national GDP.
- Out of this, stimulus worth 9% of GDP has been provided by the government.

The following are the 12 key announcements under AatmaNirbhar Bharat 3.0-

1. AatmaNirbhar Bharat Rozgar Yojana

- A new scheme to incentivize job creation during COVID-19 recovery has been launched.
- If EPFO-registered establishments take in new employees without EPFO registration or those who lost jobs earlier, the Yojana will benefit these employees.

Beneficiaries / New Employees under the scheme would be:

- any new employee joining employment in EPFO registered establishments on monthly wages less than Rs.15,000
- EPF members drawing monthly wage of less than Rs.15,000 who made exit from employment during COVID Pandemic from 01.03.2020 to 30.09.2020 and is employed on or after 01.10.2020.

Central Govt. will provide subsidy for two years in respect of new eligible employees engaged on or after 01.10.2020 at following scale:

- **Establishments employing up to 1000 employees:** Employee's contributions (12% of Wages) & Employer's contributions (12% of wages) totalling 24% of wages
- **Establishments employing more than 1000 employees:** Only Employee's EPF contributions (12% of EPF wages)

2. Emergency Credit Line Guarantee Scheme for MSMEs, businesses, MUDRA borrowers and individuals (loans for business purposes), has been extended till March 31, 2021.

- A Credit guarantee support scheme ECLGS 2.0 is being launched for Healthcare sector and 26 stressed sectors with credit outstanding of above Rs. 50 crore and up to Rs. 500 Crore as on 29.2.2020 stressed due to COVID-19, among other criteria.
- Entities will get **additional credit up to 20% of outstanding credit** with a tenor of five years, including 1 year moratorium on principal repayment. This scheme will be available till 31.3.2021.

3. Production Linked Incentive worth Rs. 1.46 Lakh Crore to 10 champion sectors.

- 10 more Champion Sectors will be covered under the Production Linked Incentives Scheme to help boost competitiveness of domestic manufacturing.

ATMANIRBHAR BHARAT ROZGAR YOJANA (1/3)

New Scheme to incentivise creation of new employment opportunities during the COVID recovery phase.

Central Govt. to provide subsidy for two years in respect of new eligible employees engaged on or after 01.10.2020 at following scale:

Establishments employing up to 1000 employees	Establishments employing more than 1000 employees
Employee's contributions (12% of Wages)	Only Employee's EPF contributions (12% of EPF wages)
Employer's contributions (12% of wages)	
Total- 24% of wages	

Scheme to be operational till 30th June 2021

- This will give a big boost to economy, investment, exports and job creation. A total amount of nearly 1.5 Lakh Crore has been earmarked across sectors, for next five years.
- The ten sectors are - Advance Cell Chemistry Battery, Electronic/Technology Products, Automobiles & Auto Components, Pharmaceuticals Drugs, Telecom & Networking Products, Textile Products, Food Products, High Efficiency Solar PV Modules, White Goods (ACs & LED), and Specialty Steel.

4. Rs. 18,000 Crore Additional outlay of for PM Awaas Yojana - Urban

- A sum of Rs 18000 cr is being provided for PMAY- Urban over and above Rs. 8000 Crore already allocated this year.
- This will help ground 12 Lakh houses and complete 18 Lakh houses, create additional 78 Lakh jobs and improve production and sale of steel and cement, resulting in multiplier effect on economy.

5. Support for Construction & Infrastructure – Relaxation of Earnest Deposit Money & Performance Security on Government Tenders

- To provide ease of doing business and relief to contractors whose money otherwise remains locked up, performance security on contracts has been **reduced from 5-10% to 3%**.
- It will also extend to ongoing contracts and Public Sector Enterprises. EMD for tenders will be replaced by Bid Security Declaration. The relaxations in the General Financial Rules will be in force till December 31, 2021.

6. Income Tax relief for Developers & Home Buyers

- Differential between circle rate and agreement value in real estate income tax under Section 43 CA of IT Act has been increased from 10% to 20%.
- This is for primary sale of residential units up to Rs. 2 Crore (from date of announcement of this scheme, till June 30 2021).
- Consequential Relief up to 20% shall also be allowed to buyers of these units under section 56(2)(x) of IT Act for the said period. The Income Tax relief provides incentive to middle class to buy homes.

7. Platform for Infra Debt Financing

- Government will make Rs. 6,000 Crore equity investment in debt platform of National Investment and Infrastructure Fund (NIIF), which will help NIIF provide a debt of Rs. 1.1 Lakh Crore for infrastructure projects by 2025.

8. Support for Agriculture: Rs. 65,000 Crore for subsidized fertilizers

- As fertilizer consumption is going up significantly, Rs. 65,000 Crore is being provided to ensure increased supply of fertilizers to farmers to enable timely availability of fertilisers in the upcoming crop season.

9. Boost for Rural Employment:

- Additional outlay of Rs. 10,000 Crore is being provided for PM Garib Kalyan Rozgar Yojana to provide rural employment. This will help accelerate rural economy.

10. Boost for Project Exports

- Rs. 3,000 Crore boost is being provided to EXIM Bank for promoting project exports under Indian Development and Economic Assistance Scheme (IDEAS Scheme). This will help EXIM Bank facilitate Lines of Credit development assistance activities and promote exports from India.

BOOST FOR ATMANIRBHAR MANUFACTURING

Production-linked Incentives for 10 Champion Sectors

10 more Champion Sectors will now be covered under the PLI Scheme to boost the competitiveness of domestic manufacturing

Sector	Estimated Expenditure on new PLIs (Rs. Crore)
Advance Cell Chemistry Battery	18,100
Electronic/Technology Products	5,000
Automobiles & Auto Components	57,042
Pharmaceuticals Drugs	15,000
Telecom & Networking Products	12,195
Textile Products	10,683
Food Products	10,900
High Efficiency Solar PV Modules	4,500
White Goods (ACs & LED)	6,238
Specialty Steel	6,322
Total	1,45,980

11. Capital and Industrial Stimulus

- Rs. 10,200 Crore additional budget stimulus is being provided for capital and industrial expenditure on domestic defence equipment, industrial infrastructure and green energy.

12. R&D grant for COVID Vaccine

- Rs. 900 Crore is being provided to Department of Biotechnology for Research and Development of Indian COVID Vaccine.

Economy: DIPAM signs an agreement with World Bank for advisory services on Asset Monetization

Relevance IN – Prelims (about the agreement on asset monetisation + about DIPAM) + Mains (GS III Economic developments)

What's the NEWS

- Department of Investment and Public Asset Management (DIPAM) which mainly handles government's disinvestment programme has signed an agreement with World Bank
- Under the agreement, World Bank is to provide advisory services to DIPAM for asset monetization.

Know! about DIPAM

- DIPAM is mandated with facilitating monetization of non-core assets of government CPSEs under strategic disinvestment or closure and enemy property of value of INR 100 crores and above.
- DIPAM has a framework for monetizing non-core assets.

Know! about the agreement

- The World Bank advisory project, approved by the Finance Minister, is aimed at analyzing public asset monetization in India and benchmarking its institutional and business models against international best practices as well as supporting development of operational guidelines and capacity building for their implementation.
- It is expected that this project would facilitate and accelerate the non-core asset monetization process and help unlock the value of these un-used/ marginally used assets which has the potential to substantially augment financial resources for further investments and growth.
- The amount raised through the sale of non-core assets would form part of the disinvestment proceeds.
- The government has set a target of raising Rs 2.10 lakh crore from disinvestment in the current financial year. Of this, Rs 1.20 lakh crore is to be raised through CPSE disinvestment.

Know! all about Disinvestment and DIPAM

- The Department of Disinvestment was set up as a separate Department on 10th December, 1999 and was later renamed as Ministry of Disinvestment from 6th September, 2001.
- From 27th May, 2004, the Department of Disinvestment is one of the Departments under the Ministry of Finance.
- The Department of Disinvestment has been renamed as Department of Investment and Public Asset Management (DIPAM) from 14th April, 2016.

Objective of DIPAM

- Promote people's ownership of Central Public Sector Enterprises to share in their prosperity through disinvestment.
- Efficient management of public investment in CPSEs for accelerating economic development and augmenting Government's resources for higher expenditure
- List CPSEs on stock exchanges to promote people's ownership through public participation and improving efficiencies of CPSEs through accountability to its shareholders.
- To bring in operational efficiencies in CPSEs through strategic investment, ensuring their greater contribution to economy.
- Adopt a professional approach for financial management of CPSEs in the national interest and investment aimed at expanding public participation in ownership of CPSEs.
- Decisions on the recommendations of Administrative Ministries, NITI Aayog, etc. for disinvestment including strategic disinvestment.

Infrastructure Development: Gujarat Maritime cluster ports

Relevance IN – Prelims (about Gujarat Maritime cluster ports) + Mains (GS III infrastructure development)

What's the NEWS

- Many facilities are getting ready in Gujarat like Gujarat Maritime Cluster, Gujarat Maritime University and country's first CNG Terminal at Bhavnagar.
- Gujarat Maritime cluster ports to be built in GIFT city would be a dedicated system to address Ports to sea based Logistics.
- These clusters would help in strengthening the cooperation between the government, industry and educational institutions and will also help in value addition in this sector.
- India's first Chemical Terminal was established in Dahej, India's first LNG terminal was established, now India's first CNG terminal is going to be installed at Bhavnagar Port.

Maritime Clusters

- Gujarat plans to establish maritime clusters in Gujarat to **promote maritime industry development in a structured manner.**
- Maritime Clusters to especially provide supportive ecosystem for developing commercial 'soft services' vis-à-vis maritime industry.
- GPIDCL has initiated a study to deduce the feasibility of establishing maritime clusters in Gujarat.



A cluster for maritime commercial services is proposed to be set up in GIFT City, Gandhinagar.

Know! all about Gujarat Maritime cluster ports

- A maritime cluster is an agglomeration of firms, institutions, and businesses in the maritime sector that are geographically located close to each other.
- The Gujarat Maritime Board (GMB), a nodal agency of the Gujarat government, has been trying to develop such a cluster at GIFT City in the state capital Gandhinagar through its subsidiary Gujarat Ports Infrastructure and Development Company Ltd (GPIDCL).
- This cluster will initially consist of Gujarat-based shipping lines, freight forwarders, shipping agents, bunker suppliers, stevedores, and ship brokers with chartering requirements.
- In the second stage, the cluster would attempt to bring Indian ship owners, ship operators, Indian charterers and technical consultants scattered in cities like Mumbai, Chennai, and Delhi to Gujarat. Thereafter it would target to attract global players in the maritime sphere.
- This project will try to bring back businesses that have migrated over the years to foreign locations due to the absence of the right ecosystem in the country.

Government Schemes: MNRE expands scope of PM-KUSUM Scheme

Relevance IN – Prelims (about PM-KUSUM Scheme and its further expansions) + Mains (GS II government policies and intervention for the development of various sectors + GS III farmers welfare)

What's the NEWS

- MNRE has amended/clarified implementation Guidelines of Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyaan (PM-KUSUM) Scheme based on the learnings from the implementation of the Scheme during the first year.
- The Cabinet Committee on Economic Affairs had approved PM-KUSUM scheme in its meeting held on 19.2.2019.



The Scheme consists of three components.

- The Component-A includes installation of Decentralized Ground Mounted Grid Connected Renewable Power Plants.
- Component-B includes installation of standalone Solar Powered Agriculture Pumps
- Component-C includes Solarisation of Grid-connected Agriculture Pumps.

The ministry has issued following amendments/clarifications in the Scheme Implementation Guidelines:

Amendments/clarifications for Component-A

- Besides barren, fallow and agricultural land, solar power plants can also be installed on pastureland and marshy land of farmers.
- To support small farmers, the solar power projects smaller than 500 kW may be allowed by States based on techno-commercial feasibility.
- The selected Renewable Power Generator (RPG) shall commission the solar power plant within twelve months from date of issuance of Letter of Award (LoA).
- There shall be no penalty to RPG for shortfall in solar power generation from minimum prescribed Capacity Utilization Factor (CUF).

Amendments/clarifications for Component-B

- MNRE will retain 33% of eligible service charges for nation-wide Information, Education and Communication (IEC) activities.
- It is now decided to allow joint venture of manufacturer of solar pump/solar panel/solar pump controller with integrators. The order allows either one or both of the following two categories to participate in the centralised tendering:
 - a. Manufacturer of solar PV modules or manufacturer of solar pumps or manufacturer of solar pump controllers using indigenous technology.
 - b. Joint venture of any of manufacturers mentioned at (a) above with system integrators.

Universal Solar Pump Controller (USPC)

- As part of amended guidelines separate bid price for solar water pumping system with Universal Solar Pump Controller (USPC) will be invited and subsidy will be made available for these pumps according to benchmark price of solar pumps without USPC, even if the price discovered for solar pumps without USPC are less than benchmark price.
- Standalone solar pumps are used only for 100-150 days in a year and solar energy generated during balance period is not utilised.
- In order to make effective use of solar energy it was proposed to introduce USPC, which will not only run the water pump but can also run other electric equipment cold storage, battery charging, flour mill, etc. Installation of USPC will increase the income of farmer, which is the aim of the PM-KUSUM Scheme.

Amendments/clarifications for Component-C

- Under Component-C, individual farmers having grid connected agriculture pumps are being supported to solarise their pumps.
- Farmers will be provided solar panels and they will be able to use the generated solar power to meet the irrigation needs and sell the surplus solar power.
- DISCOMs will buy surplus power from them at the per-determined rate to be decided by the respective State/ SERC.
- Solar PV capacity up to two times of pump capacity in kW is allowed under the scheme.
- The Scheme Guidelines were silent on CFA applicable for solarisation of large capacity pumps used by Water User Associations and community/cluster based irrigation system.
- Now it has been clarified by the Ministry that for grid connected pumps used by Water User Associations (WUA)/Farmer Producer Organisations (FPO)/Primary Agriculture Credit Societies (PACS) or for cluster based irrigation system, the CFA will be allowed for solarisation of pump capacity higher than 7.5 HP considering upto 5 HP capacity for each individual in the group.

Science and Technology: mRNA technology

Relevance IN – Prelims (about the use of mRNA technology)

What's the NEWS

- Moderna, a US Biotech firm announced that its COVID-19 vaccines are 94.5% effective.
- Earlier Pfizer also released results showing 90% effectiveness in its own vaccine.
- Moderna and Pfizer are using mRNA technology in their vaccines. This is the first time the mRNA technology is being used to create vaccines.

Know! about mRNA technology

- This is a vaccine that was developed using mRNA technology — it makes use of the messenger RNA molecules that tell cells what proteins to build.
- The mRNA, in this case, is coded to tell the cells to recreate the spike protein of the novel coronavirus.
- Once the mRNA is injected into the body, the cells will use its instructions, creating copies of the spike protein, which is in return expected to prompt the immune cells to create antibodies to fight it.
- Unlike several other vaccine candidates, mRNA vaccines are synthetically developed — they don't need the virus to be cultivated and replicated, just the code for the most crucial part that the body's immune system is to target.
- Another advantage is that they can be manufactured at a large scale in large vats called bioreactors.
- These are platforms that can work "on demand. After getting the code for the virus, it is possible to develop the vaccine within weeks for pre-clinical testing, compared with months taken for more traditional platforms.

Economy: Reserve Bank Innovation Hub

Relevance IN – Prelims (about RBIH and its role) + Mains (GS III financial inclusion)

What's the NEWS

- Senapathy (Kris) Gopalakrishnan, co-founder and former co-Chairman, Infosys, has been appointed as the first Chairperson of the Reserve Bank Innovation Hub.
- Gopalakrishnan is currently the Chief Mentor of Start-up Village, an incubation hub for start-ups.

Know! about Reserve Bank Innovation Hub (RBIH)

- In August, the central bank had announced that it will set up the Reserve Bank Innovation Hub (RBIH) to promote innovation across the financial sector by leveraging on technology and creating an environment that would facilitate and foster innovation.
- RBIH would be guided and managed by a governing council led by a Chairperson, the central bank said.
- The RBIH shall create an eco-system that would focus on promoting access to financial services and products, this will also promote financial inclusion.
- The Hub will collaborate with financial sector institutions, technology industry and academic institutions and coordinate efforts for exchange of ideas and development of prototypes related to financial innovations.
- It would develop internal infrastructure to promote fintech research and facilitate engagement with innovators and start-ups.

Science & Technology: India International Science Festival (IISF)-2020

Relevance IN – Prelims (about IISF) + Mains (GS III awareness in the field of S&T)

What's the NEWS

- Union Minister of Science & Technology, inaugurated the curtain raiser of IISF-2020 for kick-starting different events of the 6th edition of IISF

Know! about IISF

- IISF is an annual event organized jointly among others by DST, DBT, MoEF, MoHFW and CSIR from the Government of India and VijnanaBharati (VIBHA) as well as with support of a large number of other organisations.

- The website of IISF-2020 was also launched during the event. All the activities and registration of the participants will be done through this website.
- The theme for this year's festival is 'Science for Aatmanirbhar Bharat and Global Welfare'.
- This year, IISF begins on 22 December 2020, the birthday of Srinivas Ramanujan, the world-renowned Indian mathematician and culminates on 25 December 2020, the birthday of former PM AtalBihari Vajpayee
- Council of Scientific and Industrial Research (CSIR) is coordinating the Mega Science Festival, and the Nodal Organization is CSIR-National Institute of Science, Technology and Development Studies (NISTADS), New Delhi
- It is being organized on virtual platform that will help in connecting to the science loving people from the remotest corner of the country in a single click, thereby increasing the digital footprint
- It brings scientists, inventors and researchers, students and citizens from all walks of life on a common platform
- The number of events to be held at this year's festival has increased from 28 to 41, covering many more important facets

Know! more about IISF

- Launched in 2015, the event has become a much-awaited annual event that celebrates the achievements of Science, Technology and Innovation(STI) and demonstrates how science can be the fulcrum of the country's progress.
- IISF 2020 expects to cater to a gathering of approximately one-lakh participants from India and abroad.
- Some new themes have been added this year viz., History of Indian Science, Philosophy and Science, Agritech, Clean Air, Energy, Waste & Sanitation, Biodiversity, Science Diplomacy among others.

Environment Conservation: 23 medicinal plants of Karnataka on endangered list Withering species

Relevance IN – Prelims (about rare medicinal plants + about NMPB + about IUCN) + Mains (GS III Environment conservation)

What's the NEWS

- An exhaustive study commissioned by the Karnataka Biodiversity Board and National Medicinal Plants Board (NMPB) has revealed that 23 rare medicinal plants in various forests of the state are on the verge of extinction and listed as 'endangered' on the International Union for Conservation of Nature (IUCN) list.

Red-listed rare medicinal plants

- The red-listed rare medicinal plants include sandalwood, wild clove, red sanders, wild jamun, wild cinnamon and other species endemic to the Western Ghats.
- The study spanning five years by forest officials, botanists and field experts helped document more than 4,800 flowering plant species in various circles of the forests.
- Out of these, 60 rare species are medically prominent, including the 23 endangered species.
- Of the 13 forest circles, Canara (Uttara Kannada) and Mangaluru have the highest density of medicinally important plants.
- They also have several endangered plant species. Similarly, Kalaburagi and Mysuru circles, with dry deciduous forest cover, have revealed a considerable presence of medicinally important plants.
- The species are facing various levels of threats. "Destruction of forests for projects, damage caused while extracting forest produce, increasing demand for herbal products, smuggling of these plants and wildfire in the summer season have put these species in peril

Know! about National Medicinal Plants Board

- In order to promote medicinal plants sector, Government of India set up National Medicinal Plants Board (NMPB) on 24th November 2000.
- Currently the board is working under the Ministry of AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha & Homoeopathy), Government of India.

- The primary mandate of NMPB is to develop an appropriate mechanism for coordination between various ministries/ departments/ organization and implementation of support policies/programs for overall (conservation, cultivation, trade and export) growth of medicinal plants sector both at the Central /State and International level.
- To meet increasing demand for medicinal plants NMBP focusses on in-situ & ex-situ conservation and augmenting local medicinal plants and aromatic species of medical significance.
- The NMPB also promote research & development, capacity building through trainings, raising awareness through promotional activities like creation of Home/School herbal gardens.
- NMPB's main objective is the development of medicinal plants sector through developing a strong coordination between various ministries/ departments/ organization for implementation of policies / programs on medicinal plants.

Medicinal plant in India

- India is one of the richest countries in the world in terms of biodiversity, has 15 agro-climatic zones.
- Out of the 17000-18000 species of flowering plants, more than 7000 are estimated to have medicinal usage in folk and documented systems of medicine like Ayurveda, Unani, Siddha & Homoeopathy (AYUSH System of Medicine).

Know! about IUCN

- IUCN was established in 1948. It was previously called the International Union for the Protection of Nature (1948–1956) and the World Conservation Union (1990–2008).
- IUCN has observer and consultative status at the United Nations and plays a role in the implementation of several international conventions on nature conservation and biodiversity.
- It was involved in establishing the World Wide Fund for Nature and the World Conservation Monitoring Centre.
- IUCN is a membership Union composed of both government and civil society organisations. It harnesses the experience, resources and reach of its more than 1,400 Member organisations and the input of more than 17,000 experts.
- This diversity and vast expertise makes IUCN the global authority on the status of the natural world and the measures needed to safeguard it.
- The organization is best known to the wider public for compiling and publishing the IUCN Red List of Threatened Species, which assesses the conservation status of species worldwide.

Economy: Paytm, PhonePe, Amazon Pay, others now NPCI shareholders

Relevance IN – Prelims (about NPCI and UPI and other NPCI platforms) + Mains (GS III economic development + financial inclusion)

What's the NEWS

- National Payments Corporation of India (NPCI) has completed private placement of 4.63 per cent of its equity shares worth Rs 81.64 crore.
- At the end of its latest broad-basing exercise, the organisation has on-boarded Amazon Pay, PhonePe and Paytm Payments Bank and PhonePe as the new shareholders.

Know! more about the expansion of NPCI

- With this, the umbrella organisation for retail payments has now expanded its total shareholder base to 67.
- This broad basing exercise was done to further diversify and distribute the NPCI shareholding to a larger set of the RBI regulated entities and categories of payment industry participants.
- NPCI made an offer for the private placement to 131 RBI regulated entities, out of which 19 evinced interest and were allotted shares in NPCI, the not-for-profit initiative, which runs and manages the Unified Payments Interface (UPI)
- With this shareholding expansion, NPCI gets on-board some of the leading banks, new categories of banks and the RBI authorised non-bank entities.

- Though traditional banks such as the State Bank of India, Union Bank of India, Punjab National Bank, Canara Bank, HDFC Bank and ICICI Bank remain the bigger players for now, other older players such as Standard Chartered Bank, Dhanlaxmi Bank, and IDFC First Bank have found seats at the expanded table.
- New entrants to the banking system such as Suryoday Small Finance Bank and Capital Small Finance Bank are also in the expanded list of NPCI, which now has 67 shareholders.
- The entry of non-banking and parent companies of digital payment companies such as Paytm Payments Bank, One Mobikwik Systems Private, Amazon Pay Indian Private, PhonePe Private and Pine Labs may give these players a shot at deciding the future shape of UPI and digital payments in India.
- Earlier this month, Facebook-owned WhatsApp got the nod to roll out its UPI payments service to its 400-million strong user base, the NPCI issued a directive asking third party UPI providers to cap the total number of transactions on their platform to 30 per cent of the total volume of transactions.

Know! about National Payments Corporation of India (NPCI)

- It is an umbrella organisation for operating retail payments and settlement systems in India, is an initiative of Reserve Bank of India (RBI) and Indian Banks' Association (IBA) under the provisions of the Payment and Settlement Systems Act, 2007, for creating a robust Payment & Settlement Infrastructure in India.
- It has been incorporated as a "Not for Profit" Company under the provisions of Section 25 of Companies Act 1956 (now Section 8 of Companies Act 2013), with an intention to provide infrastructure to the entire Banking system in India for physical as well as electronic payment and settlement systems.
- The ten core promoter banks are State Bank of India, Punjab National Bank, Canara Bank, Bank of Baroda, Union Bank of India, Bank of India, ICICI Bank, HDFC Bank, Citibank N. A. and HSBC.
- In 2016 the shareholding was broad-based to 56 member banks to include more banks representing all sectors.

Additional info

RuPay

- RuPay is an Indigenously developed Payment System – designed to meet the expectation and needs of the Indian consumer, banks and merchant eco-system.
- RuPay supports the issuance of debit, credit and prepaid cards by banks in India and thereby supporting the growth of retail electronic payments in India.
- RuPay is well poised to explore innovative payment opportunities such as Contactless – offline and online to drive adoption of low value payments.
- All RuPay Cards will now have the functionality of NCMC which can enable low value contactless payments (like transit, toll, parking, retail) using Offline technology.
- The alliances with international network partners (Discover Financial Services, Japan Credit Bureau and China Union Pay) provides valuable access to global acceptance footprint and offer world class payment solutions to RuPay cardholders.

IMPS

- With Immediate Payment Service (IMPS), India has become the leading country in the world in real time payments in retail sector.

NACH

- National Automated Clearing House (NACH), an offline web based system for bulk push and pull transactions.
- NACH provides electronic mandate platform to register mandates facilitating paper less collection process for the corporates and banks.
- It provides for both account based and Aadhaar based transactions.

ABPS

- Aadhaar Payment Bridge (APB) System is helping the Government and Government agencies in making the Direct Benefit Transfers for various Central as well as State sponsored schemes.

AePS

- To access these funds at door step & drive the financial inclusion in India, Aadhaar enabled Payment System (AePS) has been introduced.

NFS

- National Financial Switch (NFS) is the largest network of shared Automated Teller Machines (ATMs) in India facilitating interoperable cash withdrawal, card to card funds transfer and interoperable cash deposit transactions among other value added services in the country.

UPI

- Unified Payments Interface (UPI) has been termed as the revolutionary product in the payment system.

Bharat Bill Payment System

- Bharat Bill Payment System is offering one-stop bill payment solution for all recurring payments with 200+ Billers in the categories Viz. Electricity, Gas, Water, Telecom, DTH, Loan Repayments, Insurance, FASTag Recharge, Cable etc. across India.

NETC

- National Payments Corporation of India (NPCI) has developed the National Electronic Toll Collection (NETC) program to meet the electronic tolling requirements of the Indian market.
- It provides an electronic payment facility to customer to make the payments at national, state and city toll plazas by identifying the vehicle uniquely through a FASTag.
- FASTag are Radio-Frequency Identification (RFID) stickers which are affixed on the vehicle windshield and enable the driver to make toll payments electronically while the vehicle is in motion without stopping at the Toll plazas by saving Fuel and Time.

Know! more about Unified Payments Interface (UPI)

- Unified Payments Interface (UPI) is a system that powers multiple bank accounts into a single mobile application (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood.
- It also caters to the “Peer to Peer” collect request which can be scheduled and paid as per requirement and convenience.
- NPCI conducted a pilot launch with 21 member banks. The pilot launch was on 11th April 2016 by Dr. Raghuram G Rajan, Governor, RBI at Mumbai.
- Banks have started to upload their UPI enabled Apps on Google Play store from 25th August, 2016 onwards.

How is it unique?

- Immediate money transfer through mobile device round the clock 24*7 and 365 days.
- Single mobile application for accessing different bank accounts.
- Single Click 2 Factor Authentication – Aligned with the Regulatory guidelines, yet provides for a very strong feature of seamless single click payment.
- Virtual address of the customer for Pull & Push provides for incremental security with the customer not required to enter the details such as Card no, Account number; IFSC etc.
- Merchant Payment with Single Application or In-App Payments.
- Utility Bill Payments, Over the Counter Payments, Barcode (Scan and Pay) based payments.

Participants in UPI

- Payer PSP
- Payee PSP
- Remitter Bank
- Beneficiary Bank
- NPCI
- Bank Account holders
- Merchants

Environment: India Climate Change Knowledge Portal launched



Relevance IN – Prelims (about India Climate Change Knowledge Portal) + Mains (GS III Environment conservation)

What's the NEWS

- Ministry of Environment, Forest and Climate Change, Shri Prakash Javadekar launched the “India Climate Change Knowledge Portal”.

India Climate Change Knowledge Portal

- The portal will be a “single point Information resource” which provides information on the different climate initiatives taken by various Line Ministries enabling users to access updated status on these initiatives.
- The portal captures sector-wise adaptation and mitigation actions that are being taken by the various line Ministries in one place including updated information on their implementation.
- The knowledge portal will help in disseminating knowledge among citizens about all the major steps Government is taking at both national and international levels to address climate change issues.

The eight major components included in the knowledge portal are:

- | | |
|------------------------------|---|
| 1. India's Climate Profile | 5. Mitigation Actions |
| 2. National Policy Framework | 6. Bilateral and Multilateral Cooperation |
| 3. India's NDC goals | 7. International Climate Negotiations |
| 4. Adaptation Actions | 8. Reports & Publications |

Environment Conservation: India only G20 nation on track to meet Paris pact's 2°C goal

Relevance IN – Prelims (about 2°C target under the Paris Agreement) + Mains (GS III Environment conservation – steps taken by the government)

What's the NEWS

- India is the only country among G20 nations which is on track to meet what it had promised in 2015 under the Paris Agreement on climate change unlike the top three emitters — China, the US and the EU.
- India's track record of being the only “2°C compatible” country was flagged in a report released by a coalition of 14 global thinktanks, including TERI, which showed that the other 19 leading and emerging economies were far from achieving their goals.

Know! the report highlights

- Though China has declared that it will be carbon neutral by 2060, it is in the 'highly insufficient' category according to the climate action tracker while India is 'compatible' with the 2-degree warming goal.
- India is not on track for a 1.5-degree Celsius pathway - a target which gained momentum only in 2018 when the UN's Intergovernmental Panel on Climate Change (IPCC) came out with a report showing how the 2-degree Celsius goal (keeping the global average temperature rise within 2 degree Celsius by 2100 from the pre-industrial level) would be devastating for the globe.
- It was assessed that drought and heavy rainfall risks would be much higher at the 2-degree Celsius mark than at 1.5 degree Celsius.
- In fact, no country has 1.5-degree Celsius aligned renewable energy targets.

The 2-degree Celsius target

- India is the only G20 country that is on track to meet the 2015 Paris agreement.
- The 2C target is to keep the Global average temperature increase within two degree Celsius as compared to that of Pre industrial level till 2100.
- Earlier it was set as 1.5 degree Celsius under the Paris agreement signed in 2015. However, India is not on track to achieve the 1.5-degree pathway.

Nationally determined contributions of India

The following are the three national determined contributions of India

- To reduce emission intensity of GDP by about one-third by 2030
- To achieve 40% of installed capacity of electricity from non-fossil fuel sources
- To achieve additional carbon sink of 2.5 billion to 3 billion tonnes of carbon dioxide equivalent forest cover for tree cover by 2030.

Economy: WhatsApp Pay goes official after NPCI approval

Relevance IN – Prelims (about WhatsApp pay + about NPCI) +Mains (GS III Economic development)

What's the NEWS

- The National Payments Corporation of India (NPCI) gave approval to WhatsApp to go live on the United Payments Interface (UPI) in a graded manner.

Know! all about it

- The National Payments Corporation of India (NPCI) allowed Facebook-owned messaging platform *WhatsApp* to start its payments service in the country in a «graded» manner.
- The announcement by NPCI came minutes after it limited a single third party like *WhatsApp* or its rivals like *Google Pay* or Walmart's *PhonePe* to handle only 30 percent of overall UPI transaction volumes by putting a cap.
- NPCI runs the Unified Payments Interface (UPI) used for real-time payments between peers or at merchants' end while making purchases.
- *WhatsApp* has 400 million users in India while other Third Party App Providers (TPAPs) – *Google Pay* had 75 million and *PhonePe* had 60 million
- *WhatsApp* has been running a pilot service for the last two years but was not given a formal go-ahead because of data localisation requirements.
- NPCI has given approval for *WhatsApp* to «Go Live» on UPI in the multi-bank model.
- *WhatsApp* can expand its UPI user base in a graded manner starting with a maximum registered user base of twenty (20) million in UPI.
- A “cap of 30 percent of total volume of transactions processed in UPI” will be applicable on all TPAPs from 1 January 2021
- The cap of 30 percent will be calculated on the basis of the total volume of transactions processed in UPI during the preceding three months on a rolling basis
- Having a cap on the transaction volume will help in de-risking the entire set-up and is essential as UPI, which surpassed two billion transactions a month mark in October

National Payments Corporation of India (NPCI)

- It is an umbrella organisation for operating retail payments and settlement systems in India, is an initiative of Reserve Bank of India (RBI) and Indian Banks' Association (IBA) under the provisions of the Payment and Settlement Systems Act, 2007, for creating a robust Payment & Settlement Infrastructure in India.
- It has been incorporated as a "Not for Profit" Company under the provisions of Section 25 of Companies Act 1956 (now Section 8 of Companies Act 2013), with an intention to provide infrastructure to the entire Banking system in India for physical as well as electronic payment and settlement systems.
- The ten core promoter banks are State Bank of India, Punjab National Bank, Canara Bank, Bank of Baroda, Union Bank of India, Bank of India, ICICI Bank, HDFC Bank, Citibank N. A. and HSBC.
- In 2016 the shareholding was broad-based to 56 member banks to include more banks representing all sectors.

International Organisations: 4th High-Level Meeting of the OPEC-India Dialogue

Relevance in – Prelims (about OPEC-India Dialogue highlights + about OPEC) + Mains (GS II international organisations +GS III Energy security)

What's the NEWS

- The OPEC Secretariat hosted the 4th High-Level Meeting of the OPEC-India Dialogue on 05 November 2020 via videoconference.
- The Meeting was co-chaired by HE Mohammad Sanusi Barkindo, Secretary General of OPEC and HE the Honourable Dharmendra Pradhan, India's Minister of Petroleum and Natural Gas and Minister of Steel.

OPEC-India Dialogue highlights

- The meeting focused on the implications of COVID-19, discussing the repercussions of the pandemic and its significant impact on both the world economy and energy markets, including oil. Participants also deliberated on medium-term energy and oil prospects and challenges.
- India importing around 80% of its oil from OPEC Member Countries,
- OPEC is critical for India's energy requirements as it caters to 78% of India's crude oil demand, 59% of liquefied petroleum gas (LPG) demand, and nearly 38% of its liquefied natural gas (LNG) demand.
- In terms of value, India imported US\$92.8 billion worth of hydrocarbons from OPEC Member Countries during FY 2019-20.
- Both sides drew attention to the close cooperation and engagement in many projects and investments between OPEC Member Countries and India, and other topical issues were addressed, including the Asian Premium and term contracts.
- India was invited to join the Charter of Cooperation as a producer and major oil consumer, to benefit from exchanges on pertinent issues affecting the oil market.

Know! about OPEC

- The Organization of the Petroleum Exporting Countries (OPEC) is a permanent, intergovernmental Organization, created at the Baghdad Conference on September 10–14, 1960, by Iran, Iraq, Kuwait, Saudi Arabia and Venezuela.
- The five Founding Members were later joined by: Qatar (1961) – terminated its membership in January 2019; Indonesia (1962) – suspended its membership in January 2009, reactivated it in January 2016, but decided to



suspend it again in November 2016; Libya (1962); United Arab Emirates (1967); Algeria (1969); Nigeria (1971); Ecuador (1973) – suspended its membership in December 1992, reactivated it in October 2007, but decided to withdraw its membership effective 1 January 2020; Angola (2007); Gabon (1975) - terminated its membership in January 1995 but rejoined in July 2016; Equatorial Guinea (2017); and Congo (2018).

- OPEC had its headquarters in Geneva, Switzerland, in the first five years of its existence. This was moved to Vienna, Austria, on September 1, 1965.
- OPEC's objective is to co-ordinate and unify petroleum policies among Member Countries, in order to secure fair and stable prices for petroleum producers; an efficient, economic and regular supply of petroleum to consuming nations; and a fair return on capital to those investing in the industry.

Other energy related facts

- India has filled strategic petroleum reserves (SPRs) to a capacity of 5.33 MMT under Phase I of its SPR Programme. India will initiate the process of establishing another 6.5 MMT of commercial-cum-strategic petroleum storage at two locations under a PPP model.

Space Awareness: China successfully launches 13 satellites into orbit with a single rocket

Relevance IN – Prelims (about china's recent launch) + Mains (GS III awareness in the field of space)

What's the NEWS

- China successfully sent 13 satellites, including **10 from Argentina**, into the orbit in what was stated to be the biggest launch of foreign satellites by the country

Know! all about the launch

- China successfully sent 13 satellites, including 10 from Argentina, into the orbit in what was stated to be the biggest launch of foreign satellites by the country that could fetch hundreds of millions of dollars to the communist nation.
- The satellites, including 10 commercial remote sensing satellites developed by Argentinian company Satellogic, blasted off atop a Long March-6 carrier rocket from the Taiyuan Satellite Launch Centre in north China's Shanxi Province, state-run Xinhua news agency reported.
- China has been using its space rockets to put satellites of several countries, including close ally, Pakistan.
- It is also the first time that China will launch such a large number of satellites for a foreign client and it will continue to promote the Long March 6 in the international market.



Science & Technology: Thirty Meter Telescope Project

Relevance IN – Prelims (about Thirty Meter Telescope (TMT) project) + Mains (GS III awareness in the field of space)

What's the NEWS

- 2020 Physics Nobel Laureate Prof. Andrea Ghez had worked closely with Indian astronomers on the design of back-end instruments and possible science prospects of the **Thirty Meter Telescope (TMT) project being installed at Maunakea in Hawaii**, which can revolutionized the understanding of the universe and the enigmas in it.

The Thirty-meter telescope (TMT) project

- The Thirty-meter telescope (TMT) project is an international partnership between CalTech, Universities of California, Canada, Japan, China, and India; through the Department of Science and Technology (DST) and Department of Atomic Energy (DAE).

- The Thirty Meter Telescope, which seeks to advance scientific knowledge while fostering connection among the partner countries and their citizens, and in which Indian astronomers worked closely with Prof. Andrez Ghez, is expected to provide facilities with even greater capabilities to gather the observations needed to answer new and emerging questions in astronomy and physics in general.

Know! more about the Thirty Meter Telescope

- The Thirty Meter Telescope is a new class of extremely large telescopes that will allow us to see deeper into space and observe cosmic objects with unprecedented sensitivity.
- With its 30 m prime mirror diameter, TMT will be three times as wide, with nine times more area, than the largest currently existing visible-light telescope in the world.
- This will provide unparalleled resolution with TMT images more than 12 times sharper than those from the Hubble Space Telescope.
- When operational, TMT will provide new observational opportunities in essentially every field of astronomy and astrophysics.
- Observing in wavelengths ranging from the ultraviolet to the mid-infrared, this unique instrument will allow astronomers to address fundamental questions in astronomy ranging from understanding star and planet formation to unraveling the history of galaxies and the development of large-scale structure in the universe.
- The Thirty Meter Telescope is being designed and developed by the TMT International Observatory LLC (TIO).
- The TIO is a non-profit international partnership between the California Institute of Technology, the University of California, the National Institutes of Natural Sciences of Japan, the National Astronomical Observatories of the Chinese Academy of Sciences, the Department of Science and Technology of India, and the National Research Council (Canada).



Science & Technology: Param Siddhi



Relevance IN – Prelims (about Param Siddhi Supercomputer + about NKM) + Mains (GS III awareness in the field of science and technology)

What's the NEWS

- **Param Siddhi, the high performance** computing-artificial intelligence (HPC-AI) supercomputer established under **National Supercomputing Mission (NSM)** at C-DAC has **achieved global ranking of 63 in TOP 500** most powerful non-distributed computer systems in the world

Know! more about the supercomputer

- Param Siddhi Supercomputer is built on the NVIDIA DGX Super POD reference architecture networking along with C-DAC's indigenously developed HPC-AI engine, software frameworks and cloud platform and will help deep learning, visual computing, virtual reality, accelerated computing, as well as graphics virtualization.
- Param Siddhi has got the recognition among non-distributed computer systems. A non-distributed computer system has all its components at a single location. In this case, Param Siddhi is in Pune.
- The supercomputer with Rpeak of 5.267 Petaflops and 4.6 Petaflops Rmax (Sustained) was conceived by C-DAC and developed jointly with support of Department of Science and Technology (DST), Ministry of Electronics and Information Technology (MeitY) under NSM.
- Param Siddhi-AI will empower the national academic and R&D institutions as well as industries and start-ups spread over the country networked on the **national supercomputer grid over the National Knowledge Network (NKN)**

Know! the benefits of AI System

- The AI system will strengthen application development of packages in areas such as advanced materials, computational chemistry & astrophysics
- This will accelerate R&D in war against COVID-19 through faster simulations, medical imaging, genome sequencing and forecasting
- It is a boon for application developers and will help testing of weather forecasting, geo-exploration packages for oil and gas recovery; packages for aero-design studies

Additional Info

National Knowledge Network (NKN)

- The Government's decision to set up National Knowledge Network was announced in the Budget Speech, 2008-09.
- An initial amount of Rs. 100 crore for FY 2008-09 was allocated to the Department for establishing the National Knowledge Network.
- A High Level Committee (HLC) was set up under the Chairmanship of Principal Scientific Adviser to the Government of India to coordinate and monitor the establishment of the National Knowledge Network.
- Government has approved the project on Establishment of National Knowledge Network in March, 2010 with an outlay of Rs. 5990 Cr. over a period of 10 years. National Informatics Centre (NIC) is the implementing agency.
- The objective of the National Knowledge Network (NKN) is to interconnect all institutions of higher learning and research with a high speed data communication network to facilitate knowledge sharing and collaborative research.
- NKN will facilitate advanced distance education in specialized fields like engineering, science, medicine etc. as well as enable an ultra-high speed eGovernance backbone.
- It will bridge the existing knowledge gap in the country and help the country evolve as a Knowledge Society and also spur economic activities in the Knowledge domain.

The application areas envisaged under the National Knowledge Network cover

Agriculture

- Education
- Health
- e-governance
- Grid Computing (High Performance Computing)

Science & Technology: Swarnajayanti Fellowship

Relevance IN – Prelims (about Swarnajayanti Fellowship + Duchenne Muscular Dystrophy)

What's the NEWS

- Swarnajayanti Fellow may provide new genetic treatment for thalassemia, duchenne muscular dystrophy, haemophilia

Duchenne Muscular Dystrophy

- Duchenne Muscular Dystrophy, a severe type of muscle weakness that usually begins at an early age and worsens quickly, may soon have a new strategy of treatment through genetic regulation.
- **There is no known cure for duchenne muscular dystrophy.** Treatments usually aim to control symptoms to improve quality of life.
- Sandeep Eswarappa, Assistant Professor Indian Institute of Science (IISc), Bengaluru one of the 21 recipients of this year's Swarnajayanti Fellowship of the Department of Science and Technology (DST), proposes to suppress the disease-causing premature stop codon or the genetic process that initiates these diseases.

Know! about the new genetic treatment

- In case of any protein formation genetic information present in the genome is first transcribed into an mRNA, which in turn is translated into a protein.
- Protein synthesis or translation is executed by macromolecular machinery called ribosomes.
- Ribosomes start this process at a specific location on an mRNA called 'start codon' and terminate at a stop signal called 'stop codon'.
- In case of diseases with nonsense mutations, such mutations result in premature stop signal in mRNA often resulting in non-functional truncated protein

Know! about the Swarnajayanti Fellowships

- Govt. of India had instituted a scheme "The Swarnajayanti Fellowships" to commemorate India's fiftieth year of Independence.
- Under this scheme a selected number of young scientists, with proven track record, are provided special assistance and support to enable them to pursue basic research in frontier areas of science and technology.
- The fellowships are scientist specific and not institution specific, very selective and have close academic monitoring..
- The award consists of a Fellowship of Rs 25000/- per month in addition to the salary drawn from the parent Institute along with a Research Grant of Rs 5 lakh per annum by Department of Science and Technology for a period of 5 years, while the project submitted by the selected Fellows will be considered for funding by the Science & Engineering Research Board (SERB)
- Scientists selected for the award will be allowed to pursue unfettered research with a freedom and flexibility in terms of expenditure as approved in the research plan.
- The project should contain innovative research idea and it should have a potential of making impact on R&D in the discipline.
- The duration of the fellowship will be for a period not exceeding five years.

Information Technology: Bengaluru Tech Summit



Relevance IN – Prelims (about BTS 2020) + Mains (GS II government policies and interventions + GS III Information technology)

What's the NEWS

- Prime Minister inaugurated Tech Summit in Bengaluru today via video conference.

- The summit is organised by the **Government of Karnataka along with Karnataka Innovation and Technology Society (KITS), Karnataka government's Vision Group on Information Technology, Biotechnology & StartUp, Software Technology Parks of India (STPI)** and MM Activ Sci-Tech Communications.

Know! about Bengaluru Tech Summit (BTS 2020)

- India's flagship event now going Digital between 19th and 21st November with the theme 'NEXT IS NOW'.
- BTS 2020 will witness some world's best minds streaming their vision, leaders forecasting the future, technocrats unravelling new products, startups presenting cutting edge ideas.
- The Bangalore IT.com established in 1998 and Bangalore BIO in 2000 are the two events of Government of Karnataka that has positioned Bengaluru as one of the most dynamic cities in the world.
- In the year 2017, these two leading events were brought together under one umbrella event Bengaluru Tech Summit
- Since then BTS has become the place of convergence for the leading cross-sector tech companies to startups, technocrats to young innovators, policymakers to investors, researchers to academia, facilitating dialogue and collaborations.

Additional info

Karnataka Innovation and Technology Society (KITS)

- Karnataka Innovation and Technology Society (KITS) helps the Department of Information Technology and Biotechnology in facilitating and promoting the Information Technology and Biotech sectors in the state.
- KITS acts as a synergic liaison between Industry and Government
- It is the nodal agency for implementing the decisions of the Vision Group on IT and the Vision Group on BT.

Software Technology Parks of India (STPI)

- STPI has played a seminal role in accomplishing India as an Information Technology superpower.
- Software Technology Parks of India, is an autonomous body under Ministry of Electronics and Information Technology (MeitY) Govt. of India.
- It is conceived with the distinct objective of encouraging, promoting and boosting software exports from India, and maintains internal engineering resources to provide consulting, training and implementation services.

Vision Group on (Information Technology, Biotechnology & StartUp)

- The three independent Vision Groups constituted by Government of Karnataka on Information Technology, Biotechnology and Start-Up consist of industry captains, research heads, and academia.
- These Vision Groups act as a think tank of Government of Karnataka and help government in formulating various policies and initiatives to foster the technology ecosystem in the state.
- The Vision Groups have also been instrumental in connecting the state globally with leading companies, research & academic institutes and innovation hotspots for collaborations.

Infrastructure Development: REINVEST- 2020

EMPOWERING THE NATION WITH THE POWER OF RENEWABLE ENERGY

3rd GLOBAL RE-INVEST, INDIA
26-28 NOVEMBER • NEW DELHI
• TO BE HELD ON A VIRTUAL PLATFORM

Narendra Modi
Prime Minister

SMALL HYDRO ENERGY

BIO-ENERGY

SOLAR ENERGY

3rd GLOBAL RE-INVEST

RelevanceIN–Prelims(aboutREINVEST2020)+Mains(GSIIIinfrastructuredevelopment-energy)

What's the NEWS

- Prime Minister will inaugurate the virtual 3rd Global Renewable Energy Investment Meeting and Expo (RE-INVEST 2020), on 26 November 2020.

Know! about the 3rd RE-Invest meet

- The **3rd RE-Invest** will build upon the success of the first two editions held in 2015 and 2018 and provide an international forum for investment promotion in renewable energy.
- It will also send signals to the global renewable community about India's commitment to the development and scaling up of renewable energy to meet its energy requirements in a sustainable manner.
- RE-INVEST 2020 will include a two-day virtual conference on renewables and future energy choices and an exhibition of manufacturers, developers, investors and innovators engaged in the clean energy sector.
- RE-INVEST will inform about the Government's plans and programmes and also foster engagement among industry, investors and other stakeholders to take forward India's renewable growth story.
- It would facilitate collaboration and cooperation with key stakeholders in India, which has emerged as one of the world's largest renewable energy markets today.

India's renewable energy (achievements so far)

- The Minister informed that during the last six years, India's renewable energy capacity has increased by two and half times. Solar energy capacity has increased 13 times.
- The share of non-fossil fuel energy sources in our power generation capacity has increased to 136 GW, or about 36 per cent of our total capacity.
- By 2022, the share is expected to further increase to over 220 GW.
- The PM- KUSUM scheme, aims to replace 20 lakh diesel pumps with stand-alone Solar Pumps, solarize 15 lakh grid connected pumps, and 10 GW decentralized solar power plants in uncultivable lands of farmers within next four years.
- Initiative to include solarisation of agricultural feeders under the scheme has been taken. This would significantly reduce the subsidy burden of States.

Know! more about the 3rd Global RE-INVEST

- India's biggest Renewable Energy event, will be held online from 26 – 28 November 2020.
- The 3rd Global RE-INVEST Renewable Energy Investors Meet & Expo, organised by the Ministry of New and Renewable Energy (MNRE), Government of India, will feature a 3-day digital conference on renewables and future energy choices.
- There will also be a virtual exhibition of manufacturers, developers, investors and innovators.
- RE-INVEST 2020 will be a digitally-enabled global platform based on the theme 'Innovations for Sustainable Energy Transition'.
- It aims to accelerate the worldwide effort to scale up development and deployment of renewable energy and connect the global investment community with Indian energy stakeholders.
- The 3rd Global RE-INVEST provides an opportunity to RE stakeholders from across the globe to showcase Renewable Energy Products, Services, Technologies, Innovations, Best practices and success stories on a customized official digital platform to focused partners and investors.

Environment conservation: Climate Transparency report 2020

Relevance IN – Prelims (about Climate Transparency report highlights)

What's the NEWS

- India is the only country on track among the G20 nations to meet its climate change mitigation commitments, according to a the 2020 Climate Transparency report published
- Climate Transparency, an international partnership of 14 research and non-governmental organizations, examined efforts to combat climate change among the G20 nations — examining their climate goals and actions taken.

Know! the report highlights (India)

- The report found that India's "fair share" climate targets that it set under the 2015 Paris Agreement as well as the actions it's taken in the years since make it "compatible" with the upper goal of curbing global warming by 2 degrees Celsius by the end of the century.

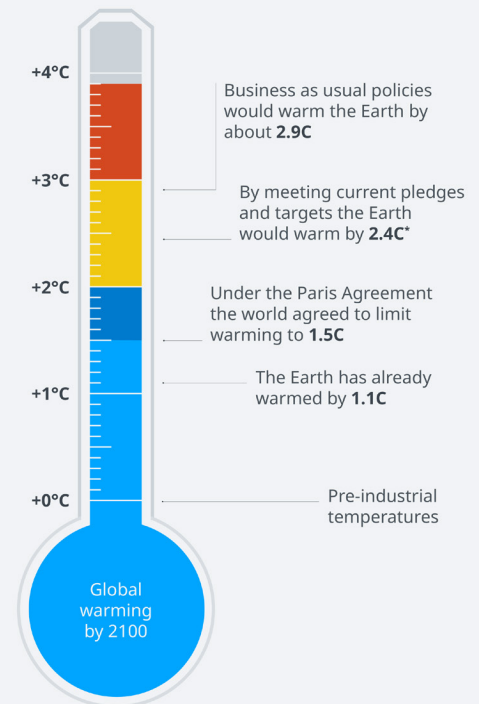
- India has promised to reduce its emissions intensity by 33-35% by 2030 and took actions in its energy, waste, industry, transport and forestry sectors
- The report noted that India continues to not be on track to reach the Paris Agreement's long-term 1.5 C target.
- India could be a “global leader” if it didn't build new coal fired power and phased out the use of coal by 2040.

Know! the report highlights (World)

- According to the report, other nations and the European Union's targets do not go far enough to curb global warming between 1.5 to 2°C, and their actions have fallen short of the targets set when the Paris agreement was ratified.
- Projected temperature increases under these commitments are now expected to be more than 2.7 C of warming by 2100.
- The report also called for a reduction of global CO2 emissions to curb global warming.
- China's GHG emissions continue to be above the G20 average and are expected to peak by 2030.
- The report called for a withdrawal of coal pipeline projects at home and abroad to limit air quality issues and emissions.
- The US, which formally exited the Paris Agreement earlier this month, has GHG emissions more than double the average of all G20 nations.
- US transport emissions per capita are over four times the G20 average and even increased by 3.6% from 2016-18.

Projected global warming by 2100

Rise in temperatures above pre-industrial



*China's new climate goals have reduced this estimate from 2.7°C

Source: Climate Action Tracker, September 2020



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