



PIB ANNUAL COMPLITATION PRELIMS 2023

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Annual Coverage
Current Affairs
Goverment Schemes
Related Concept
News From Various Sources
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FARN FINITE

An initiative By Pradeep Kumar (SOCIOLOGY EXPERT)

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The information in this magazine is intended to provide users with resources and information which they may find useful and of interest.

We take all reasonable steps to keep this information current and accurate, but errors can occur.

We express our gratitude to all our team members and thankful to all the advisors for making first step in publishing a small magazine.

Our Methodology for this Magazine

We have used official website pib.nic.in to collect important press release important for Exam

The topics has been categorised subject wise so that is is easy for aspirants to read in flow and relate the topics

Background information has been provided so static related to current can be covered

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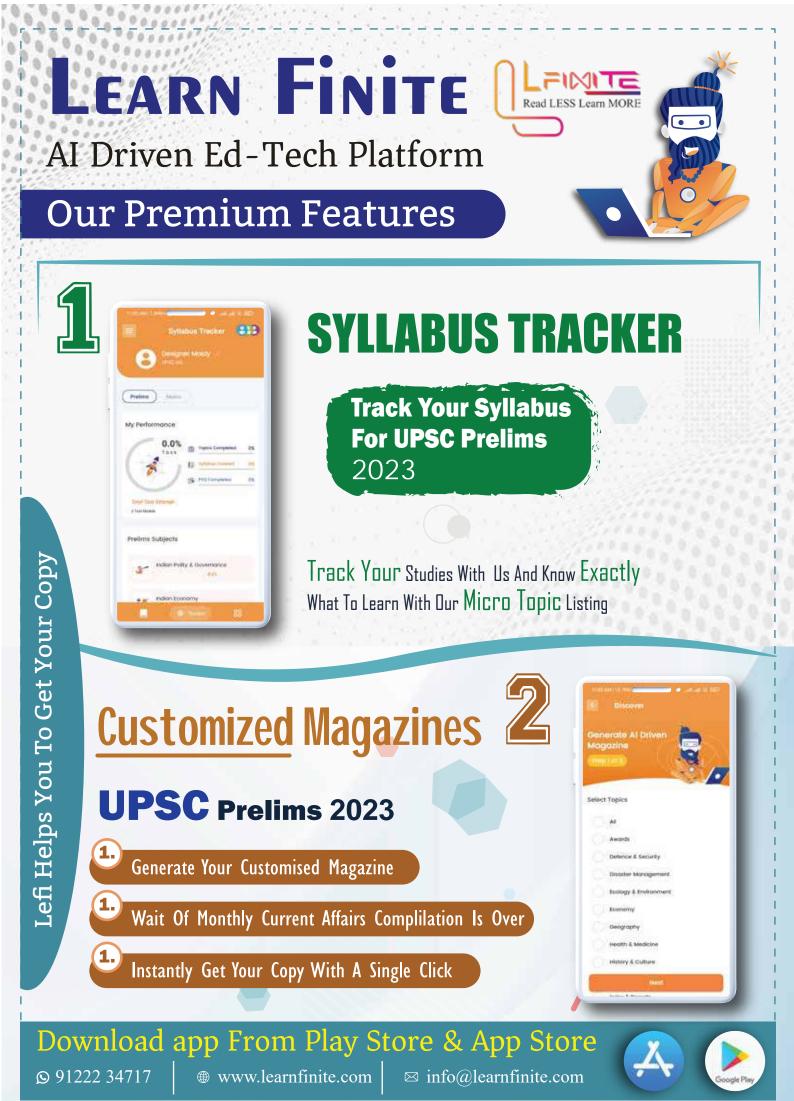
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History & Culture

Rani Velu Nachiyar

In News

PM remembers Rani Velu Nachiyar on her birth anniversary.

About Rani Velu Nachiyar

- Rani Velu Nachiyar is remembered as the first queen from India to fight against the British East India Company.
- She was a princess of Ramanathapuram.
- Born in 1730, Velu Nachiyar was the only child of Raja Chellamuthu Vijayaragunatha Sethupathy and Rani Sakandhimuthal of the Ramnad kingdom.
- She was trained in martial arts and was also a scholar with proficiency in many languages.
- She was drawn into battle when her husband, the king of Sivaganga was killed by Company soldiers.
- She sought an alliance with Hyder Ali of Mysore in order to launch a campaign against the East India Company.
- The queen arranged a suicide attack on a place where the Company stored its ammunition and blew them up.
- Her daughter succeeded her in 1790.
- She passed away in 1796.
- She is remembered as 'veeramangai'.

Jagannath Temple Act of 1954

In News

Recently, in a historic decision, the Odisha state cabinet has approved amendments to the Sri Jagannath Temple Act of 1954.

Provisions of the new act

- The power will now be delegated to temple administration and concerned officials for sale and lease of land in the name of Jagannath temple.
- Unlike earlier, no approval will be required from the state government for the process.
- The Section 16 (2) of the act states that no immovable property taken possession of by the temple committee shall be leased out, mortgaged, sold or otherwise alienated except with the previous sanction of the State Government.

Jagannath Temple

- The temple is believed to have been constructed in the 12th century by King Anatavarman Chodaganga Deva of the Eastern Ganga Dynasty.
- Jagannath Puri temple is called 'Yamanika Tirtha' where, according to the Hindu beliefs, the power of 'Yama', the god of death has been nullified in Puri due to the presence of Lord Jagannath.
- This temple was called the "White Pagoda" and is a part of Char Dham pilgrimages (Badrinath, Dwaraka, Puri, Rameswaram).
- There are four gates to the temple- Eastern 'Singhdwara' which is the main gate with two crouching lions, Southern 'Ashwadwara', Western 'Vyaghra Dwara and Northern 'Hastidwara'. There is a carving of each form at each gate.

Sacred Ensembles of the Hoysala

In News

The Hoysala Temples of Belur, Halebid and Somnathapura in Karnataka have been finalized as India's nomination for consideration as World Heritage for the year 2022-2023.

Sacred Ensembles of the Hoysala:

- The 'Sacred Ensembles of the Hoysala' have been on UNESCO's Tentative List since 2014.
- The sacred ensembles of the Hoysalas were built in the 12th-13th centuries and represented here by the three components of Belur, Halebid and Somnathapura.
- The Hoysala temples have a basic Dravidian morphology.
- The Hoysala architecture made selections of features from other temple typologies which were modified and complemented with their own particular innovations.

Hoysalesvara Temple, Halebidu:

- Halebeedu (formerly known as Dwarasamudra) was the ancient capital of the Hoysalas just 17 km away from Belur.
- In the 14th century, the armies of Alauddin Khilji and Muhammad Tughlak defeated the Hoysalas and raided their empire. Halebeedu means "old house/old ruins".

Keshava Temple, Somanathapura:

- The Keshava temple at Somanathapura is another magnificent Hoysala monument, perhaps the last.
- This is a beautiful Trikuta Temple dedicated to Lord Krishna in three forms Janardhana, Keshava and Venugopala.
- The Keshava Temple at Somanathapura was constructed by a commander of the Hoysala Army, Somanatha.

Stone idol of goat head Yogini

In News

A 10th century stone-headed Yogini idol had been returned to the state of Uttar Pradesh.

About the idol:

- The sculpture of a goat-headed Yogini idol belonged to a group of stone deities in sandstone and was installed in Lokhari temple.
- The Yogini cult and temples were studied by an Indian scholar at the National Museum in New Delhi and observed that this art form had surfaced in the art market in London in 1988.
- The India Pride project Singapore and Art Recovery International, London assisted the High Commission in the identification and requisite documentation of the statue.
- The statue has been handed over to the Archaeological Survey of India.

Kathakali Dance

In News

The Prime Minister expressed his grief over the demise of the noted Kathakali dancer Ms. Milena Salvini.

Kathakali Dance

• Chakiarkoothu, Koodiyattam, Krishnattam and Ramanattam are few of the ritual performing arts of Kerala which have had a direct influence on Kathakali in its form and technique.

- Kathakali is a blend of dance, music and acting and dramatizes stories, which are mostly adapted from the Indian epics.
- Heavy make-up and stunning costumes (elaborate masks, huge skirts and big head-dresses) are used.

Launch of Pandit Jasraj Cultural foundation

In News

The Prime Minister offered tribute to Pandit Jasraj on the occasion of his birth anniversary and addressed the launch of the Pandit Jasraj Cultural Foundation.

Pandit Jasraj:

- Pandit Jasraj is regarded as the doyen of Hindustani classical music and will be immortal for his pathbreaking contributions towards the enrichment of classical music.
- He was born on the 28th of January 1930 at Hisar (At present, Fatehabad, Haryana) which was a part of Punjab under British rule.
- He devoted 75 years of his career to classical music that accorded him national and international fame.
- This maestro was a recipient of Padma Shri, Padma Bhushan and Padma Vibhushan.
- Pandit Jasraj died at the age of 90 on August 17, 2020.
- He belonged to the Mewati Gharana which is a school of Hindustani classical music.
- He is popularly known for his memorable performances of classical and semi-classical vocal music, devotional music and film soundtracks.

About Mewati Gharana:

- The Mewati Gharana is a musical family (Gharana) of Hindustani classical music founded in the late 19th century by Ustad Ghagge Nazir Khan.
- Ustad Ghagge Nazir Khan belonged to the kingdom of Jodhpur in the Mewat region in Rajasthan.
- This was the reason for which the evolved musical tradition under the patronage of Ustad Ghagge Nazir Khan became popular as Mewati Gharana.

Heli Borne Survey Technology

In News

The Central Ground Water Board carried out a heli bourne survey to gather aquifer related information in the arid and semi-arid regions of Rajasthan, Gujarat and Haryana under the Groundwater management and regulation scheme.

About the Heli-borne survey:

- It is a geophysical mapping technique that provides high-resolution 3D images for subsurface up to a depth of 500 metres below the ground level.
- This survey can help in the potential mapping of groundwater in arid areas.
- This was developed by the collaboration of CSIR and the National Geophysical Research Institute.

Chhatrapati Shivaji Maharaj

In News

The Prime Minister commemorated the captivating leadership of Shivaji Maharaj on his birth anniversary and paid homage to this gallant personality.

About Shivaji Maharaj:

- He is remembered for his excellent military strategy and leadership roles in the advocacy of social welfare with a committed vision.
- He is the founder of the Maratha empire.
- Every 19th day of February is celebrated as Chhatrapati Shivaji Maharaj Jayanti.
- He was a member of the Bhonsle clan of Marathas.
- Shivaji was crowned as the Chhatrapati (Monarch) in 1674 at Raigad.
- He promoted the usage of Sanskrit and Marathi language in the court and in administration.
- The necessity of naval force to embolden the military set up was addressed for the first time by Shivaji Maharaj. Therefore, he is known to be the Father of the Indian Navy.

Chaitanya Mahaprabhu

In News

The President of India in a recent event said that Sri Chaitanya Mahaprabhu has a special place among those saints who promoted Bhakti-Marg.

Chaitanya Mahaprabhu

- Chaitanya Mahaprabhu is a 15th-century Indian Saint.
- He was born in Nabadwip (in present-day West Bengal) in 1486.
- His mode of worshiping lord Krishna with ecstatic song and dance has a great influence on Vaishnavism in Bengal.
- He was the chief proponent of the Vedantic philosophy of Achintya Bheda Abheda Tattva.
- Mahaprabhu founded Gaudiya Vaishnavism (Brahma-Madhva-Gaudiya Sampradaya).
- He expounded Bhakti yoga and popularized the chanting of the Hare Krishna Maha-mantra.
- He has composed the Shikshashtakam (eight devotional prayers).

Maharaja Surajmal

In News

The Prime Minister pays tributes to Maharaja Surajmal on his Jayanti.

Maharaja Surajmal

- Maharaja Suraj Mal or Sujan Singh was a Hindu Jat ruler of Bharatpur in Rajasthan was born in 1707.
- Under him, the Jat rule covered present-day Delhi and districts of Agra, Aligarh, Firozabad, Ghaziabad, Gurgaon, Hathras, Kanpur, Mathura, Meerut, and Muzaffarnagar.
- Modern historians describe him as "the Plato of the Jat tribe" and "Jat Odysseus", because of his political sagacity, steady intellect and clear vision.
- Lohagarh Fort was built in the 18th century by Raja Suraj Mal and is the only fort in India that no one in history has won.
- After the defeat of the Marathas by the Afghans in the Third Battle of Panipat, Maharaja Suraj Mal gave food and shelter to thousands of Maratha survivors and received them with tender warmth and hospitality, giving free rations to every Maratha soldier or camp follower.
- Suraj Mal was killed in an ambush by the Rohilla troops in December 1763 near Hindon River, Delhi.

Sustainable Cities India Program'

In News

A Memorandum of Understanding has been signed between the World Economic Forum and the National Institute of Urban Affairs (NIUA) to work in collaboration towards making the cities sustainable.

About the Initiative:

- The aim is to create an environment for cities to generate decarbonisation solutions involving efficiency in energy and transport, building an environment for a low carbon future.
- This will boost India's futuristic targets to mitigate the issues of climate change with the active participation of cities that will set upon an transformative journey towards sustainable solutions.
- It will involve a city sprint process and a toolbox of solutions for the decarbonisation in five to seven cities for a period of two years.
- The city sprint process is a series of multisectoral, multi-stakeholder workshops that engages businesses, government and civil society to join the initiative of reducing the carbon footprint through clean electrification and circularity. It will provide a roadmap for net zero emissions through planning and action.
- This is a welcoming initiative which will facilitate India to achieve its net zero emissions targets by 2070.

Swaminatha lyer

In News

The Prime Minister paid homage to Swaminatha lyer on his birth anniversary (on the 19th of February) commemorating his significant contributions to promote the cultural richness of the Sangam period.

About Swaminatha lyer (also known as 'Tamil Thatha'):

- Swaminatha played a revolutionary role in the revival of forgotten works of Tamil literature.
- The Tamil poet and nationalist, Subramania Bharati equated Swaminatha with the sage Agastya who was among the first exponents of Tamil.
- He was born in a small village called Suryamoolai near Kumbakonam in Tamil Nadu.
- He was a Tamil scholar and had joined the Government Arts College at Kumbakonam.
- The palm leaf manuscripts, a Buddhist work, were transcribed by him into paper and edited with special attention.
- The Silappathikaram, Purananooru and Manimekalai were some of the palm leaf manuscripts transcribed by Swaminatha and received enormous appreciation.
- He was awarded with the title 'Mahamahopadhyaya' which decodes as 'Great Teacher', by the Government of Madras in 1906.
- The title of 'Dakshina Kalanidhi' was awarded to him by Sri Sankara Swamigal.
- In order to recognise his service towards reviving Tamil culture and language, the Madras University accorded Swaminatha with the title of 'Doctor'.
- He published his autobiography named as 'En Saritham' which appeared in the Tamil weekly called 'Ananda Vikatan'. It was later published as a book.

Global Summit on 'Reimagining Museums in India'

In News

The Ministry of Culture has organized a Global Summit on 'Reimagining Museums in India'.

Global Summit on 'Reimagining Museums in India':

• The Summit was organized by the Minister of Culture under the aegis of Azadi ka Amrit Mahotsav.

- **Objectives:** To discuss best practices and strategies of museum development and management from India and around the world.
- The Global Summit will bring together leading luminaries, domain experts and practitioners in the field of museum development and management from India and around the world to discuss best practices and strategies.

Medaram Jathara

In News

Asia's largest tribal festival started with enormous traditional vigour experiencing a large number of pilgrims and devotees from all across the country.

The Medaram Jathara:

- It is the second-largest fair in India after Kumbh Mela and is celebrated by the Koya tribe of Telangana.
- The celebration continues for four days.
- This festival is with the objective of honouring the goddesses Sammakka and Saralamma. Saralamma was the daughter of Sammakka.
- It is celebrated once every two years in the month of Magha (February) on the full moon day.
- The idol of Saralamma is installed in the temple at Kannepalli, a small village near Medaram.
- The rituals are performed by the Koya priests called Kaka Vaddes.
- Traditional music is played with:
 - Doli cylindrical drum
 - Akkum Brass blowing instrument
 - Thootha Kommu Bison horn blowing instrument
 - \circ Cymbals

About the Koya Tribes:

- Koyas are identified as a warrior tribe.
- They speak Odia and Telugu languages.
- The last queen of Malkangiri named Bagaru Devi had a large Koya army with the help of which she defeated Ramachandra Deva III of Jeypore.
- In 1880, during the British period, the Koya rebellion took place under the leadership of Koya youth Tama Dora.
- They opposed the British government in many ways.
- The principal tribe is found in the Malkangiri district of south Odisha.
- They are also found in Telangana, Andhra Pradesh and Chattisgarh apart from Odisha.
- Koyas are widely distributed in Kalimela, Mottu, Podia, Mathili and Kokonda blocks.
- The Koyas of Malkangiri are ethno-culturally connected to Bison-horn Murias of adjacent Chhattisgarh.
- They are known as Madia in the Sukuma region and Dorla in the Bastar region of Chhattisgarh.

Shri Guru Ravidas

In News

The Prime Minister offered homage to the Bhakti saint Shri Guru Ravidas on the occasion of Ravidas Jayanti.

About Guru Ravidas:

- He was a saint of the Bhakti Movement during the 15th to 16th century and was a mystic poet.
- Ravidas Jayanti is celebrated on Magh Purnima which falls on the full moon day of the Magh month.
- Ravidas Jayanti is identified based on the Purnima tithi.

- He propagated the Ravidassia religion that comprised his teachings directed against the prevalent evil practices of society.
- He was a contemporary to saint Kabir.
- He is venerated as a social reformer and a spiritual personality in many parts of India.
- His devotional verses were inserted in the Sikh scripture, Guru Granth Sahib.
- Every year, on his birth anniversary, Shabad Kirtan is performed in Ravidas Mandir which is located in Delhi.

Statue of Equality

In News

In order to promote the doctrine of equality, the Prime Minister unveiled the 216 feet tall statue of saint Shri Ramanujacharya in Hyderabad.

About the Statue

- This statue is made of panchaloha which is a combination of five metals namely gold, silver, copper, brass and zinc.
- It is mounted on a 54 feet high base building named 'Bhadra Vedi'.
- The Bhadra Vedi has floors devoted to a Vedic digital library and research centre, ancient Indian texts, a theatre, an educational gallery detailing many works of Shri Ramanujacharya.
- The statue was installed in the ashram of Sri Tridandi Chinna Jeeyar Swamy.
- The statue has been conceptualised by Sri Chinna Jeeyar Swami of Sri Ramanujacharya ashram.
- The statue is surrounded by Divya Desams which are ornately carved temples.

Shri Ramanujacharya:

- Shri Ramanujacharya, the 11th century Bhakti Saint, advocated the message of equality that was propagated across humanity.
- He put forth his composition for Sanskrit Granth and gave the Tamil language equal importance in Bhakti Marg.
- He preached the concept of equality among people irrespective of caste and creed which is also reflected in the Preamble of the Indian Constitution.
- Vishishtadvaita philosophy is the non-dualistic school of Vedanta philosophy.
- He fought for the entry of Dalits into the temples and propagated that for a human being, the character is important and not caste.

Pandit Deendayal Upadhyay

In News

The Prime Minister paid homage to the illustrious personality of Pandit Deendayal Upadhyay on his death anniversary.

About Deendayal Upadhyay:

- He promulgated the principles of sarvodaya (progress for all) and swadeshi (self-sufficiency).
- He wrote a biography on Shankaracharya.
- His village in the Mathura district called Chandrabhan has been named after him as Deendayal Dham.
- He popularised the political philosophy of integral humanism which encourages simultaneous and integrated programmes of the body, mind, intellect and soul of each human being.
- Pandit Deendayal's vision for India was in alignment with decentralised polity and an economy that reflects self-reliance.
- He opposed the flourishing of western concepts like individualism, democracy, socialism, communism or capitalism in India.

Khwaja Moinuddin Chishti

In News

The Union Minister for Minority Affairs offered "Chadar" on behalf of the Prime Minister at **Ajmer Sharif Dargah** in Rajasthan on the occasion of 810th Urs of **Khwaja Moinuddin Chishti**.

Khwaja Moinuddin Chishti

- Khwaja Moinuddin Chishti was born in **Sijistan** in Iran in **1141-42** He arrived in Delhi during the reign of the **Iltutmish**.
- He settled in the Indian subcontinent in the early 13th-century, where he promulgated the famous **Chishtiyya** order of Sunni mysticism.
- Later he moved to Ajmer, where he started living and preaching.
- Chishti was soon able to draw the local populace, poor people, peasants, and nobles from far and wide.

Ajmer Sharif Dargah

- The tomb of Chishti became a site of worship following the preacher's death in 1236.
- Rulers like Muhammad bin Tughluq and Akbar, have said to made their famous visits to the tomb.
- In the present day, the dargah continues to be one of the most popular sites of religious visitation for Sunnis.
- The Dargah complex of Chishti was built in Indo-Islamic style of architecture.
- A golden crown offered by Nawab Haider Ali Khan of Rampur sits on top of it and a lotus adorns the dome.
- The materials used include marble, brick and sandstone.

100 years of Chauri Chaura Incident

In News

The Prime Minister remembered the historic Chauri Chaura incident on the completion of 100 years in 2022.

Chauri Chaura Incidnet

- On 4th February, volunteers congregated in the town, and after the meeting, proceeded in a procession to the local police station, and to picket the nearby Mundera bazaar.
- The police fired into the crowd killing some people and injuring many volunteers.
- In retaliation, the crowd proceeded to set the police station on fire.
- Some of the policemen who tried to escape were caught and battered to death. A lot of police property, including weapons, was destroyed.

Red Fort Festival - Bharat Bhagya Vidhata

In News

Union Minister of Women and Child Development, Smt. Smriti Zubin Irani to inaugurate the ten-day mega 'Red Fort Festival - Bharat Bhagya Vidhata' at Red.

Details

- The festival will feature a wide range of experiences including "Matrubhumi" –Projection Mapping Show, YATRA - A 360° immersive experience, a Cultural Parade, Khao Galli, Live performances at Rang Manch, Dances of India, AnokheVastra, Khel Manch and Khel Gaon and Yoga on the Go.
- The Red Fort festival is to commemorate the heritage of the country and culture of every part of India will be depicted under Bharat Bhagya Vidhata.
- Bharat Bhagya Vidhata will help everyone to appreciate the diversity of India.

- The Ministry of Culture, Government of India, along with Red Fort's "Monument Mitra", Dalmia Bharat Ltd. have conceptualized the mega event as a part of Azadi ka Amrit Mahotsav.
- Red Fort Festival Bharat Bhagya Vidhata promises a rich cultural treat to visitors and aims to promote heritage conservation and tourism.

Yamunotsav

In News

As part of Azadi Ka Amrit Mahotsav celebrations, the National Mission for Clean Ganga (NMCG) organized Yamunotsav in association with a group of NGOs at ASITA East River Front, ITO Bridge, to celebrate the glory of Yamuna with a "**pledge to keep it clean**".

About Yamunotsav

- Under Namami Gange Programme, the focus was on the main stem of Ganga Basin and the positives results are now showing.
- The target now is to clean River Yamuna and ensure that 3 big STPs being constructed are completed by December 2022 with the support of stakeholders, preventing all the major drains and dirty water from falling into Yamuna.
- The festivity was in the air at the Yamuna ghat where people from all age groups revered River Yamuna and took part in creating a momentum to clean the river.
- One of the most inspiring corners at the event was a board with pictures and paintings made by under privileged children.
- To spread the message of 'no-plastic', kullads (earthen glasses) were kept on the water stations to drink water.

Matrubhumi

In News

- As ten day Red Fort Festival Bharat Bhagya Vidhata completed recently, the Projection Mapping Show 'Matrubhumi' is receiving an overwhelming response at the cultural extravaganza.
- The show will be a permanent fixture at the historic Red Fort and will run throughout the year.

About Matrubhumi

- The projection mapping show 'Matrubhumi' offers a grand spectacle using light, sound and music' with stare-of-the-art technology.
- The projection mapping show highlights rich and diverse culture of India through its long, amazing, and chequered history and stirs numerous emotions of patriotism to instil pride among the citizens.
- With 'Matrubhumi,' the Ministry of Culture & Tourism, in association with Monument Mitra, Dalmia Bharat Limited, are collaboratively highlighting India's rich history and heritage to newer generations through engaging interactive sequences projected at Red Fort.

Hindu New Year Festival

In News

The President of India extended greetings to the whole nation and Indians all across the world on the occasion of Ugadi.

About Ugadi

- This festival marks the beginning of the traditional New Year in India.
- It is known by different names across the country:
- Andhra Pradesh, Karnatakaand Telangana: Ugadi or Yugadi.
- Maharashtra:Gudi Padwa
- Sindhis:Cheti Chand
- Kashmir: Navreh
- The first day of the Hindu lunisolar calendar's month of Chaitra is celebrated as Ugadi.
- According to Hindu mythology, it is believed that Lord Brahma started the creation of the universe on Ugadi.

Geological Heritage Sites

In News

Geological Survey of India (GSI) has identified two geological heritage sites in the Indian Himalayan Region of India.

Details

- Siwalik Fossil Park
- Stromatolite bearing Dolomite /Limestone of Buxa Formation

About Sites

- The Siwalik Fossil park displays a rich collection of vertebrate fossils recovered from the Siwalik rocks of the area of Plio-Pleistocene age. The deposition of Siwalik sediments took place in the narrow linear depression, called the 'fore deep', which started developing in front of the Himalayas since the inception of its uplift in the middle Miocene.
- The Geoheritage site at Mamley exposes lithounits of Buxa Formation, Daling Group of Proterozoic age. The dolostones are profusely stromatolitic (Precambrian algal structures). This site provides one of the rare examples of early life in Sikkim Himalaya.

Utsav Portal

In News

- Union Minister for Tourism, Culture and DONER Shri G. Kishan Reddy inaugurated the 2 days Conference of Amrit Samagam being held from 12th 13th April in New Delhi.
- **AIM** -to showcase all the events, festivals and Live Darshans across India to promote different regions of the country as popular tourist destinations worldwide.

About Portal

- The Utsav Portal website, a digital initiative launched by the Ministry of Tourism, aims to showcase all the events, festivals and live darshans across India to promote different regions of the country as popular tourist destinations worldwide.
- **The objective** is to showcase various elements, dates and details of the events and festivals of India on a global platform and increase tourism awareness, attractions, and opportunities by providing tourists with contextual digital experiences in the form of visually appealing photographs and stills from the events.
- Additionally, the **objective** is also to let the devotees and travelers experience and view the sights of some of the well-known religious divine shrines in India in the form of Live Darshan.
- The Utsav portal will also have the official social media links, official websites, brochures, contact details of the organizing committee and the details of how to reach the destination through the air, rail and roadways

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conveniently, thus establishing a better contact with the tourists and aiding the visitors in planning their trip to these destinations.

Discovery of a number of megalithic stone jars in Assam's Dima Hasao district

In News

The discovery of a number of megalithic stone jars in Assam's Dima Hasao district has brought to focus possible links between India's Northeast and Southeast Asia, dating back to the second millennium BC.

Details

- Three distinct shaped jars have been documented in the paper, 'An archaeological survey of the Assam stone jar sites.'
- In a site named Nuchubunglo, 546 jars were discovered making it the largest such site across the planet.
- The study that has been published in Asian Archaeology has called for more research so as to understand this cultural relationship between Laos and Assam and Indonesia.
- The jars that were discovered in Laos were dated and it showed that they were placed at the sites during the late second millennium BC.
- Inside the jars, human skeletal remains have been found, while remains were also found buried around the jars.
- The functions of the jars that were discovered in Indonesia remain unconfirmed, but researchers suggest that they were also used in a similar mortuary role as the ones found in Laos.

Scientists discover almost 35 million years old rare snake fossil

In News

Scientists have reported spotting of the fossil of a Madtsoiidae snake from the molasse deposits of Ladakh Himalaya for the first time indicating their prevalence in the subcontinent for much longer time than previously thought.

Madtsoiidae

- Madtsoiidae is an extinct group of medium-sized to gigantic snakes, firstly appeared during the late Cretaceous and mostly distributed in the Gondwanan landmasses, although, their Cenozoic record is extremely scarce.
- From the fossil record, the whole group disappeared in the mid-Paleogene across most Gondwanan continents except for Australia where it survived with its last known taxon Wonambi till late Pleistocene.
- The occurrence of Madtsoiidae from the Oligocene of Ladakh indicates their continuity at least to the end of the Paleogene (geologic period and system that spans 43 million years from the end of the Cretaceous Period 66 million years ago).

International Buddhist Confederation

In News

Prime Minister Shri Narendra Modi will participate in the "Shilanyas" ceremony for the construction of a unique centre for Buddhist Culture and Heritage within the Lumbini Monastic Zoneduring on the occasion of Vaishakha Buddha Purnima.

About IBC

- The International Buddhist Confederation (IBC), India- with its headquarters in New Delhi, was formed in 2013 as an international Buddhist umbrella body to serve as a common platform for Buddhists worldwide.
- It has the honour of being instituted under the patronage of the Supreme Buddhist religious hierarchy.
- **The aim** is to create a platform for various Buddhist organisations and traditions worldwide to preserve, propagate and promote shared Buddhist values and principles. The objective is also to find shared solutions to global problems.
- The construction of the unique 'India International Centre for Buddhist Culture & Heritage' with a universal appeal will be undertaken by the International Buddhist Confederation (IBC), India under the auspices of the Lumbini Development Trust with the financial support of the Ministry of Culture, Government of India.
- International Buddhist Confederation, is a grantee body under the Ministry of Culture.
- The Buddhist Centre will be the first 'Net Zero Emission' building in Nepal.

About Lord Buddha

- Buddha was born in Lumbiniin Nepal, he attained enlightenment in Bodhgaya in Bihar, preached his first sermon at Sarnath and attained Nirvana in Kushinagar, in Uttar Pradesh.
- Lumbini is the holy place where according to Buddhist tradition, Queen Mahamayadevi gave birth to Siddhartha Gautama at around 623 B.C.
- Lord Buddha, was born in the famous gardens of Lumbini, which soon became a place of pilgrimage.
- Lumbini is one of the holiest and most important places in Nepal as a result of which it was included in the list of World Heritage areas by UNESCO.

Kanheri Caves

In News

The Union Minister for Tourism, Culture and Development of the North Eastern Region (DoNER) Shri G Kishan Reddy, inaugurated the Kanheri Caves on the occasion of Buddha Purnima.

About Caves

- The name Kanheri is derived from 'Kanhagiri' in Prakrit and occurs in the Nasik inscription of the Satavahana ruler Vasisthiputra Pulumavi.
- The Kanheri caves comprise more than 110 different rock-cut monolithic excavations and is one of the largest single excavations in the country.
- These excavations were primarily undertaken during the Hinayana phase of Buddhism but also has several examples of the Mahayana stylistic architecture as well as few printings of the Vajrayana order.
- Kanheri caves are part of our ancient heritage as they provide evidence of evolution and our past.
- Kanheri was mentioned in the travelogues of foreign travellers.
- The earliest reference of Kanheri is ascribed to Fa-Hein who visited India during 399-411 CE and later by several other travellers.
- Kanheri flourished under the patronage of Satavahana, Traikutakas, Vakatakas and Silaharas and through donations made by the wealthy merchants of the region.

250th Birth Anniversary of Raja Ram Mohan Roy

In News

Under the aegis of Azadi Ka Amrit Mahotsav (AKAM), the Ministry of Culture is commemorating the 250th Birth Anniversary of Shri Raja Ram Mohan Roy from 22nd May 2022 to 22nd May 2023.

Raja Ram Mohan Roy

- Raja Ram Mohan Roy was born on 22 May 1772 in an orthodox Brahman family at Radhanagar in Bengal.
- Ram Mohan Roy's early education included the study of Persian and Arabic at Patna where he read the Quran, the works of Sufi mystic poets and the Arabic translation of the works of Plato and Aristotle. In Benaras, he studied Sanskrit and read Vedas and Upnishads.
- Returning to his village, at the age of sixteen, he wrote a rational critique of Hindu idol worship.
- From 1803 to 1814, he worked for East India Company as the personal diwan first of Woodforde and then of Digby.

Ideology

- Ram Mohan Roy was greatly influenced by western modern thought and stressed on rationalism and modern scientific approach.
- Ram Mohan Roy's immediate problematique was the religious and social degeneration of his native Bengal.
- He believed that religious orthodoxies have become causes of injury and detrimental to social life and sources of trouble and bewilderment to the people, instead of tending to the amelioration of the condition of society.
- Raja Ram Mohan Roy concluded that religious reform is both social reform and political modernisation.
- Ram Mohan believed that each sinner must make restitution for his sins and it is to be done through selfpurification and repentance and not through sacrifices and rituals.

Heritage By-Laws

In News

National Monuments Authority (NMA), has made a **record number of 101 Heritage By Laws** during the covid period (from 2019 onwards), covering a total of 126 centrally protected monuments.

National Monuments Authority

The National Monuments authority, was set up as per the provisions of the **Ancient Monuments and Archaeological Sites Remains** (AMASR) (Amendment Validation) Act 2010, entrusting it with the responsibility to consider granting permissions to applicants for conservation related activity in the centrally prohibited and regulated areas.

Need of HBLs

- The need for the HBLs consequently was induced by the increasing rate of urbanization, development, mounting population pressure, and concomitantly the aggravating pressure on land around the centrally protected monuments, which often obstructed and came in the way of the monument's 300 meters peripheral jurisdiction.
- This made it imperative, for regulating the property and individual growth around the monuments, along with the need to balance it with the cause of protecting and preserving the monuments itself. Such situations and the requirements of the time instrumentalized in the formation of the Heritage by-Laws (HBLs) by the NMA which regularly notifies on its website, inviting the local people's comments and suggestions with regard to its HBL content.

Achievements

The biggest joy and satisfaction was felt in the NMA when we finalised HBLs for the 14th century Bishnu temple in Manipur; Jagannath Temple in Puri; Chausath Yogini, Jabalpur; Jagatgrama Ashwamedha site and Lakha Mandal group of Shiva temples in Uttarakhand.

Qutub Minar not a place of worship

In News

Qutub Minar is not a place of worship, nor can it be revived as one under the laws of the land, the Archaeological Survey of India (ASI) told a Delhi court.

Archaeological Survey of India (ASI)

- It is under the Ministry of Culture.
- It was founded in 1861 by Alexander Cunningham- the first Director-General of ASI.
- Alexander Cunningham is also known as the "Father of Indian Archaeology".
- It is the premier organization for the archaeological research and protection of the cultural heritage of the nation.
- It carries out surveys of antiquarian remains, exploration and excavation of archaeological sites, conservation and maintenance of protected monuments.

Places of Worship (Special Provisions) Act, 1991:

- It seeks to maintain the "religious character" of places of worship as it was in 1947 except in the case of Ram Janmabhoomi-Babri Masjid dispute, which was already in court.
- Section 3 of the Act bans the conversion of a place of worship or even a section of it into a place of worship of a different religious denomination or of a different segment of the same religious denomination.
- Section 4(2) says that all suits, appeals or other proceedings regarding converting the character of a place of worship (that were pending on 15th August, 1947) will come to end when the Act commences and no fresh proceedings can be filed.
- The legal proceedings however can be initiated if the change of status took place after 15th August, 1947 (after enactment of the Act).
- It also imposes a positive obligation on the State to maintain the religious character of every place of worship as it existed at the time of Independence.

Qutub Minar

- It is a five-storeyed red sandstone tower (72.5 m high) built by Muslim conquerors in the thirteenth century to commemorate their final triumph over the Rajput rulers of Delhi (Qutub means victory), while also serving as a tower from where muezzins (criers) call for prayer at the Quwwatu'l-Islam mosque.
- A 7 m-high iron pillar stands in the courtyard of the mosque.
- Its surrounding contains Alai-Darwaza Gate, the masterpiece of Indo-Muslim art (built in 1311).
- The building process of Qutub Minar took about 75 years. Its construction was started by Qutub-ud-din Aibak (1206-1210) in 1193 and finished by Iltutmish (1211-1236).
- In 1368, it was repaired by the rulers of the day, Muhammad-bin-Tughluq (1325-51) and Firuz Shah Tughluq (1351-88).
- Qutub Minar and its monuments were declared a UNESCO World Heritage Site in 1993.

Banda Singh Bahadur

In News

Minister of State for Culture Shri Arjun Ram Meghwal in an event organised by National Monuments Authority(NMA) released 'Banda Singh Bahadur Martyrdom Monument Poster', ahead of his 306th Martyrdom Day on 9th June in New Delhi.

Banda Bahadur

- Banda Singh Bahadur (born Lachman Dev) (1670 1716), was a Sikh warrior and a commander of Khalsa army. At age 15 he left home to become a Hindu ascetic, and was given the name "Madho Das".
- He established a monastery at Nānded, on the bank of the river Godāvarī, where in 1708 he became a disciple of, Guru Gobind Singh, who gave him the new name of Banda Bahadur.
- He came to Khanda in Sonipat and assembled a fighting force and led the struggle against the Mughal Empire.
- His first major action was the sacking of the Mughal provincial capital, Samana, in November 1709. After establishing his authority and Khalsa rule in Punjab, he abolished the zamindari system, and granted property rights to the tillers of the land.

Achievements

- Baba Banda Singh Bahadur was a great warrior to defend India and defeat the Mughals.
- His original name was Baba Madhav Das and he was a Bairagi Sadhu.Baba Banda Singh Bahadur aimed at National awakening and Liberation of the country from the oppressive rule of the Mughals.
- Though Independence came to India much later, yet it was Baba Banda Singh Bahadur who first taught the Indians to fight, conquer and establish their independent rule.

The Nation Dharohar

In News

Union Minister for Finance and Corporate Affairs Smt. Nirmala Sitharaman dedicated to the nation '**Dharohar'**– the National Museum of Customs and GST in Panaji, Goa on Saturday, as part of the Azadi Ka Amrit Mahotsav Iconic Week celebration of the Ministry of Finance.

Dharohar

- Dharohar is housed in Panaji's famous Blue Building on the banks of the Mandovi River.
- The two storey building, which was earlier known as Alfandega, during the period of Portuguese rule in Goa, has been standing at this place for more than 400 years.
- Dharohar is one of its kind museums in the country that showcases not only the artefacts seized by Indian Customs across the country but also depicts basic customs procedures for the knowledge of general public.
- Notable among its displays are the handwritten manuscript of Ain-i-Akbari, replica of Amin pillars, seized metal and stone artefacts, ivory items and wildlife items.

Relics of Lord Buddha reach Mongolia for an 11-day exposition

In News

The four Holy Kapilvastu Relics of Lord Buddha reached Mongolia for an 11-day exposition along with the 25member delegation, led by Minister of Law and Justice, Shri Kiren Rijiju accompanying the sacred relics.

Buddha Relics

- The four relics come from among 22 Buddha relics, currently housed at Delhi's National Museum.
- Together, they are known as the 'Kapilvastu Relics' since they are from a site in Bihar believed to be the ancient city of Kapilvastu.
- The site was discovered in 1898.
- In 2015, the Holy Relics were placed under the 'AA' category of Antiquities and Art Treasures which should not be ordinarily taken out of the country for exhibition, considering their delicate nature.

The Kapilavastu relics

- The discovery of an inscribed casket in 1898 at the stupa site in Piprahwa (near UP's Siddharthnagar) helped identify the place with the ancient Kapilavastu.
- The inscription on the casket's lid which refers to the relics of Buddha and his community, the Sakya, reads: 'Sukiti bhatinam sa-bhaginikanam sa-puta-dalanam iyam salila nidhare Bhaddhasa bhagavate sakiyanam.'

New Dinosaur Species

In News

Researchers from Japan's Hokkaido University and the Southern Methodist University in the US have confirmed finding the fossil of a new dinosaur species that roamed around Asia from the early to the late Cretaceous period-approximately 145 million to 66 million years ago.

Paralitherizinosaurus japonicus

- Belonging to the group Therizinosaurs, the newly found fossilised claw has been associated with the species named *Paralitherizinosaurus japonicus*.
- The Therizinosaurs were first discovered in Asia as the fossil records in countries such as China and Mongolia are rich in their fossils. Fragments of their remains have also been reported from Japan.
- One of the most intriguing features of the dinosaur was its vicious claws which had knives for fingers.
- Therizinosaurs were a large group of dinosaurs that had hollow bones and three-toed limbs and were primarily herbivores.
- The fossil was first discovered in 2008 in the Osoushinai Formation, which is a fossil-rich geological feature in Hokkaido's Nakagawa.

UNMESHA

In News

The Ministry of Culture, Government of India, and Sahitya Akademi are organizing Unmesha, an International Literature Festival in Shimla from 16th to 18th June 2022 as part of Azadi ka Amrit Mahotsav celebrations.

About Unmesha

- Organised with the support of Department of Art and Culture, Government of Himachal Pradesh.
- The festival is being organised in the heritage buildings, the Gaiety Heritage Cultural Complex and the Town Hall, on the Ridge, Shimla.
- With over 425 writers, poets, translators, critics and distinguished personalities from various walks of life from 15 countries including India, representing over 60 languages and 64 events, **UNMESHA** International Literature Festival is the largest literature festival in the country.
- The event is free for public on all the days during the festival.
- There is display of about 1000 books related to the Indian freedom movement and the publications of five Indian publishers for sale.

Shree Kalika Mata temple

In News

Prime Minister Narendra Modi unveiled the redeveloped temple of Shree Kalika Mata at Pavagadh Hill in Panchmahal district of Gujarat.

About temple

- The sanctum sanctorum of this grand Mahakali temple has been made of gold.
- It is one of the oldest temples in the region and attracts pilgrims in large numbers.
- 'Dhwaja' had not been hoisted since five centuries as the top of the temple was broken. Now, the Pavagadh temple has been completely renovated.
- Redevelopment of the temple has been completed at a cost of 125 crore rupees.

Baba Banda Singh Bahadur

In News

National Monuments Authority is observing the great warrior Baba Banda Singh Bahadur's martyrdom.

Baba Banda Singh Bahadur

- Baba Banda Singh Bahadur was a great Sikh warrior and a commander of Khalsa army who defeated the Mughals and freed a large part of North India.
- He established the Khalsa rule in Punjab.
- Banda Singh Bahadur abolished the Zamindari system, and granted property rights to the tillers of the land.
- He was a Noble ruler who introduced the Nanak Shahi coins.
- He was captured by Mughal ruler Farrukhsiyar and brought to Delhi and put to death in a most inhuman manner.
- He was given the name "Madho Das".
- He established a monastery at Nānded, on the bank of the river Godāvarī, where in 1708 he became a disciple of, Guru Gobind Singh, who gave him the new name of Banda Bahadur.

Pradhanmantri Sangrahalaya

In News

More than 50 thousand visitors visited the Pradhanmantri Sangrahalaya in 2 months since inauguration from across the India and the World.

About Pradhanmantri Sangrahalaya

- The Sangrahalaya is a tribute to every Prime Ministers of India, and a narrative record of how each one has contributed to the development of our nation over the last 75 years.
- Visitors are acquainted with India's unique journey as a parliamentary democracy through the lives of its Prime Ministers, who came from every class and tier of society, for the gates of democracy are open to all.
- The Sangrahalaya tells the story of India after Independence in a comprehensive, objective, and interesting manner with technology-based interfaces like Holograms, Virtual Reality, Augmented Reality, interactive kiosks, computerized kinetic sculptures, smart phone applications, interactive screens, experiential installations etc.

Bonalu festival

In News

- The southern state of Telanga is presently celebrating the famous Bonalu festival.
- The twin cities of Hyderabad and Secunderabad go through absolute madness during July-August as the annual festival of Bonalu is celebrated with intense fun, frolic and fervour.

About Festival

- The festival is dedicated to Goddess Mahakali, thanking her for fulfilling the wishes of her devotees.
- Bonalu is a popular festival celebrated in Hyderabad and Secunderabad. Apart from Yellamma, during the Bonalu festival, the different forms of Mahakali are worshipped, including Mysamma, Dokkalamma, Pedamma, Pochamma, Yellamma, Poleramma and Ankalamma.
- During this, the devotees offer rice cooked with milk and jaggery in an earthen or brass pot, which is decorated with neem leaves, turmeric and vermilion. Women carry these pots on their heads to temples.

National Culture Fund

In News

National Culture Fund has completed 52 projects with various donors since its inception.

About NCF

- Government of India has set up National Culture Fund (NCF) as a Trust on 28th November, 1996 under the Charitable Endowment Act, 1890.
- NCF is managed by a (Governing) Council and an Executive Committee.
- The Council is chaired by the Union Minister of Culture and has a strength of 21 including 15 non-official members representing various fields including corporate sector, private foundations and not-for-profit voluntary organizations.
- **AIM** to establish and nurture partnerships in the field of Culture and Heritage with private and public sectors, government, non-government agencies, private institutions and foundations and mobilize resources for the restoration, conservation, protection and development of India's rich, natural, tangible and intangible heritage.

Objectives

- The major objectives of NCF is to administer and apply the Fund for conservation, maintenance, promotion, protection, preservation and up gradation of monuments protected or otherwise;
- For the training and development of a cadre of specialists and cultural administrators, for innovations and experiments in arts and for documentation of cultural expressions and forms that have lost their relevance in contemporary scenario and are either fading out or facing extinction.

Tiranga Utsav

In News

The Ministry of Culture is organizing "**Tiranga Utsav**" -an evening filled with cultural and musical performances to celebrate the contributions of Pingali Venkayya to the nation on the occasion of his 146th Birth Anniversary in New Delhi.

Tiranga Utsav

- The event will include the release of a commemorative Postal Stamp in honor of Pingali Venkayya for his invaluable contribution to the country followed by the felicitation of his family.
- The Tiranga Utsav will also witness the grand launch of the "Har Ghar Tiranga" anthem and video.
- The cultural evening shall mark a historic day in celebration of India's 75th year of independence as Azadi ka Amrit Mahotsav and will be a great tribute to one of the nation's most important gems Pingali Venkayya.

Pingali Venkayya

- Pingali Venkayya, a freedom fighter and the designer of India's National Flag was a follower of Gandhian principles, and it was upon the request of Mahatma Gandhi that he designed the Indian National Flag with saffron, white and green colors with chakra in the middle.
- Between 1918 and 1921, Venkayya raised the issue of having an own flag in every session of the Congress. Back then, he was working as a lecturer in the Andhra National College in Machilipatnam.
- He met the Mahatma once again in Vijayawada and showed him his publication with the various designs of the flag. Acknowledging the need for a national flag, Gandhi then asked Venkayya to design a fresh one at the national congress meeting in 1921.
- Initially, Venkayya came up with saffron and green colours, but it later evolved with a spinning wheel at the centre and a third colour-white. (LALA HANS RAJ SONDHI SUGGESTED ADDING A SPINNING WHEEL SHOWING THE INDEPENDENT INDIANS WHO CAN SPIN THEIR OWN CLOTHING FROM LOCAL FIBRES.)
- The flag was officially adopted by the Indian National Congress in 1931.

Global Engagement Scheme

In News

The Ministry of Culture operates Global Engagement Scheme under which Festivals of India are organized in other countries showcasing folk art and other cultural events as exhibitions, dance, music, theatre, food fest, literary fest, film fest, yoga etc.

About The Scheme

- The Ministry of Culture aims at disseminating Indian Folk Arts and Culture abroad through signing of Cultural Agreements & Cultural Exchange Programme and their implementation by concerned agencies with mutual discussions through diplomatic channels.
- Under this scheme, Ministry of Culture also gives Grant-in-aid to Indo- Foreign Friendship Cultural Societies for organizing programmes and activities including folk art and other cultural activities for their promotion abroad.
- The Government of India has set up seven Zonal Cultural Centers (ZCCs) with headquarters at Patiala, Nagpur, Udaipur, Prayagraj, Kolkata, Dimapur and Thanjavur to protect, preserve and promote various forms of folk art and culture throughout the country.
- The folk artists from all over India are engaged to perform in the festivals and Programmes organized by these ZCCs regularly in all States/Union Territories of India. Besides, the folk artists are also sent abroad to perform in Festivals of India.
- Incentives like Dearness allowance, honorarium, board & lodging, local & international travel are provided to these artists by the respective ZCCs and Ministry of Culture.

Mistaken identity

In News

- The Thalaivetti Muniyappan temple near Salem, where a local deity is worshipped as per Hindu rituals, will be treated as a Buddhist temple hereafter, thanks to a recent Madras High Court order.
- The court order dated July 19 was based on a petition filed by S Sathia Chandran in 2011, which prayed the court to conduct an inspection of the Thalaivetti Muniyappan Temple at Kottai Road, Periyeri Village near Salem, to ascertain the "identity and antiquity" and take appropriate action to restore the status to a Buddha Trust.

Features of Sculpture

- The inspection report said the sculpture was made of hard stone.
- The figure was in a seated position known as ardha-padmasana on a lotus pedestal.
- The hands are posed in 'dhyana mudra'.
- The figure is Sagati.
- The head shows lakshanas of the Buddha such as curly hair, ushnisha and elongated earlobe.
- Urna is not visible on the forehead.
- The head was severed from the torso which were glued together with cement and lime mixture a few years ago.
- However, due to human error or some other reason, the head was not positioned properly to the torso and consequently, the head slightly twisted towards the left side of the body.
- Height of the image is 108 cm in a cross legged (ardha-padmasana) posture.
- The reverse side of the sculpture was flat without any artistic work.

SEED Scheme

In News

Recently, the Ministry of Social Justice and Empowerment has said that only 402 online applications are received to avail benefits under SEED (Scheme for Economic Empowerment of Denotified, Nomadic and Semi-Nomadic Tribes).

About SEED

- The Scheme for Economic Empowerment of Denotified/Nomadic/SemiNomadic (SEED) communities was launched in February 2022 by the Ministry of Social Justice & Empowerment.
- It aims to provide free competitive exam coaching to these students, to provide health insurance to families, to uplift clusters of these communities through livelihood initiatives, and to provide financial assistance for housing.
- It is being implemented through an online portal (from 2021 to 2026) and would issue a unique ID to each applicant. But delay in the categorization of 1262 tribes is delaying the implementation of the scheme.

Features of the scheme

- Free coaching to students from these communities for Civil Services, entry to professional courses like medicine, engineering, MBA, etc.
- Health Insurance through PMJAY of National Health Authority.
- Livelihoods to support income generation
- Housing (through PMAY/IAY).
- It ensures expenditure of Rs.200 crore to be spent over five years beginning 2021-22.
- The DWBDNCs (Development and Welfare Board for De-notified, Nomadic and Semi-Nomadic Communities) has been tasked with the implementation of this scheme.
- An online portal has been developed by the department which will ensure seamless registration and will also act as a repository of the data on these communities.

De-notified Tribes

- These are communities that are the most vulnerable and deprived.
- DNTs are communities that were 'notified' as being 'born criminals' during the British regime under a series of laws starting with the Criminal Tribes Act of 1871.
- These Acts were repealed by the Independent Indian Government in I952, and these communities were "De-Notified".

- A few of these communities which were listed as de-notified were also nomadic.
- Nomadic and semi-nomadic communities are defined as those who move from one place to another rather than living in one place all the time.
- Historically, Nomadic Tribes and De-notified Tribes never had access to private land or home ownership.
- While most DNTs are spread across the Scheduled Castes (SC), Scheduled Tribes (ST) and Other Backward Classes (OBC) categories, some DNTs are not covered in any of the SC, ST or OBC categories.

Kartavya Path

In News

- Prime Minister Shri Narendra Modi will inaugurate the 'Kartavya Path' on 8th September.
- It symbolises a shift from erstwhile Rajpath being an icon of power to Kartavya Path being an example of public ownership and empowerment.
- Prime Minister will also unveil the statue of Netaji Subhas Chandra Bose at India Gate.

Reason behind this move

- Over the years, Rajpath and adjoining areas of the Central Vista Avenue had been witnessing pressure of increasing traffic of visitors, putting stress on its infrastructure.
- It lacked basic amenities like public toilets, drinking water, street furniture and adequate parking space.
- Further, there was inadequate signage, poor maintenance of water features and haphazard parking.
- Also, a need was felt to organise the Republic Day parade and other National events in a less disruptive manner with minimal restrictions on public movement.
- The redevelopment has been done bearing these concerns in mind while also ensuring the integrity and continuity of architectural character.

Kartvaya Path

- Kartvaya Path will exhibit beautified landscapes, lawns with walkways, added green spaces, refurbished canals, new amenity blocks, improved signages and vending kiosks.
- Further, new pedestrian underpasses, improved parking spaces, new exhibition panels and upgraded night lighting are some other features that will enhance the public experience.
- It also includes a number of sustainability features like solid waste management, stormwater management, recycling of used water, rainwater harvesting, water conservation and energy efficient lighting systems, among others.

Union Cabinet gives nod to inclusion of 4 tribes in ST list, skips Gorkhas

In News

The Union Cabinet under the chairmanship of Prime Minister Narendra Modi has approved the addition of four tribes to the list of Scheduled Tribes.

New Tribes

The Hatti tribe in the Trans-Giri area of Sirmour district in Himachal Pradesh, the Narikoravan and Kurivikkaran hill tribes of Tamil Nadu and the Binjhia in Chhattisgarh, who were listed as ST in Jharkhand and Odisha but not in Chhattisgarh, were the communities newly added to the list.

Hattis community

- The Hattis are a close-knit community that got their name from their tradition of selling homegrown vegetables, crops, meat, and wool, etc. at small markets called 'haat' in towns.
- Hatti men traditionally don a distinctive white headgear on ceremonial occasions.
- The Hatti homeland straddles the Himachal-Uttarakhand border in the basin of the Giri and Tons rivers, both tributaries of the Yamuna.
- The Tons marks the border between the two states.
- The Hattis who lives in the trans-Giri area in Himachal Pradesh and Jaunsar Bawar in Uttarakhand were once part of the royal estate of Sirmaur until Jaunsar Bawar's separation in 1814.
- There are two Hatti clans, in Trans-Giri and Jaunsar Bawar, have similar traditions, and inter-marriages are common.
- However, a fairly rigid caste system operates in the community the Bhat and Khash are upper castes, and the Badhois are below them, and inter-caste marriages have traditionally been discouraged.
- The Hattis are governed by a traditional council called 'khumbli' which, like the 'khaps' of Haryana, decides community matters.

ST in India

- As per Census-1931, Schedule tribes are termed as "backward tribes" living in the "Excluded" and "Partially Excluded" areas. The Government of India Act of 1935 called for the first time for representatives of "backward tribes" in provincial assemblies.
- The Constitution does not define the criteria for recognition of Scheduled Tribes and hence the definition contained in 1931 Census was used in the initial years after independence.
- However, **Article 366(25)** of the Constitution only provides process to define Scheduled Tribes: "Scheduled Tribes means such tribes or tribal communities or parts of or groups within such tribes or tribal communities as are deemed under Article 342 to be Scheduled Tribes for the purposes of this Constitution."
- **342(1)**: The President may with respect to any State or Union Territory, and where it is a State, after consultation with the Governor, by a public notification, specify the tribes or tribal communities or part of or groups within tribes or tribal communities as Scheduled Tribe in relation to that State or Union Territory.
- There are over 705 tribes which have been notified. The largest number of tribal communities are found in Odisha.

Varanasi nominated as the first-ever SCO Tourism

In News

The city of Varanasi has been nominated as the first-ever SCO Tourism and Cultural Capital during the period 2022-2023 at the 22nd Meeting of Shanghai Cooperation Organization (SCO).

Significance

- The nomination of Varanasi as the first ever SCO Tourism and Cultural Capital will promote tourism, cultural and humanitarian exchanges between India and the SCO member Countries.
- It also underlines India's ancient civilizational links with Member States of SCO, especially the Central Asian Republics.
- Under the framework of this major cultural outreach program, a number of events will be hosted in Varanasi during 2022-23, for which guests will be invited to participate from SCO Member States.
- These events are expected to attract Indologists, scholars, authors, musicians and artists, photo journalists, travel bloggers and other invited guests.

Odisha publishes India's first encyclopedia on tribal communities

In News

Odisha recently became the first state in the country to start an encyclopedia on tribal communities to document their age-old and unique traditions.

Encylopedia on tribal communities

- With the release of the five volumes of "Encyclopedia of Tribes in Odisha", Odisha became the first state in India to start an encyclopaedia on tribal communities and document their historic and unique traditions.
- The encyclopaedia was published by **Scheduled Castes and Scheduled Tribes Research and Training Institute** (SCSTRTI) and Odisha State Tribal Museum.
- It has 418 research articles focusing on tribal communities, including 13 particularly vulnerable groups.
- This 3,800-page scholarly book came as a result of research contributions from numerous scholars and eminent anthropologists.
- The purpose of this book is to preserve the rapidly changing cultural identity of tribal communities in the state.
- It brings together both published and unpublished data regarding the tribes' ethnography and development over the years, covering their past as well as the present.

About SCSTRTI

- SCSTRTI is the oldest tribal research institute in India. It was established as the Tribal Research Bureau (TRB) in 1952 and was later renamed as Scheduled Castes and Scheduled Tribes Research and Training Institute (SCSTRTI) in 1994.
- It has been consistently publishing its 61-year-old research journal titled "ADIVASI".
- The main purpose of SCSTRTI is to conduct empirical research on various aspects concerning the tribes and evaluate various developmental programmes targeting tribal communities.

Project Mausam

In News

- The ASI organized a two-day National Conference at India Habitat Centre, New Delhi.
- Christened "Jaladhipurayatra: Exploring Cross- Cultural Linkages along the Indian Ocean Rim Countries", the Conference incorporated manifold aspects of maritime exchanges and interactions.

Project Mausam

- Project 'Mausam' is a Ministry of Culture project to be implemented by Indira Gandhi National Centre for the Arts (IGNCA), New Delhi as the nodal coordinating agency with support of Archeological Survey of India and National Museum as associate bodies.
- Project 'Mausam' aims to understand how the knowledge and manipulation of the monsoon winds has shaped interactions across the Indian Ocean and led to the spread of shared knowledge systems, traditions, technologies and ideas along maritime routes. These exchanges were facilitated by different coastal centres and their surrounding environs.
- Project Mausam functions at two levels:
- At the macro level, it aims to re-connect and re-establish communications between countries of the Indian Ocean world, which would lead to an enhanced understanding of cultural values and concerns.
- At the micro level, the focus is on understanding national cultures in their regional maritime milieu.

Mother Tongue Survey

In News

The Indian Government recently completed the Mother Tongue Survey of India (MTSI) project.

Mother Tongue Survey Project

- The Mother Tongue Survey of India (MTSI) project is implemented by the Central Government to conduct surveys of mother tongues that are returned consistently across 2 or more Census decades. It also records the linguistic features of select languages.
- According to the Home Ministry's annual report for 2021-22, the MTSI project was successfully completed, with field videography of India's 576 languages. The report also stated that, to preserve and analyse the original flavour of each indigenous mother tongue, The NIC and the National Film Development Corporation (NFDC) is currently documenting and preserving the linguistic data of the surveyed mother tongues in videoaudio files. The data will be stored in the web-archive that will be set up at the National Informatics Centre (NIC).

Mother Tongue in India

- According to the 2011 linguistic census data released in 2018, more than 19,500 languages or dialects are spoken as mother tongues in India. These were grouped into 121 mother tongues after the census data underwent linguistic scrutiny, editing and rationalisation. "Mother tongue" is a designation provided by the survey's respondent. It need not be identical to the actual linguistic medium.
- 43.6 per cent of the population (52.8 crore people) declared Hindi to be their mother tongue, making the most widely spoken mother tongue in India. The second highest spoken mother tongue is Bengali. 9.7 crore people or 8 per cent of the population speak the language.

Assam CM releases theme song of 400th birth anniversary celebration of Lachit Barphukan

In News

Assam Chief Minister Himanta Biswa Sarma released the theme song of the 400th birth anniversary celebration of the legendary general of Assam Lachit Barphukan.

Lachit Barphukan

- Lachit Borphukan, born on November 24, 1622, was a commander and Bophukan (councillor) in the Ahom Kingdom, which reigned present-day Assam for over 600 years while successfully resisting the Mughal Empire.
- Borphukan is known for his leadership in the 1671 Battle of Saraighat, which prevented the Mughal forces from invading the Ahom Kingdom. He passed away a year later because of illness.

About Celebrations

- On November 18, a march-past parade will be conducted by Assam Police, Indian Army, Paramilitary Forces, Indian Navy and Air Force personnel and National Cadet Corps in each district.
- The government is also taking efforts to beautify the Lachit Barphukan's maidan in Jorhat and convert it into a tourist attraction.
- The theme song for the program, which was released recently, was composed by the famous singer Zubin Garg. This theme song pays tribute to the bravery and sacrifice of Lachit Barphukan and the importance of the celebration of Lachit Divas.
- As part of the celebrations, the Assam Government will take over 50 bighas of land from the local people on November 20. It will also provide Rs.12 crore as a mark of gratitude to people who have donated the land.

Kashi Tamil Sangamam

In News

Prime Minister of India inaugurated the month-long Kashi Tamil Sangamam in Varanasi, Uttar Pradesh.

Kashi Tamil Sangamam

- Kashi Tamil Sangamam celebrates many aspects of the historical and civilisational connection between India's North and South.
- The broader objective is to bring the two knowledge and cultural traditions (of the North and South) closer, create an understanding of our shared heritage and deepen the people-to-people bond between the regions.
- It is being organized by the Ministry of Education in collaboration with other ministries like Culture, Textiles, Railways, Tourism, Food Processing, Information & Broadcasting etc. and the Government of Uttar Pradesh.
- The endeavour is in sync with National Education Policy (NEP), 2020's emphasis on integrating the wealth of Indian Knowledge Systems with modern systems of knowledge.
- IIT Madras and Banaras Hindu University (BHU) are the two implementing agencies for the programme.

Significance

- King Parakrama Pandya, who ruled over the region around Madurai in the 15th century, wanted to build a temple to Lord Shiva, and he travelled to Kashi (Uttar Pradesh) to bring back a lingam.
- While returning, he stopped to rest under a tree but when he tried to continue his journey, the cow carrying the lingam refused to move.
- Parakrama Pandya understood this to be the Lord's wish, and installed the lingam there, a place that came to be known as Sivakasi, Tamil Nadu.
- For devotees who could not visit Kashi, the Pandyas had built the Kasi Viswanathar Temple in what is today Tenkasi in southwestern Tamil Nadu, close to the state's border with Kerala.

Biggest Manipur festival Sangai commences in the state

In News

Union Minister for Tourism G Kishan Reddy inaugurated the biggest tourism festival of Manipur -Sangai festival on 21 November 2022 at Moirang Khunou in Bishnupur district of Manipur.

Manipur Sangai Festival

- Manipur Sangai Festival is a cultural extravaganza organized every year to showcase the uniqueness of Manipur.
- It also celebrates Manipur's state animal, Sangai Deer, which is found only in floating Keibul Lamjao National Park in Loktak Lake.
- The 10-day festival promotes the northeastern state's tourism sector.
- It showcases the culture and traditions of the state. It was earlier known as the Manipur Tourism Festival.
- In 2010, it was renamed as Sangai Festival.
- The main objective of this annual festival is to promote Manipur as a world class tourism destination.
- This festival showcases the tourism potential of state in the areas of arts and culture, handloom, handicraft, indigenous sports, cuisine, music, adventure sports etc.
- The theme for the event is "Festival of Oneness". It promotes a sense of belonging and creates pride in ownership of land among people.

Other major festivals of Manipur

- Gang-Ngai- Celebrated for five days in the month of December/January, Gang-Ngai is an important festival of the Kabui Nagas.
- Lui-Ngai-Ni- It is a collective festival of the Nagas observed on the 15th day of February every year. This is a seed sowing festival after which tribes belonging to the Naga group begin their cultivation.
- Yaoshang- Celebrated for five days commencing from the full moon day of Phalguna (February/March), Yaoshang is the premier festival of Manipur. The **Thabal Chongba** – a kind of Manipuri fold dance, where boys and girls hold hands together and sing and dance in a circle, is particularly associated with this festival. Yaoshang to Manipur is what Durga Puja is to Bengal, Diwali in north India and Bihu to Assam.
- Cheiraoba: The Manipuri New Year. It is celebrated during the month of April. Villagers climb the nearest hilltops in belief that it will enable them to rise to greater heights in their worldly life.

"Swar Dharohar Festival"

In News

Ministry of Culture, Government of India in collaboration with "Swar Dharohar Foundation," inaugurated three day "Swar Dharohar Festival" under Kalanjali.

About the festival

- It is a Music, Art & Literature Festival to showcase the iconic art and culture of India and the rich literary Art & Heritage of Indian States.
- In this program, the upcoming local Artists will perform with Legend Artist on the same platform to showcase their talents.
- The National as well as Local Poets will exhibit their artistry through Kavi Sammelan.

Dhanu Yatra

In News

The 'Dhanu Yatra' festival, considered to be the world's largest open-air theatre, began recently in the Western Odisha town of Bargarh.

Dhanu Yatra

- The plays in the festival start with the dethroning of Emperor Ugrasen of Mathura by angry Kansa over the marriage of his sister Devaki with Vasudev.
- The festival will conclude with the death of demon king Kansa and the restoration of the throne to Ugrasen
- With the commencement of the festival, Bargarh becomes King Kansa's Mathura, and Amapali, located about eight km away, becomes Gopapura, where Lord Krishna is said to have spent his childhood.
- The Jeera River which flows between the two places becomes the Yamuna River.
- The 'Dhanu Yatra', which marks the victory of good over evil, came into existence in Bargarh in 1947-48 as part of the celebration of the country's Independence and is held annually.
- The rule of Kansa, his death and the exploits of Lord Krishna are enacted in 14 places across the area during the open-air festival.
- During his rule in Bargarh, the demon king Kansa penalises offenders on the streets and also enters the government offices and pulls up in disciplined officials.
- He also listens to the grievances of people at his 'durbar' and passes orders even to government officials.

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Polity & Governance

Padhe Bharat

In News

A 100-day reading campaign has been launched by the Union Education Minister with an objective to promote the practice of reading among children.

Significance of the Campaign:

- The Padhe Bharat campaign will be a crucial step to improve the learning levels of students.
- This will develop creativity, critical thinking, vocabulary and the ability to express both verbally and in writing.
- It will be a 14 weeks programme with one activity per week per group and has been designed with an intention to build a lifelong association of students with the joy of reading.
- The campaign also forms conformity with the vision and goals of the foundational Literacy and Numeracy mission.

NEAT 3.0

In News

Union Education Minister launches NEAT 3.0.

About NEAT 3.0:

- NEAT 3.0 is a single platform to provide the best-developed ed-tech solutions and courses to students of the country.
- AICTE is the facilitator in the process.
- NEAT has 58 Education Technology Companies with 100 products that help to develop employable skills, capacity building, and bridge learning gaps.
- More than 12 lakh socially and economically disadvantaged students have received free ed-tech course coupons worth over ₹253 crores under NEAT 3.0.
- NEAT is expected to be a game-changer in bridging the digital divide in education.
- The minister also launched AICTE prescribed technical books in regional languages.

National Commission for Safai Karamcharis

In News

Cabinet approved the extension of tenure of the National Commission for Safai Karamcharis (NCSK) for three years.

Background

- The National Commission for Safai Karamcharis recommends the government regarding specific programmes for welfare of the Safai Karamcharis.
- In accordance with the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013, the NCSK has been tasked to monitor the implementation of the act.
- Despite the initiatives taken by the government to avert the socio-economic deprivation of the scavengers, hazardous cleaning of sewer and septic tanks continues to be a major issue.

About NCSK:

• The commission was established in 1993 and was valid till 1997 followed by the further extension of the tenure of the act.

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- The commission was later extended as a non-statutory body under the Ministry of Social Justice and Empowerment.
- The tenure of the commission is extended from time to time through government resolutions.

New CCS (Pension) Rules

In News

A webinar was conducted to create awareness on the newly notified Central Civil Services (Pension) Rules and generation of Digital Life Certificates using Face Authentication Technology.

The CCS (Pension) Rules 2021:

- The government has amended the pension rules for Central Civil Services 1972. This was carried out by the Department of Pension & Pensioners' Welfare.
- The CCS (Pension) rules apply to the civil servants who have been appointed before 1/1/2004.
- The civil servants appointed on or after 1/1/2004 are covered under the National Pension Scheme.
- These rules provided new restrictions for the officials of intelligence and security organisations.
- Rule 8(3) (a): Officials who retired from certain intelligence and security establishments will not be allowed to write anything about their organisation without permission. These organisations refer to those that are included in the second schedule of the RTI Act of 2005.
- It covers 26 organisations such as the Intelligence Bureau, R&AW, Directorate of Revenue Intelligence, CBI (Central Bureau of Investigation), NCB (Narcotics Control Bureau), BSF (Border Security Force), CRPF (Central Reserve Police Force), ITBP (Indo-Tibetan Border Police) and CISF (Central Industrial Security Force).
- **Rule 9:** Restricts a government servant from making any statements of fact or opinion in writing or in a telecast that hold criticism against the existing policies of the government. Any misconduct might result in departmental proceedings against the official only until four years of the date of committing that misconduct.
- There is no rule to stop the government servants from joining politics after their retirement.

Global Center of Excellence in Affordable and Clean Energy (GCoE-ACE)

In News

A virtual function was held to mark the launch of the Global Center of Excellence in Affordable and Clean Energy (GCoE-ACE) in Karnataka.

Global Center of Excellence in Affordable and Clean Energy (GCoE-ACE)

- The GCoE-ACE aims to establish equipment for skill development, fabrication, and R&D.
- The centre is supported by the Corporate Social Responsibility (CSR) donation from HHSIF.

HSIF-

- The Honeywell Hometown Solutions India Foundation (HHSIF) is a not-for-profit organization that deploys efforts in several critical areas.
- Aim: To encourage innovation to support the solutions to the grass-root problem statements in the affordable and clean-energy domain.

ODF plus village

In News

South Maubuang, a village in Mizoram, has been declared as the first ODF (Open Defecation Free) plus village in the state having fulfilled all the criteria as per Swachh Bharat Abhiyan (SBM-G) Phase II guidelines.

ODF Plus Village

Village with sustained ODF behaviours along with access to solid and liquid waste management is recognised as an ODF plus village.

Key indicators assessed:

- ODF sustainability
- Biodegradable Waste Management
- Liquid Waste Management
- Plastic Waste Management
- Faecal Sludge Management

National Single Window System (NSWS)

In News

A review meeting of the National single window system was held with a prime focus on the simplicity of operations and transparency.

About NSWS

- The Ministry of Commerce and Industry has launched the national single window system for expanding the scope of Ease of Doing Business.
- The Department for Promotion of Industry and Internal Trade in association with Invest India initiated this portal.
- It is aimed at making investments flexible and easy.
- This single window system acts as a portal that allows businesses to apply for clearances, track the process and address their queries.
- It ensures a one stop solution for states and central governments in carrying out businesses bringing more transparency and accountability.
- It offers a Know Your Approvals service which gives information about the required approvals, criteria and a common registration form. This speeds up the process of documentation in carrying out business.

National Air Sports Draft Policy

In News

The Ministry of Civil Aviation releases a draft of 'National Air Sports Policy', with a vision to make India one of the top sports nations by 2030.

Features of the Draft Policy

- The draft covers sports like aerobatics, aeromodelling, amateur-built and experimental aircraft, ballooning, drones, gliding, hang gliding and paragliding; microlighting and paramotoring; skydiving and vintage aircraft.
- An Air Sports Federation of India (ASFI) will be established as the apex governing body.
- ASFI shall represent India at Fédération Aéronautique Internationale (FAI) and other global platforms related to air sports.
- Domestic design, development and manufacturing of air sports equipment will be promoted in line with the Atmanirbhar Bharat Abhiyan.
- NASP 2022 places a strong focus on ensuring international best practices in safety.
- All persons and entities providing air sports services shall be required to register as members of the respective air sports associations.
- An airspace map of India has been published on DGCA's DigitalSky Platform. The map segregates the entire airspace of India into the red zone, yellow zone and green zone.
- Schools, colleges and universities will be encouraged to have air sports included in their curriculum.

- Long-term funding for the development of air sports in India shall come from corporate investors, sponsors, membership fees, events and media rights.
- To make air sports affordable to the common public, the Government will request the GST Council to consider rationalising the GST rate on-air sports equipment to 5% or less.

National Commission for Women

In News

The Prime Minister will address the 30th National Commission for Women (NCW) Foundation Day programme on 31st January, 2022.

National Commission for Women

- The National Commission for Women (NCW) was set up as a statutory body in 1992 under the National Commission for Women Act, 1990.
- Objectives:
 - o Review the Constitutional and Legal safeguards for women
 - Recommend remedial legislative measures
 - Facilitate redressal of grievances
 - o Advise the Government on all policy matters affecting women
- Key Functions:
 - Investigate and examine matters relating to the safeguards provided for women under the Constitution and other laws.
 - Make recommendations for the effective implementation of safeguards for improving the conditions of women.
 - Review the existing provisions of the Constitution and other laws affecting women and recommend amendments
 - Take up cases of violation of the provisions of the Constitution and of other laws relating to women with the appropriate authorities.

GIS-based automated water connection

In News

Water connection has been granted under an automated water supply system that is GIS (Geographical Information System) enabled for the residents of cantonments.

About GIS:

- The GIS-based 'Automatic Water Supply System' has been developed by Bhaskaracharya Institute for Space Applications and Geoinformatics under the guidance of the Defense Secretary and Director General of Defense Estates.
- It is completely an automated system that provides the citizens with the nearest water pipeline.
- Under the GIS, no manual intervention is required for the clearance and sanction of the water connection.

About E-Chhawani portal:

- It is a unified portal for 62 cantonment boards which will enable the citizens to have ready access to information regarding their cantonment board.
- This portal also helps the citizens to avail the civic services delivered by cantonment boards.
- It is planning to provide an online property tax payment facility. Online building plan facility, community hall booking, school admission facility along with fee payment in the coming future.

Services E-Health Assistance And Teleconsultation (Sehat)

In News

As part of the Government's commitment to Digital India and e-Governance, the Raksha Mantri Shri Rajnath Singh launched SeHAT.

About SeHAT

- SeHAT is the tri-services teleconsultation service of the MoD designed for all entitled personnel and their families.
- SeHAT stay home OPD is a patient-to-doctor system where the patient can consult a doctor remotely through the internet using his Smartphone, laptop, Desktop or Tablet.
- It aims to provide quality healthcare services to patients from the comfort of their homes.

Henley Passport Index

In News

India has been ranked 83rd in the most powerful passport report 'Henley Passport Index 2022'. India's passport power has improved this quarter compared to 2021 climbing seven places from 90th rank last year.

About the Index:

- The Henley Passport Index is the original ranking of all the world's passports according to the number of destinations their holders can access without a prior visa.
- Originally created by Dr. Christian H. Kaelin (chairman of Henley & Partners), the ranking is based on exclusive data from the International Air Transport Association (IATA), which maintains the world's largest and most accurate database of travel information.
- It was launched in 2006 and includes 199 different passports.

Global Rankings:

- Japan and Singapore top the index
- Germany and South Korea held onto the joint second spot on the latest ranking, while Finland, Italy, Luxembourg, and Spain shared third place.
- Afghanistan and Iraq continue to be in the 'worst passports to hold' category.

District level Governance Index

In News

Jammu & Kashmir will soon become the first Union Territory in the country to have a district level Good Governance Index, modeled on the Good Governance Index 2021 launched on 25 December 2021.

District Good Governance Index (DGGI)

DGGI will enable each of the 20 districts of Jammu & Kashmir to rise to the level of some of the best-administered districts of the country, with

- Time-bound disposal of office files and other matters
- Increased transparency
- Increased accountability
- Increased citizen participation

The DGGI Framework has **58 Indicators** drawn from different aspects of development and district administration distributed in **10 sectors** that include,

• Agriculture & allied sector

- Commerce & Industry
- Human Resource Development
- Public Health
- Public Infrastructure & Utilities
- Economic Governance
- Welfare & Development
- Public Safety
- Judiciary
- Citizen-Centric Governance

About GGI

The Good Governance Day is observed on the birth anniversary of former Prime Minister Shri Atal Bihari Vajpayee (25th December). It was observed for the first time in 2014.

Rashtriya Yuva Sashaktikaran Karyakram (RYSK)

In News

The government has decided to extend the RYSK scheme to develop the personality and leadership qualities of the youth.

About RYSK

- The Rashtriya Yuva Sashaktikaran Karyakram scheme is a central sector scheme of the Ministry of Youth Affairs and Sports.
- The beneficiaries of the scheme include youth in the age group of 15-29.
- The age group has been considered in alignment with the definition of 'youth' as per the National Youth Policy of 2014.
- The programmes of the RYSK scheme is implemented through seven sub-schemes:
 - Nehru Yuva Kendra Sangathan (NYKS)
 - National Youth Corps
 - o National Programme for Youth and Adolescent Development
 - International Cooperation
 - Youth Hostels
 - Assistance to Scouting and Guiding Organisations
 - National Young Leaders Programme

Objectives

- The major aim of the scheme is to motivate the youth to strive for excellence in their respective fields and engage them in the developmental process.
- It seeks to harness the immense youth energy for nation-building.
- Besides, it also aims at enhancing National Integration, Adventure, Youth Leadership and Personality Development and Empowerment of Adolescents, Technical and Resource Development.

Kerala Lokayukta Act, 1999

In News

Recently, the Kerala government has proposed to amend the Kerala Lokayukta Act, 1999 with an ordinance, a move that has drawn criticism from the opposition.

The proposed ordinance envisages to limit the powers of the anti-corruption watchdog.

Major changes

• The Kerala cabinet has recommended to the Governor that he promulgates the ordinance.

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- The proposal sought to give the government powers to "either accept or reject the verdict of the Lokayukta, after giving an opportunity of being heard".
- By this ordinance, the quasi-judicial institution will turn into a toothless advisory body, whose orders will no longer be binding on the government.

About Lokpal and Lokayukta

- The Lokpal and Lokayukta Act, 2013 provided for the establishment of Lokpal for the Union and Lokayukta for States.
- These institutions are statutory bodies without any constitutional status.
- They perform the function of an "ombudsman" and inquire into allegations of corruption against certain public functionaries and for related matters.
- The Lokpal and Lokayuktas Act, 2013 provides for establishing a Lokpal headed by a Chairperson, who is or has been a Chief Justice of India, or is or has been a judge of the Supreme Court, or an eminent person who fulfills eligibility criteria as specified.

Historical Background

- In 1809, the institution of ombudsman was inaugurated officially in Sweden.
- In the 20th century, the Ombudsman as an institution developed and grew most significantly after the Second World War (1939-45).
- In 1967, on the recommendations of the Whyatt Report of 1961, Great Britain adopted the institution of the ombudsman and became the first large nation in the democratic world to have such a system.
- In India, the concept of constitutional ombudsman was first proposed by the then law minister Ashok Kumar Sen in parliament in the early 1960s.
- The terms Lokpal and Lokayukta were coined by Dr. L. M. Singhvi.
- In 1966, the First Administrative Reforms Commission recommended the setting up of two independent authorities- at the central and state level, to look into complaints against public functionaries, including MPs.
- In 1968, Lokpal bill was passed in Lok Sabha but lapsed with the dissolution of Lok Sabha and since then it lapsed in the Lok Sabha many times.

Ministry of Education launches Bhasha Certificate Selfie campaign

In News

The Ministry of Education launched a campaign 'Bhasha Certificate Selfie'.

'Bhasha Certificate Selfie':

- 'Bhasha Certificate Selfie' encourages cultural diversity and promotes multilingualism and to foster the spirit of Ek Bharat Shreshtha Bharat.
- Bhasha Certificate Selfie initiative aims to promote the Bhasha Sangam mobile app.
- It is developed by the Ministry of Education and MyGov India.
- The initiative is under the aegis of Ek Bharat Shreshtha Bharat.
- It will aim to ensure that people acquire basic conversational skills in Indian languages.

Operation Ganga

In News

Prime Minister chaired a high-level meeting to review the ongoing efforts under Operation Ganga to bring back Indians stranded in Ukraine.

Operation Ganga

• India evacuated its stranded citizens from Ukraine via Romania and Hungary through "Operation Ganga".

- The risky evacuation is taking place in the middle of a war, where Indian professionals are currently stranded in an underground bunker in Ukraine's capital Kyiv.
- Indian citizens entered Hungary from the Ukrainian border at the Zahony crossing and reached Budapest for the Air India flight.

International Monsoons Project Office launched

In News

Union Minister of State Science & Technology launched the International Monsoons Project Office (IMPO).

International Monsoons Project Office (IMPO):

- The International Monsoons Project Office (IMPO) will be hosted at the Indian Institute of Tropical Meteorology (IITM), Pune, an institution under the Ministry of Earth Sciences, Govt of India, initially for five years.
- Both the World Climate Research Programme and World Weather Research Programme are international programmes coordinated by the United Nations World Meteorological Organization (WMO).
- The IMPO would support activities of the Monsoons Panel, jointly established by the World Climate Research Programme's CLIVAR (Climate and Ocean Variability, Predictability, and Change) and GEWEX (Global Energy and Water Exchanges) projects.
- The launch of IMPO is aligned with this year's theme of the National Science Day 'Integrated Approach in Science and Technology for a Sustainable Future'.
- It is being organized in India jointly by the Ministry of Earth Sciences, World Climate Research Programme, and World Weather Research Programme in March 2022.
- The IMPO is a step towards making India a global hub for monsoon research and coordination in a seamless manner for addressing common and region-specific aspects of the monsoons around the world.

PM CARES scheme for children

In News

The PM CARES for Children scheme has been extended till the end of February, 2022 by the Ministry of Women and Child development.

About the scheme:

- This scheme was launched by the government to extend assistance to the children who lost their parents or single parents or legal guardians / adoptive parents due to COVID-19.
- Under this scheme, an amount of Rs. 10 lakhs has been allocated to the children from the PM CARES Fund. This lump sum amount would be given to the children on attaining 23 years of age.
- The major aim of the scheme is to offer care and protection to the children in a sustainable manner through health insurance, proper education along with the provision of financial support till they reach the age of 23 ensuring a monthly stipend from the age of 18.

One class, One Channel

In News

A webinar on 'Widening reach of One Class-One channel has been organised by the Ministry of Education and was addressed by the Prime Minister.

About the Webinar:

• The significance of creating online content in the mother tongue has been discussed.

- Immense focus has been provided to the futuristic vision of digital education across the country and there were discussions on technical preparations required for initiating 200 PM eVidya DTH TV channels.
- The concern of heterogeneity among the learners' group has been raised and the need to introduce innovation in pedagogy for better learning outcomes has been highlighted.
- It is envisaged that the One Class-One Channel programme will play a transforming role in creating better learning outcomes.
- The medium of tele-schooling through the satellite medium of the Edustat network was discussed.
- The requirement of infrastructural set-up, creation of quality e-content in various languages, creation of quality digital content for DIVYANG (Persons with disabilities) and the gifted children were some of the key elements of the One Class-One Channel initiative.

National Means-cum-merit Scholarship Scheme

In News

The continuation of the National Means-cum- Merit Scholarship scheme has been approved by the government over the 15th Finance Commission cycle for a period of five years.

About the Scheme:

- The objective of the scheme is to offer scholarships to meritorious students of economically weaker sections to reduce the dropout rate from school encouraging them to continue their studies at the secondary level.
- To take the scheme further, one lakh fresh scholarships will be provided to the students of class IX every year and their continuation in classes X to XII.
- It covers the government aided and local body schools apart from the schools under the state government.
- The students are selected through an examination conducted by the state and union territories. The scheme is available on the National Scholarship Portal.
- The scholarships are transferred to the bank accounts of the selected students through the Public Financial Management System (PFMS).
- As this is a central sector scheme, 100% funds are provided by the central government.

SEED Programme

In News

In order to create welfare for the Denotified, Nomadic and Semi Nomadic (DNTs) communities, the Scheme for Economic Empowerment of DNTs (SEED) was launched.

About SEED:

- The scheme has been introduced for families having an income of Rs. 2.50 lakh or less per annum.
- The families that are not benefited from the similar scheme of Central and State Governments will be covered under this scheme.
- The scheme will be implemented through a portal which is created by the Ministry of Social Justice and Empowerment.
- Followed by the registration of the beneficiaries to the portal, the applicants will be provided with a unique identification number which will be used as the permanent registration number enabling them to apply for one or more components of the scheme.
- A permanent database will be created in the portal for enrollment of applicants to the components of the scheme.
- The beneficiaries will receive the funds for the welfare schemes under SEED directly in their accounts.
- The Ministry of Rural Development, <u>National Rural Livelihood Mission</u> and the National Health Authority are the implementing agencies.

Jal Jeevan Mission

In News

Under the transformative programme of Jal Jeevan Mission, 9 crore rural households have been provided with access to tap water. This is a milestone achieved.

About Jal Jeevan Mission

- On the 15th of August 2019, the Jal Jeevan Mission was announced and intended to improve the quality of life and ease of living in rural areas with the supply of tap water.
- The objective is to develop the capacity of the local village community in order to achieve long term drinking water security.
- 'Har Ghar Jal' is the motto and spirit of the mission.
- Presently, every rural household in Goa, Haryana, Telangana, Andaman & Nicobar Islands, Puducherry, Dadar and Nagar Haveli and Daman & Diu is provided with the supply of tap water.
- The mission also aims to ensure the freedom of mothers and sisters from the traditional cumbersome task of fetching water for households improving their health, education and socio-economic conditions.
- Five women in each village have been trained to test water samples with the help of field test kits. These kits test the water samples on 9 parameters such as pH, alkalinity, chloride, nitrate, total hardness, fluoride, iron, residual free chlorine and hydrogen sulphide.
- This mission is geo-tagged which means the planning and programme implementation for drinking water supply for every village have been mapped using hydro-geomorphological maps.

New India Literacy Programme

In News

The Government of India has approved a scheme called the New India Literacy Programme to improve adult education and promote lifelong learning in accordance with the National Education Policy 2020.

Features of the scheme:

- The school will be the unit for implementation of the scheme.
- The survey of beneficiaries and voluntary teachers will be conducted in the schools.
- Performance Grading Index will be adopted for assessment at the state/UT and district levels on a yearly basis.
- An Outcome-Output Monitoring Framework will be set up for annual achievement survey of learning outcomes.
- Priority will be given in terms of categories to the girls and women, SC/ST/OBC/Minorities, Persons with Special Needs, marginalised/nomadic construction workers, labourers.

Objectives of the scheme:

- The objective of the scheme is to deliver the necessary components that intend to skill the youth and make them suitable for employment.
- It focuses on providing financial literacy, digital literacy, commercial skills, health care and awareness, vocational training and so on.
- It will be implemented through volunteerism and will be through online mode.
- The materials and resources will be provided digitally with easy access to the registered volunteers.
- It will cover the non-literates of the age of 15 years and above in all states and union territories.
- It will also assist to achieve the target of foundational literacy and numeracy for FY 2022-27 which aims to cover 5 crore learners by using Online Teaching, Learning and Assessment System (OTLAS) in collaboration with the National Informatics Centre, NCERT and other institutions.

National Air Sports Policy (NASP 2022)

In News

In order to promote air sports in the country, the Government has prepared a draft National Air Sports Policy (NASP 2022).

National Air Sports Policy (NASP 2022):

- National Air Sports Policy (NASP) seeks to leverage India's potential for air sports and places a strong focus on ensuring international best practices in safety.
- The vision of the policy is to make India one of the top air sports nations by 2030.
- Once NASP 2022 is finalized and the proposed Air Sports Federation of India (ASFI) is constituted, the Government may release the funds based on need and justification.
- **Sports covered under the policy**: aerobatics, aeromodelling, amateur-built and experimental aircraft, ballooning, drones gliding, hang gliding and paragliding, micro-lighting and paramotoring, skydiving and vintage aircraft.

SMILE Scheme

In News

The Union Minister for Social Justice & Empowerment launched the Central Sector scheme "SMILE: Support for Marginalised Individuals for Livelihood and Enterprise".

SMILE Scheme

- This is an umbrella scheme, to provide comprehensive welfare and rehabilitation to the Transgender community and the people engaged in the act of begging.
- The two sub-schemes of SMILE include, -Central Sector Scheme for Comprehensive Rehabilitation for Welfare of Transgender Persons.
- It provides Scholarships for Transgender Students studying in IX and till post-graduation.
- It has provisions for Skill Development and Livelihood under the PM-DAKSH scheme.
- Through Composite Medical Health, it provides a comprehensive package in convergence with PM-JAY supporting Gender-Reaffirmation surgeries through selected hospitals.
- The Provision of Transgender Protection Cell in each state will monitor cases of offences and ensure timely registration, investigation and prosecution of offences.
- The National Portal & Helpline will provide necessary information and solutions to the Transgender community and the people engaged in the act of begging when needed.
- Central Sector Scheme for Comprehensive Rehabilitation of persons engaged in the act of Begging.
- Will focus on Survey and identification, Mobilisation, Rescue/ Shelter Home and Comprehensive resettlement of people engaged in the act of begging.
- The scheme aims at achieving social security through multiple dimensions of identity, medical care, education, occupational opportunities and shelter.
- The Ministry of Social Justice & Empowerment has allocated Rs. 365 Crore for the scheme from 2021-22 to 2025-26.

Samajik Adhikarita Shivir

In News

The Social Justice and Empowerment Ministry launched 'Samajik Adhikarita Shivir' and 'An Integrated Mobile Service Delivery Van' for Divyangjan and Senior Citizens.

Samajik Adhikarita Shivir

- It is a program that will be organized to distribute aids and assistive devices to Physically Disabled persons under ADIP Scheme and Senior citizens under Rashtriya Vayoshri Yojana
- The program will be organized by the Department of Empowerment of Persons with Disabilities (DEPwD) in association with the Artificial Limbs Manufacturing Corporation of India (ALIMCO), which is a public sector enterprise under the DEPwD.
- The Union Minister will also launch 'An Integrated Mobile Service Delivery Van' which has been developed by ALIMCO to provide "After-Sale Service".

SBM-U 2.0 and AMRUT 2.0

In News

Both SBM-U 2.0 and AMRUT 2.0 have been launched to make cities 'garbage-free' and 'water-secure'.

About SBM-U 2.0:

- Swachh Bharat Mission–Urban (SBM-U) 2.0 was launched in 2021 for a Mission period of five years.
- It involves urban-rural convergence, whereby infrastructure projects can be taken up on a cluster basis to groups of neighbouring Urban Local Bodies (ULBs) and rural areas.
- The aim of Swachh Bharat Mission 2.0 is to make the cities garbage-free.

Atal Mission for Rejuvenation and Urban Transformation 2.0 (AMRUT 2.0)

- AMRUT 2.0 is a step towards AatmaNirbhar Bharat with the aim of making the cities 'water secure' and providing functional water tap connections to all households.
- Mission also targets to provide 100% sewage/septage management in 500 AMRUT cities.
- The mission will co-opt women and youth for concurrent feedback about its progress.

Nai Roshni Scheme

In News

Recently, the Ministry of Minority Affairs has informed the Rajya Sabha that the Government has sanctioned Rs 26 crore under the Nai Roshni scheme in the last three years (2018-19 to 2020-21) through which around one Lakh women have been trained.

Nai Roshni Scheme

- Nai Roshni scheme is a Central Sector scheme.
- **AIM** to empower and enhance confidence in women by providing knowledge, tools and techniques for Leadership Development of Women.
- It is a six-day non-residential/five-day residential training programme conducted by selected Programme Implementing Agencies for the women belonging to minority communities in the age group of 18 to 65 years.

Non-Lapsable Central Pool of Resources Scheme

In News

The expenditure under the NLCPR-State scheme is now being made for ongoing projects to meet committed liabilities as per reported actual progress.

Non-Lapsable Central Pool of Resources (NLCPR)

• The Non-Lapsable Central Pool of Resources (NLCPR) Scheme came into existence in 1998 under the Planning Commission.

- Subsequently, it was transferred to DoNER (Department for Development of North-East Region) in 2001.
- Funds under the scheme are shared between the Central and State Governments on a 90:10 basis.
- The broad objective of the NLCPR Scheme is to ensure the speedy development of infrastructure in the N-E region.

One District One Product

In News

Government offers a giant technology boost to the One District One Product Mission.

About ODOP

- Under the initiative of the Department for Promotion of Industry and Internal Trade, the Ministry of Commerce and Industry, **Lakadong Turmeric** has been listed under the ODOP mission.
- For the first time, a fly-off event took place with the usage of drones for the delivery of the product from the hinterland.
- This model of technology infusion will be a landmark for resolving the connectivity issues of the farmers to bring their produce to the market.
- **The Lakadong Turmeric** is grown in the West Jaintia Hills of Meghalaya with the highest curcumin content of about 7-9% which can be a major boost to the economy of the district.

Nipun Bharat Scheme

In News

The Department of School Education and Literacy, Ministry of Education, Government of India has launched the National Mission on Foundational Literacy and Numeracy called National Initiative for Proficiency in Reading with Understanding and Numeracy.

About NIPUN Scheme

- It was launched on 5thJuly 2021 under the aegis of Centrally Sponsored Scheme of SamagraShiksha.
- The mission aims to achieve universal foundational literacy and numeracy in primary classes and to ensure that all children attain grade level competencies in reading, writing and numeracy.
- The Mission lays down priorities and actionable agendas for States/UTs to achieve the goal of proficiency in foundational literacy and numeracy for every child by grade 3.
- A National Achievement Survey across the country has been conducted on 12th November 2021 for Grade 3, 5, 8 and 10 students of State Government schools, Government Aided schools, Private Unaided recognized schools and Central Government schools for assessing the competencies attained by the students vis-à-vis learning outcomes.

PM SVANidhi Scheme

In News

The Ministry of Housing and Urban Affairs (MoHUA) is implementing Prime Minister Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi Scheme) since June 01, 2020 to facilitate collateral free working capital loan to street vendors to restart their businesses, which were adversely impacted during the Covid-19 pandemic.

Features of the Scheme

• Facilitate collateral free working capital loan up to ₹10,000 of 1-year tenor; enhanced loan of ₹20,000 and ₹50,000 in the second and third tranches respectively, on repayment of earlier loans.

- Incentivize regular repayment, through interest subsidy @ 7% per annum; and
- Reward digital transactions, by way of cash back up to ₹1,200 per year.
- As on 15.03.2022, loans amounting to ₹3,119 crore have been released to the beneficiaries by the Lending Institutions.

Tele Law Mobile App

In News

The Citizens' Tele-Law Mobile App, launched recently, enables the individual beneficiary to access pre-litigation advice and hold consultation directly with the Panel Lawyer, free of cost.

About App

- This App is available in 6 languages viz English, Hindi, Marathi, Punjabi, Tamil and Telugu on both Android and iOS platform.
- This method of direct consultation through smart phone based App supplements the already-existing assisted model of seeking legal advice available at Common Service Centres (CSCs) at the Panchayat level which connects individual beneficiaries with Panel Lawyers via telephonic and video conferencing facilities, available at these CSCs.
- Tele-Law is presently operational in 669 Districts across 36 States/UTs covering 75,000 Gram Panchayats.
- The service at CSCs is free for persons entitled under Section 12 of the Legal Services Authorities (LSA) Act, 1987 and for others at Rs.30/- per consultation.
- The Government launched the "Tele-Law on Wheels" campaign from 8th to 14th November, 2021 creating awareness about the Mobile App reaching out to nearly 52,000 participants.
- In addition, the Government has launched Nyaya Bandhu (Pro-bono Legal Services) programme to link the persons eligible to avail free legal aid under Section 12 of LSA Act, 1987 with the pro-bono lawyers.

NCW Launches Anti-Human Trafficking Cell

In News

The National Commission for Women launched an Anti-Human Trafficking Cell today to improve effectiveness in tackling cases of human trafficking.

About The Cell

- It will raise awareness among women and girls, capacity building and training of Anti Trafficking Units and to increase responsiveness of law enforcement agencies.
- The Cell has been set up with an aim of increasing awareness among law enforcement officials and to facilitate their capacity building.
- The Cell will conduct Gender Sensitization Trainings and Workshops in combating human trafficking for police officers and for prosecutors at regional, state and district level.
- The complaints related to human trafficking received by the Commission will be addressed by this cell.
- The Cell will improve monitoring mechanism and encourage government agencies regarding measures being adopted for prevention of trafficking and rehabilitation of victims.
- The Cell will also help survivors of trafficking in rebuilding their lives by providing them with need-based training and by organizing capacity building programs for them to prevent re-traumatization of victims.

Reason

The Commission has observed that some of the major issues faced in combating trafficking include lack of rehabilitation for victims and insensitive attitude towards trafficked survivors and their families.

Zonal Conference of 8 North-East States in Guwahati

In News

Union Minister for Women and Child Development, Smt. Smriti Zubin Irani will chair the Zonal Conference of State Govts and Stakeholders of North-East region in Guwahati.

Details

- States of Assam, Arunachal Pradesh, Manipur, Tripura, Mizoram, Meghalaya, Sikkim and Nagaland will participate in the meeting.
- In order to ensure optimum impact of recently launched 3 Missions- POSHAN 2.0, Vatsalya and Shakti, the Ministry of Women and Child Development has initiated a series of Zonal Consultations with State Govts and Stakeholders in each region of the country.
- Zonal meeting in Guwahati is the third in the series. First such meeting was held in Chandigarh on 2nd April and second in Bengaluru on 4th April, 2022.

Mission POSHAN 2.0

- Mission POSHAN 2.0is an Integrated Nutrition Support Programme.
- It seeks to address the challenges of malnutrition in children, adolescent girls, pregnant women and lactating mothers through a strategic shift in nutrition content and delivery and by creation of a convergent ecosystem to develop and promote practices that nurture health, wellness and immunity.
- Poshan 2.0 will seek to optimize the quality and delivery of food under the Supplementary Nutrition Program.

Mission Shakti

- **Mission Shakti** envisages a unified citizen-centric lifecycle support for women through integrated care, safety, protection, rehabilitation and empowerment to unshackle women as they progress through various stages of their life.
- Mission Shakti has two sub-schemes 'Sambal' and 'Samarthya'.
- While the "Sambal" sub-scheme is for safety and security of women, the "Samarthya" sub-scheme is for empowerment of women.

Mission Vatsalya

Objective - to secure a healthy and happy childhood for every child in the country; foster a sensitive, supportive and synchronized ecosystem for development of children; assist States/UTs in delivering the mandate of the Juvenile Justice Act 2015; achieve the SDG goals.

Smart Cities, Smart Urbanization' Conference

In News

The Ministry of Housing and Urban Affairs (MoHUA), Government of India under the clarion call of Azadi ka Amrit Mahotsav (AKAM) by Hon'ble Prime Minister to commemorate the 75th anniversary of Independence, is organising "Smart Cities, Smart Urbanization" event from 18-20 April, 2022 in Surat, Gujarat.

Details

- Focused on five sub-themes vis. Reimagining Public Spaces, Digital Governance, ClimateSmart Cities, Innovation and Smart Finance, the conference will help disseminate the learnings from Smart Cities to other cities and towns of the country.
- Several key initiatives will be launched during the event vis. release of Urban Outcomes Framework 2022 including, 'Ease of Living', 'Municipal Performance Index', 'Data Maturity Assessment Framework 3.0 and ClimateSmart Cities Assessment Framework 3.0. Ministry's integrated data portal AMPLIFI, which will provide valuable data on Indian cities.
- A comprehensive dashboard on Outcome Output Management Framework (OOMF dashboard in GMIS) with more than 7800 projects being measured for their contributions to urban life and Sustainable Development Goals, will also be released during the event.

Smart cities Mission

- SCMis a transformational Mission aimed to bring about a paradigm shift in the practice of urban development in the country.
- Projects developed under the Smart Cities Mission are multi-sectoral and mirror the aspirations of the local population.
- As on date, 80 Smart cities have developed and operationalised their Integrated Command and Control Centres (ICCCs) in the country.
- These operational ICCCs functioned as war-rooms for COVID management, and along with other smart infrastructure developed under the mission, helped cities in fighting the pandemic through information dissemination, improving communication, predictive analysis and supporting effective management.

Singapore International Water Week 2022

In News

Director General, National Mission for Clean Ganga (NMCG) participated virtually in Singapore International Water Week, Water Convention 2022 and gave a presentation on 'Status of Wastewater Generation, Treatment and Management in India.

Initiatives by Central Govt.

- The formation of Jal Shakti Ministry in 2019 "a historic moment".
- 'Catch the Rain: Where it Falls, When it Falls' campaign under the Jal Shakti Abhiyan.
- The focus of the Phase-II of Namami Gange Programme will be on sewerage infrastructure creation in the tributaries of Ganga such as Yamuna and scaling up of PPP development efforts.

Arth Ganga

- It implies a sustainable development model with a focus on economic activities related to Ganga.
- As part of this process, farmers will be encouraged to engage in sustainable agriculture practices, including zero budget farming, planting of fruit trees and building plant nurseries on the banks of Ganga.
- Above practices, along with creation of infrastructure for water sports and development of campsites, cycling and walking tracks etc., would help to tap the 'hybrid' tourism potential of the river basin area- for purposes of religious as well as adventure tourism.
- Almost half of the Indian population lives around the Ganges River belt. Moreover, of India's total freight, about 1/5th originates and 1/3rd terminates in the states around Ganges Belt. Thus, inland waterway is one of the most important pillars of "Arth Ganga" project."
- One of the verticals of Arth Ganga is 'Zero Budget Natural Farming' which aims at facilitating the natural farming process by providing natural manure/soil conditioner made out of sludge and reduce the use of

chemicals and fertilizers by the farmers thereby developing a circular economy model in sludge management with economic benefits to the stakeholders (farmers in this case)."

Noise Pollution

In News

An ultimatum by Raj Thackeray, president of the Maharashtra Navnirman Sena (MNS), that repercussions would follow if speakers on mosques were not removed by May 3, has created political turmoil in the state.

Noise

- As per the Central Pollution Control Board's mandate for noise pollution, 'noise' is defined as unwanted sound. Sound, which pleases the listener, is music and that which causes pain and annoyance is noise.
- At times, what is music for some can be noise for others. Any unwanted sound that causes annoyance, irritation and pain to the human ear is termed 'noise'.

The Noise Pollution (Regulation and Control) Rules, 2000

- Section 2 (a) of the Air (Prevention and Control of Pollution) Act, 1981 includes noise in the definition of 'air pollutant'.
- Noise pollution and its sources are regulated under The Noise Pollution (Regulation and Control) Rules, 2000 under The Environment (Protection) Act, 1986.
- The Act has defined ambient acceptable noise levels, silence zones, restrictions on the use of loudspeakers, horns, sound-emitting construction equipment, and bursting of crackers.
- It has also laid down the responsibility for enforcement.
- Noise pollution Rules have defined the acceptable level of noise in different zones for both daytime and night time. In industrial areas, the permissible limit is 75 decibels (unit of sound; tenth of a 'bell', symbol dB) for daytime, and 70 dB for night.
- Daytime is defined as the period from 6 am to 10 pm, and night is 10 pm to 6 am of the following day.
- In commercial areas, these ceilings are fixed at 65 dB and 55 dB, while in residential areas they are 55 dB and 45 dB during daytime and night respectively
- In silence zones, i.e., an area comprising not less than 100 metres around hospitals, educational institutions and courts, it is 50 dB in the daytime and 40 dB during the night.

Impact on Health

- According to the World Health Organisation (WHO), about 1.1 billion young people (aged between 12–35 years) are at the risk of hearing loss due to noise exposure.
- The WHO has stated that there is sufficient evidence that noise exposure at night causes self-reported sleep disturbance and noise-induced sleep disturbance is viewed as a health problem.
- WHO also states there is evidence, albeit limited, that disturbed sleep causes fatigue, accidents and reduced performance.
- Various physical disorders due to higher noise include temporary deafness, headache and an increase in blood pressure.

48th All India Police Science Congress

In News

Union Home and Cooperation Minister Shri Amit Shah addressed the inaugural session of the 48th All India Police Science Congress in Bhopal.

About the congress

- The All India Police Science Congress has a very important contribution to make in policing of the country from two perspectives.
- One is coordination between the police across the country to deal with similar challenges and the other is the use of technology to stay two steps ahead of criminals.
- The Police Science Congress is the ideal forum to discuss and work on a common strategy and synergy.
- Such meetings, being held under the aegis of BPR&D, provide a platform got police across the country to address these shortcomings and face common challenges.

Police Technology Mission

Prime Minister had announced a Police Technology Mission for this, the Ministry of Home Affairs has made a blueprint which we will send to state police through the BPR&D for suggestions.

Benefits of Technology

- The police across the country should work to utilize all nine citizen services under CCTNS and take them to every police station.
- Anti-Terrorist Squads should be activated to study FIRs and data, NCB has been asked to prepare a database on Narcotics cases and Interoperable Criminal Justice System has also created a great amount of data, as well as the National Database of Sex Offenders (NDSO) has also been prepared. For Science of Police, we have to advance the use of Medical Science, Forensic Science, Management Science, Arms Science and Communications Science

National Panchayati Raj Day

In News

- Prime Minister Shri Narendra Modi will undertake a visit to Jammu & Kashmir to participate in the celebration of National Panchayati Raj Day.
- Ministry of Panchayati Raj has requested all Gram Panchayats to organize Special Gram Sabha meetings on 24th April, 2022 across the country to mark the occasion of National Panchayati Raj Day.

Details

- During the visit, Prime Minister will inaugurate and lay the foundation stone of multiple development initiatives worth around Rs 20,000 crore.
- He will also launch the Amrit Sarovar initiative.

Banihal Qazigund Road Tunnel

- PM will inaugurate the Banihal Qazigund Road Tunnel, built at a cost of over Rs 3100 crore.
- The 8.45 Km long tunnel would reduce the road distance between Banihal and Qazigund by 16 km, and reduce journey time by around one and a half hour.
- It is a twin tube tunnel one for each direction of travel with the twin tubes being interconnected by a cross passage every 500m, for maintenance and emergency evacuation.

• The tunnel would help establish an all weather connection between Jammu and Kashmir, and bring the two regions closer.

Ratle and Kwar Hydroelectric project

- PM will lay the foundation stone of **Ratle and Kwar** Hydroelectric projects.
- The 850 MW Ratle Hydroelectric Project will be constructed on Chenab river in Kishtwar District at a cost of around Rs 5300 crore.
- The 540 MW Kwar Hydroelectric Project will also be built on Chenab river in Kishtwar District at a cost of over Rs. 4500 crore.
- Both the projects will help meet the power requirements of the region.

Amrit Sarovar

- AIM- Developing and rejuvenating 75 water bodies in each district of the country.
- It is yet another ode of the government towards the celebration of Azadi ka Amrit Mahotsav.

Background

- 24th April is observed by the Ministry of Panchayati Raj as National Panchayati Raj Day (NPRD) every year to celebrate the constitutional status accorded to Panchayati Ray system in the country.
- This occasion provides an opportunity for direct dialogue with Panchayat representatives from all over the country as well as recognizing their achievements to empower and motivate them.
- **The objective** of the celebrating the National Panchayati Raj Day is to increase awareness about Panchayats and Gram Sabhas, the institutions of the local self-governments for the rural areas mandated by the Constitution, and also about their roles, responsibilities, achievements, concerns, resolutions etc.
- States and Union Territories are requested to celebrate National Panchayati Raj Day in a befitting manner and call upon Panchayati Raj Institutions/ Rural Local Bodies to celebrate National Panchayati Raj Day with a 'whole of society' approach ensuring maximum possible 'Jan Bhagidari'.
- National Panchayat Awards are also conferred to well-performing Panchayats on this occasion.

Master Deenanath Mangeshkar Awards

- Prime Minister will be conferred 1st Lata Deenanath Mangeshkar Award.
- This award, which has been instituted in memory of Bharat Ratna Lata Mangeshkar, will be given every year exclusively to one individual for exemplary contribution towards nation building.

e-Panchayat Puraskar

- The **e-Panchayat Puraskar** is conferred to those States which have ensured maximum use of information technology for monitoring the works of the Panchayats.
- The ranking of the following States that have been adjudged for e-Panchayat Puraskar under both the categories is as follows:

Winning States under Category I:

- 1st Place Karnataka
- 2nd Place Chhattisgarh
- 3rd Place Odisha and Uttar Pradesh

Virtual Regional Conclaves on PM Cares for Children Scheme

In News

In order to foster sensitization regarding various aspects of PM Cares for Children Scheme, the National Commission for Protection of Child Rights (NCPCR) organized **4 virtual Regional Conclaves on PM Cares for Children Scheme.**

Objective

To sensitize and bring-in the roles being played by all the stakeholder Departments.

PM Cares for Children Scheme

- **PM Cares for Children Scheme** was launched by the Prime Minister of India on 29th May 2021 to provide comprehensive support for children who have lost both their parents or legal guardians or Adoptive Parents or Surviving Parents to the COVID-19 pandemic.
- This Scheme enables the well-being of such children through health insurance, empowers them through education, and equips them for self-sufficient existence with financial support.
- **The Ministry of Women and Child Development** has been anchoring the Scheme, which is leveraging technology to identify, register and support the children through an online portal.

NCPCR

- National Commission for Protection of Child Rights (NCPCR) is a statutory body constituted under provision of the Commission for Protection of Child Rights (CPCR) Act, 2005 (4 of 2006) for protection of child rights and other related matters.
- Along with its other functions and roles, the Commission under Section 13 (1) (h) of the CPCR Act, 2005 is mandated to; "spread child rights literacy among various sections of the society and promote awareness of the safeguards available for protection of these rights through publications, the media, seminars and other available means.

Mandate Document of National Curriculum Framework (NCF)

In News

- Union Education Minister Shri Dharmendra Pradhan will launch the Mandate Document of National Curriculum Framework (NCF).
- The National Education Policy (NEP), 2020 recommends the development of National Curriculum Frameworks (NCF) in four areas- School Education, Early Childhood Care and Education (ECCE), Teacher Education and Adult Education.

About The Mandate

- The Mandate Document describes the development process of the NCF, its expected structure and objectives, and some of the basic principles from the NEP 2020 that will inform the development of the four NCFs.
- The NCF is being drafted through a collaborative and consultative process, starting from district to state level and then National level.
- The 'Guidelines for Position Papers for the Development of the National Curriculum Framework' is an integral part of this Mandate Document.
- Four curriculum frameworks, 25 themes based on the perspectives of the NEP, 2020 are identified under the three categories, viz., 1. Curriculum and Pedagogy 2. Cross-cutting Issues 3. Other important areas of NEP, 2020 focussing on systemic changes and reforms.

ADIGRAMS

In News

MoTA organised two-day's hands-on training of key functionaries from across the Jharkhand state on ADIGRAMS (Adivasi Grants Management System) on 27th and 28th April 2022.

ADIGRAMS

- ADIGRAM is a unique portal which monitors physical and financial progress of the grants given by the Ministry to States and can track the actual utilization of funds.
- The details of beneficiaries are also uploaded on portal and the infrastructure projects are geotagged.
- Similar programs have been conducted by the Ministry in Maharashtra, Himachal, Chhattisgarh, Meghalaya, where in training is as conducted by team of technical experts from MoTA and UNDP.
- Sh Jayant Kumar from UNDP and team of Dhanush Infotech who have developed this portal are conducting regular training programs online and offline as per requirement of the states.

National Curriculum Framework (NCF)

In News

Union Education Minister Shri Dharmendra Pradhan released the 'Mandate Document: Guidelines for the Development of the National Curriculum Framework (NCF)' at a function held at Indian Institute of Science, Bengaluru.

Features of NCF

- The Mandate Document is the bridge between the NEP 2020 and the NCF.
- It provides clear and specific anchors for the NCF to the vision, principles, and approach of NEP 202.
- It sets the mechanisms for the development of a coherent and comprehensive NCF, fully leveraging the widespread consultations already under way
- The process designed ensures the seamless integration imagined vertically (across Stages) and horizontally (across subjects in the same Stage) in the NEP 2020 to ensure holistic, integrated, and multi-disciplinary education
- It enables the critical linkage between the curriculum of schools with the curriculum of Teacher Education as an integral part of the transformative reforms envisioned by the NEP 2020 in the overall Teacher Education sector, thus enabling rigorous preparation, continuous professional development, and a positive working environment for all our teachers
- It informs the creation of opportunities for life-long learning for all citizens in the country
- Directly 'useable by' and 'relatable to' the most important stakeholders in education teachers, students, parents, and communities across the country to enable and empower, change and improve the reality of education practice
- Anchored and informed by sound theory and cutting-edge research, yet using simple language with real-life illustrations from classrooms and schools in a variety of contexts

Karnataka Prevention of Slaughter and Preservation of Cattle Act

In News

Accusing the Government of creating fear psychosis among farmers using the Karnataka Prevention of Slaughter and Preservation of Cattle Act, a convention of dairy farmers has demanded that the legislation be scraped at the earliest in their interest.

Concerns

- Police were harassing farmers by using the provisions of the legislation.
- While farmers are under watch by banning cow slaughter, the sale and export of beef by corporates has not been banned.
- Farmers are banned from selling their cows to slaughter houses even if they were infertile. This results in more number of farmers, particularly dairy farmers, quitting agriculture and allied activities.

Provisions

- Police officers ranked sub-inspector and above or a competent authority will have the power to search premises and seize cattle and materials used or intended to use to commit the offence.
- Such seizures, if any, will then be reported before the Sub Divisional Magistrate without unreasonable delay.
- It is a cognizable offence, violators can attract three to seven years of imprisonment.
- While a penalty between Rs 50,000 and Rs 5 lakh can be levied for the first offence, second and subsequent offences can attract penalties ranging between Rs 1 lakh and Rs 10 lakh.

Dairy Sector

- The sector that will take the largest hit from the legislation is the dairy industry. India's dairy industry is massive with an annual turnover of Rs 6.5 lakh crore making it by far India's largest agricultural product.
- India's farmers earn more from dairy than wheat and rice put together. India has almost as many bovines as people in the United States with one for every four Indians.
- The problem with the bill is that that slaughter is integral to the dairy industry's economic functioning. Dairy farming in India functions on small margins. As a result, the upkeep of unproductive animals would throw their bottom lines out of alignment.

Computer Emergency Response Team (CERT-In)

In News

Shri Ajit Doval,KC, National Security Advisor, inaugurated the National Cyber Security Incident Response Exercise alongside Lt General Rajesh Pant, National Cyber Security Coordinator and Dr Satheesh Reddy, Secretary DRDO.

Measures taken to prevent Cyber crime

- All service providers, intermediaries, data center providers, corporates, and government organizations have to report cyber incidents within six hours of their detection.
- The new directions require virtual asset, exchange, and custodian wallet providers to maintain records on KYC and financial transactions for a period of five years.
- Companies providing cloud, virtual private network (VPN) will also have to register validated names, emails, and IP addresses of subscribers.
- Service providers will also have to provide information and assistance to CERT-In for any action taken to mitigate the impact of the cyber incident.

• To ensure the chain of events is accurately reflected in the time frame, service providers have been asked to connect and synchronize all their ICT systems clocks to **the Network Time Protocol (NTP)** Server of **the National Informatics Centre (NIC) or National Physical Laboratory (NPL).**

CERT-In

- CERT-In is the national nodal agency for responding to computer security incidents as and when they occur.
- The constituency of CERT-In is the Indian Cyber Community.
- **CERT-In was established in 2004** as a functional organization of the Ministry of Electronics and Information Technology.

Telangana Formation Day

In News

The Ministry of Culture is organising Telangana Formation Day celebrations at Dr Ambedkar International Centre, New Delhi.

About Telangana

- On 2nd June, 2014 the north western part of Andhra Pradesh was separated and 29th state Telangana was created with Hyderabad as its capital.
- The Andhra State Act (1953) formed the first linguistic state of India, known as the state of Andhra, by taking out the Telugu speaking areas from the State of Madras (now Tamil Nadu).
- The States Reorganisation Act (1956) merged the Telugu-speaking areas of Hyderabad state with the Andhra state to create the enlarged Andhra Pradesh state.
- The Andhra Pradesh Reorganisation Act (2014) bifurcated Andhra Pradesh into two separate states, namely, the Andhra Pradesh (residuary) and the Telangana.
- The state of Telangana was officially formed on 2nd June 2014 and the day is celebrated as 'Telangana Day' or 'Telangana Formation Day'.

National Air Sports Policy

In News

The Minister of Civil Aviation Shri Jyotiraditya M. Scindia launched National Air Sport Policy 2022 (NASP 2022).

NASP 2022

- NASP 2022 lays out the vision of making India as one of the top sports nations by 2030, by providing a safe, affordable, accessible, enjoyable and sustainable air sports ecosystem in India.
- The policy will cover the following air sports in India: -
 - \circ Aerobatics
 - Aero modeling and model rocketry
 - o Amateur-built and experimental aircraft
 - o Ballooning
 - o Drones
 - Gliding and powered gliding
 - Hang gliding and powered hang gliding
 - Parachuting (including skydiving, BASE jumping and wing suits etc.)
 - Paragliding and para motoring (including powered parachute trikes etc.)
 - \circ $\,$ Powered aircraft (including ultra light, micro light and light sports aircraft etc.)

• Rotorcraft (including autogyro)

Objectives

- Promote an air sports culture in the country
- Enable adoption of international good practices in safety including but not limited to, air sports infrastructure, equipment, operations, maintenance and training
- Develop a simple, stakeholder-friendly and effective governance structure
- Enhance participation and success of Indian sportspersons in global air sports events; and
- Promote design, development and manufacturing of air sports equipment in India in line with the Atmanirbhar Bharat Abhiyan.

Under the new policy, there will be four-tier governance structure for air sports in India namely

- Air Sports Federation of India (ASFI) as the apex governing body
- National associations for individual air sports or a set of air sports, as appropriate
- Regional (e.g. West/ South/ North East etc.) or State and Union Territory level units of the national air sports associations, as appropriate; and
- District-level air sports associations, as appropriate.

Indian Air Sports Players

- **Ms. Shital Mahajan** is known as the first woman to perform an accelerated free fall jump over the Antarctica from 10,000 feet, the youngest woman to jump over both the North and South Poles and the first woman jumper to perform it without trials
- Ms. Rachel Thomas was the first Indian woman to skydive from 7,000 feet over the North Pole.

MISSION KARMAYOGI

In News

The Finance Minister mentioned about Mission Karmayogi tasked with capacity building commission to come up with training modules in order to empower, train and skill the civil servants.

Mission Karamyogi

- To facilitate and build the capacity of the officials, the Institute of Government Accounts and Finance (INGAF) and Arun Jaitley National Institute of Financial Management (AJNIFM) have developed the courses to be published on the Igot karmayogi portal, DoPT.
- INGAF has developed the training programme on FR SR- III (Leave Rules) to increase knowledge of learners towards various leaves.
- The course curated by AJNIFM caters to procurement of goods and services, including execution of works.
- This would help officers posted in Integrated Finance Divisions (IFDs) of various Ministries/Departments in examining the proposals in light of GFRs and other instructions.

Features

- The transition from Rules Based to Roles Based Human Resource (HR) Management The focus is to allocate jobs to the civil servants based on their competencies.
- On-Site Learning to complement Off-Site Learning It is a training given to the civil servants on-site.
- An ecosystem of shared training infrastructure Civil servants to adapt to an ecosystem of shared learning materials, institutions and personnel.

- Framework of Roles, Activities and Competencies (FRACs) approach All civil services positions to be calibrated under this approach. Also based on this approach, all learning content will be created and delivered to every single government entity.
- Behavioural, Functional and Domain Competencies Civil Servants to build their competencies in their selfdriven and mandated learning paths.
- Co-creation of the common ecosystem by all the Central Ministries, Departments and their organizations This is a way to create an ecosystem of learning through an annual financial subscription for every employee.

Green Energy Open Access

In News

- In order to further accelerate our ambitious renewable energy programmes, with the end goal of ensuring access to affordable, reliable, sustainable and green energy for all, Green Open Access Rules, 2022 have been notified recently.
- These rules are notified for promoting generation, purchase and consumption of green energy including the energy from Waste-to-Energy plants.

Salient Features

- The Green Open access is allowed to any consumer and the limit of Open Access Transaction has been reduced from 1 MW to 100 kW for green energy, to enable small consumers also to purchase renewable power through open access.
- Provide certainty on open access charges to be levied on Green Energy Open Access Consumers which includes transmission charges, wheeling charges, cross-subsidy surcharge and standby charges. Cap on increasing of cross-subsidy surcharge as well as the removal of additional surcharge, not only incentivise the consumers to go green but also address the issues that have hindered the growth of open access in India.
- Transparency in the approval process of the open access application. Approval to be granted in 15 days or else it will be deemed to have been approved subject to fulfilment of technical requirements. It will be through a national portal.
- Determination of green tariff: The tariff for the green energy shall be determined separately by the Appropriate Commission, which shall comprise of the average pooled power purchase cost of the renewable energy, cross-subsidy charges if any, and service charges covering the prudent cost of the distribution licensee for providing the green energy to the consumers.
- The Rules will help to streamlining the overall approval process for granting Open Access including timely approval, to improve predictability of cash flows for renewable power producers. It will also bring Uniformity in the application procedure.
- Banking of surplus green energy with the distribution licensee mandated.
- Consumers will be given the green certificates if they consume green power.

Election to the Office of President of India, 2022

In News

- The term of office of Shri Ram Nath Kovind, President of India, is ending on 24th July, 2022.
- As per Article 62 of the Constitution of India, an election to fill the vacancy caused by the expiration of the term of office of the outgoing President is required to be completed before the expiration of the term.

Election of President

- The President is elected by the members of an electoral college consisting of elected members of both Houses of Parliament, and elected members of the Legislative Assemblies of all states as well as Delhi and Puducherry.
- According to Article 55 (3), the election is held in accordance with the system of proportional representation by means of single transferable vote.
- In this system, the elector has to mark preferences against the names of the candidates.
- The elector can mark as many preferences as the number of candidates.
- While the marking of the first preference is compulsory for the ballot paper to be valid, other preferences are optional.
- If there are five candidates for example, the voter will give five preferences.
- It is mandatory to give a first preference for the vote to be valid, but if the voter doesn't give other preferences, the vote will still be valid.

How is Winner Determined?

- The votes are weighted.
- For each MLA, the value is determined by the total population of the state divided by the number of MLAs, further divided by 1000.
- The value of each MLA's vote, therefore, varies from state to state, from a high of 208 in UP to a low of 7 in Sikkim.
- The values of the votes in the Assembly add up to 5.43 lakh.
- A similar total is assigned to the two Houses of Parliament, which have 776 MPs. The value of each MP's vote, therefore, works out to 5.43 lakh/776 = 700.
- The total value of the electoral pool is the sum of the vote values from the Assemblies and the two Houses, or 10.86 lakh.
- The winner is the candidate who polls the most votes out of this pool.

Guidelines on Prevention of Misleading Advertisements and Endorsements for Misleading Advertisements, 2022

In News

The Central Consumer Protection authority (CCPA) under the Department of Consumer Affairs has notified 'Guidelines for Prevention of Misleading Advertisements and Endorsements for Misleading Advertisements, 2022' with an objective to curb misleading advertisements and protect the consumers, who may be exploited or affected by such advertisements.

Major Guidelines

- It seek to ensure that consumers are not being fooled with unsubstantiated claims, exaggerated promises, misinformation and false claims.
- Such advertisements violates various rights of consumers such as right to be informed, right to choose and right to be safeguarded against potentially unsafe products and services.
- The present guidelines define "bait advertisement", "surrogate advertisement" and clearly provides what constitutes as "free claim advertisements".
- Guidelines forbid advertisements from exaggerating the features of product or service in such manner as to lead children to have unrealistic expectations of such product or service and claim any health or nutritional claims or benefits without being adequately and scientifically substantiated by a recognized body.

- Guidelines says that advertisement targeting children shall not feature any personalities from the field of sports, music or cinema for products which under any law requires a health warning for such advertisement or cannot be purchased by children.
- Guidelines stipulates that disclaimer shall not attempt to hide material information with respect to any claim made in such advertisement, the omission or absence of which is likely to make the advertisement deceptive or conceal its commercial intent and shall not attempt to correct a misleading claim made in an advertisement.
- Guidelines aims to protect consumer's interest through bringing in more transparency and clarity in the way advertisements are being published, so that, consumers are able to make informed decisions based on facts rather than false narratives and exaggerations.

Penalty

- CCPA can impose penalty of upto 10 lakh rupees on manufacturers, advertisers and endorsers for any misleading advertisements.
- For subsequent contraventions, CCPA may impose a penalty of upto 50 lakh rupees.
- The Authority can prohibit the endorser of a misleading advertisement from making any endorsement for upto 1 year and for subsequent contravention, prohibition can extend upto 3 years.

28th Joint Civil-Military Training Programme at LBSNAA

In News

- Raksha Mantri Shri Rajnath Singh has called for greater jointness of civil administration and Armed Forces to further strengthen national security and deal with future challenges that may emanate from the ever-evolving global situation.
- He was addressing the participants of 28th Joint Civil-Military Training Programme at Lal Bahadur Shastri National Academy of Administration (LBSNAA) in Mussoorie, Uttarakhand recently.

Joint Civil- Miliary programme

- The Joint Civil-Military Programme was initiated in 2001 with the aim of fostering structured interface between civil servants and Armed Forces officers for a shared understanding of national security.
- Participants are drawn from the Civil Services, Armed Forces and Central Armed Police Forces.
- **The objective** is to familiarise the participants with challenges to management of national security, emerging external and internal security environment and impact of globalisation; to provide an opportunity for the participants to interact and exchange ideas on the subject and expose them to the imperatives of civil-military synergy.

Benefits

- The Joint Civil-Military Programme at LBSNAA will play a crucial role in the journey of civil-military integration, which has started under the present Government.
- He hoped that the programme will prove to be beneficial for civil servants and Armed Forces officers in developing an understanding of coordination and collaboration in the domain of national security.

National e-Governance Service Delivery Assessment 2021, NeSDA 2021

In News

Jammu & Kashmir tops among all the Union territories of India in e-Governance services delivery, which has also enabled it to save around Rs 200 crore annually that was incurred in carriage of physical files during the Annual Durbar move between the two capital cities of Jammu and Srinagar.

NeSDA 2021

- Jammu & Kashmir was assessed for the first time in NeSDA 2021 and scored the highest amongst all UTs for six sectors.
- He said, after coming into force of the Jammu and Kashmir Reorganisation Act, 2019 with effect from 31 st October, 2019, J&K became the first UT in the country to have Good Governance Index and was also first to launch District Good Governance Index for 20 Districts of the Union Territory of Jammu and Kashmir in January this year.
- In NeSDA 2021, 1400 services across all States and UTs were assessed as compared to 872 in 2019, an increase of over 60%.
- 74% respondents of the nation-wide citizen survey conducted during the study had stated that they are satisfied with the e-Services provided by the States and UTs.
- The e-Services of Finance and Local Governance & amp; Utility Services sectors were the most widely used by citizens.

E-office

- The adoption of e-Office in DRDO, represented a milestone as it demonstrated that Departments with multiple field offices could use e-Office for real time transfer of files.
- e-Office has enabled the seamless movement of files to IFD and Department of Expenditure.
- E-Office version 7.0 is a significant advancement on e-Office over 6.0 with a number of new features, enabling references to external offices.
- This has enabled seamless movement of files to IFD and Dept of Expenditure.

Ranking of other states

- Kerala became a front runner and the progress made by Tamil Nadu, Jammu & amp; Kashmir and Uttar Pradesh in NeSDA 2021 was also commendable.
- In Service portals, Rajasthan, Punjab, Jammu & Kashmir and Meghalaya have topped the rankings.
- All States/ UT's have shown improvements in the promotion of integrated service portals and the number of services being offered on their state portals.

NCPCR to Celebrate Elimination of Child Labour Week

In News

National Commission for Protection of Child Rights (NCPCR) is celebrating Elimination of Child Labour Week in the honour of World Day against Child Labour in the 75 places as part of the "75th anniversary celebrations of India's independence.

About NCPCR

• National Commission for Protection of Child Rights (NCPCR) has been constituted by the Government of India, as a statutory body under section 3 of the Commissions for Protection of Child Rights (CPCR) Act, 2005 for dealing with the protection of child rights and related matters.

- Under section 13(1) of the Commissions for Protection of Child Rights (CPCR) Act, 2005, has provided certain functions to ensure that the rights of children are protected especially the most vulnerable and marginalized.
- In addition, the Commission has also been mandated to monitor the implementation of the Juvenile Justice (Care & Protection of Children) Act, 2015, Right of Children to Free & Compulsory Education (RTE) Act, 2009 and Prevention of Children from Sexual Offences Act, 2012.
- The NCPCR has developed a draft SOP on the rescue and post-rescue of child labour incorporating all provisions of various children related Acts which are applicable in these cases.

National e-Governance Service Delivery Assessment 2021 Report

In News

- Union Minister of State (Independent Charge), Ministry of Science and Technology, will release the second edition of the National e-Governance Service Delivery Assessment 2021 on 13th June 2022.
- The NeSDA 2021 report has been prepared covering the assessment of States, UTs, and focus Central Ministries on their effectiveness in delivering online services to citizens.

NeSDA 2021 report

- Department of Administrative Reforms & Public Grievances (DARPG) had constituted the National e-Governance Service Delivery Assessment (NeSDA) in 2019 as part of its mandate to boost the e-government endeavours and drive digital government excellence.
- The biennial study assesses States, Union Territories (UTs), and focus Central Ministries on the effectiveness of e-Governance service delivery. NeSDA helps the respective governments improve their delivery of citizen centric services and shares best practices across the country for all States, UTs and Central Ministries to emulate.
- The NeSDA 2021 Portal was formally launched in June 2021 to conduct the entire assessment process online.
- The DARPG team supported by NASSCOM and KPMG, 36 nodal officers from State and UTs and 15 nodal officers from Central Ministries came together to ensure the successful conduct of NeSDA 2021.

Grouping

- NeSDA has followed the Good Governance Index 2021 grouping of the States and UTs.
- North-East and Hill States make up the first group while Union Territories make up the second group.
- The remaining states of India have been classified into two states as *Remaining States Group* A and *Remaining States Group B*.

E-Governance

- Increase in e-Service Delivery
- Rise in use of Integrated / Centralized Portals for delivery of e-Services
- Improvement across assessment parameter scores.

Ranking

- Among the Services Portals for North-East and Hill States, the highest-ranking states of Meghalaya and Tripura showed improvement across all six sectors compared to NeSDA2019.
- In the Union Territories category, Jammu & Kashmir was assessed for the first time in NeSDA 2021 and scored the highest amongst all UTs for six sectors. Among the Remaining States, the overall score of Tamil Nadu increased the most in 2021 compared to 2019.
- Andhra Pradesh, Kerala, Punjab, Goa, and Odisha also improved the compliance of their Services Portals by 100%.

• Punjab, Tamil Nadu, and Rajasthan are the leading states with compliance of more than 75% across all parameters for their Services Portals.

e- Vidhan System

In News

A delegation of MLAs from Gujarat visited the Uttar Pradesh Legislative Assembly to learn about the novel e-Vidhan system for paperless proceedings that has been recently adopted by the UPstate assembly.

NeVA

- The National e-Vidhan Application (NeVA) is a system for digitising the legislative bodies of all Indian states and the Parliament through a single platform on which house proceedings, starred/unstarred questions and answers, committee reports etc. will be available.
- Nagaland became the first state to implement NeVA, in March this year.
- The NeVA system has been developed to make all the work and data related to legislative bodies available online for the use of both citizens and the members of Assemblies. It includes a website and a mobile app.
- A digital platform, a portal that not only gives the necessary technological boost to our parliamentary system, but also works to connect all the democratic units of the country.

Benefits

- This has been done for streamlining information related to various state assemblies, and to eliminate the use of paper in day-to-day functioning. Its website states: "Several thousand tons of papers would be saved, which in turn would help in saving lakhs of trees annually".
- Himachal Pradesh's Legislative Assembly implemented the pilot project of NeVA in 2014, where touchscreen devices replaced paper at the tables of the MLAs.

Challenges

- Access, particularly for legislators representing rural constituencies, to devices and reliable internet and electricity was an issue.
- In its 2020 report, it said lack of training and heightened concerns over security are some more recent issues in the road to digitisation.

No ads promoting online betting

In News

Ministry of Information and Broadcasting has today issued an advisory to print, electronic and digital media to refrain from advertising online betting platforms.

Why this advisory?

- The advisory comes in light of instances of a number of advertisements of online betting websites/platforms appearing in print, electronic, social and online media.
- The advisory has been issued in larger public interest, and it has advised the print and electronic media to refrain from publishing advertisements of online betting platforms.
- It has also advised the online and social media, including the online advertisement intermediaries and publishers, to not display such advertisements in India or target such advertisements towards the Indian audience.

Betting & Gambling

- Betting and gambling, illegal in most parts of the country, pose significant financial and socio-economic risk for the consumers, especially youth and children, the advisory states. It has further added that these advertisements on online betting have the effect of promoting this largely prohibited activity.
- "The advertisements of online betting are misleading, and do not appear to be in strict conformity with the Consumer Protection Act 2019, Advertising Code under the Cable Television Networks Regulation Act, 1995, and advertisement norms under the Norms of Journalistic Conduct laid down by the Press Council of India under the Press Council Act, 1978".

First National Conference of Chief Secretaries

In News

- Prime Minister Shri Narendra Modi will chair the First National Conference of Chief Secretaries at HPCA Stadium in Dharamshala, Himachal Pradesh on 16th and 17th June, 2022.
- It will be a significant step towards further strengthening the partnership between the Centre and the State Governments.

About Conference

- The Conference will emphasise on evolution and implementation of a common development agenda and blueprint for cohesive action to achieve the aspirations of the people.
- It will focus on the rapid and sustained economic growth in partnership with the States.

Three themes have been identified for detailed deliberations in the Conference:

- Implementation of the National Education Policy;
- Urban governance; and
- Crop diversification and achieving self-sufficiency in oilseeds, pulses and other agri-commodities.
- There would be a session on **Aspirational Districts Programme** which would deliberate upon the achievements made so far, with successful case studies including on data based governance, presented by the young Collectors in specific districts.
- There would be a special session on 'Azadi ka Amrit Mahotsav: Roadmap to 2047' and four additional thematic sessions on Reducing Compliance Burden & Decriminalization of Minor Offences for Ease of Doing Business; Centre – State Coordination for achieving saturation coverage of schemes and ensuring last mile delivery; Transforming India's infrastructure through PM Gati Shakti; and Capacity building: Implementation of iGOT - Mission Karmayogi.

New orders on MGNREGA workers

In News

The Peoples' Action for Employment Guarantee (PAEG) has opposed the rural development ministry's order discontinuing manual attendance at Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) scheme worksites with more than 20 workers and replacing it with the National Mobile Monitoring System (NMMS) app.

Issues

• The Ministry's order of manual attendance is in violation of the NREGA law and also flagged a series of technical and sociological issues with the app.

- Section 15 Schedule 1 lays down rules about the muster rolls clearly says that the muster roll must be accessible to the workers on demand all day during all working hours. If The muster roll is available only digitally, access will be limited.
- The app discourages women from being mates which fundamentally undermines the Ministry's own repeated push towards encouraging women workers as NREGA mates.
- The job of a mate is to see the work of the workers working in his workplace. To make daily attendance of labourers, to see who came and who did not.
- Lack of access to digital devices: Having a smartphone is now mandatory for mates to record attendance on the NMMS. However, many women from poorer households don't have access to smartphones.
- Language issues: The app has been designed completely in English And there is no technical help provided to redress problems.

NMMS

- The NMMS App permits taking real-time attendance of workers at Mahatma Gandhi NREGS worksites along with geotagged photographs, which will increase citizen oversight of the programme besides potentially enabling processing payments faster.
- Area Officer Monitoring App facilitates them to record their findings online along with time-stamped and gocoordinate tagged photographs for all the schemes of Deptt of Rural Development- Mahatma Gandhi NREGS, PMAYG, PMGSY.
- This would also enable not only better record keeping of inspections by field and supervisory officials but also facilitate analysis of the findings for better programme implementation.

Coalition for Disaster Resilient Infrastructure (CDRI)

In News

The Union Cabinet chaired by the Prime Minister Shri Narendra Modi has approved the categorization of the Coalition for Disaster Resilient Infrastructure (CDRI) as an 'International Organization'.

Significance

- It will provide it an independent and international legal persona so that it can efficiently and effectively carry out its functions internationally.
- Deputing experts to other countries, that are particularly vulnerable to disaster risk and / or require support for post disaster recovery and also bringing in experts from member countries to India, for similar purposes;
- Deploying funds globally and receive contributions from member countries, for CDRI activities;
- Making available technical expertise to assist countries to develop resilient infrastructure in accordance with their disaster and climate risks and resources;
- Imparting assistance to countries in adopting appropriate risk governance arrangements and strategies for resilient infrastructure;
- Rendering all possible support to member countries in upgrading their systems to ensure disaster and climate resilience of existing and future infrastructure, while aligning with the Sustainable Development Goals (SDGs), the Paris Climate Agreement and the Sendai Framework for Disaster Risk Reduction;
- Providing Indian scientific and technical institution as well as infrastructure developers an opportunity to interact with global experts.

CDRI

• The CDRI was launched by the Hon'ble Prime Minister of India during the United Nations Climate Action Summit on the 23rd September, 2019, at New York.

- It is the second major global initiative launched by the Government of India and is a demonstration of India's leadership role in climate change and disaster resilience matters, globally.
- CDRI is a global partnership of National Governments, UN agencies and programmes, multilateral development banks and financing mechanisms, the private sector, academic and knowledge institutions that aims to promote the resilience of infrastructure systems to climate and disaster risks, thereby ensuring sustainable development.
- On 28th August, 2019, the Cabinet had approved the setting up of CDRI with its Secretariat in New Delhi along with a support of Rs. 480 crore to CDRI.

Election to the Office of the Vice-President of India, 2022

In News

The term of office of Shri M. Venkaiah Naidu, Vice-President of India, is ending on 10th August, 2022.

Procedure for Election

- As per **Article 68** of the Constitution of India, an election to fill the vacancy caused by the expiration of the term of office of the outgoing Vice-President is required to be completed before the expiration of the term.
- Article 324 of the Constitution read with the Presidential and Vice-Presidential Elections Act, 1952 and the Presidential and Vice-Presidential Elections Rules, 1974, vests the superintendence, direction and control of the conduct of election to the office of the Vice-President of India in the Election Commission of India.
- The Election Commission is mandated to ensure that the election to the office of the Vice-President of India must be a free and fair election and the Commission is taking all necessary steps for discharging its constitutional responsibility.
- As per Article 66 of the Constitution of India, the Vice-President is elected by the members of the Electoral College consisting of the members of both Houses of Parliament in accordance with the system of proportional representation by means of the single transferable vote.
- The Electoral College consists of:
 - o 233 elected members of Rajya Sabha,
 - \circ 12 nominated members of Rajya Sabha, and
 - o 543 elected members of Lok Sabha.
- Electoral College comprises of a total of 788 members of both Houses of Parliament. Since, all the electors are members of both Houses of Parliament, the value of vote of each Member of Parliament would be same i.e. 1 (one).

Proportional Representation System

- Article 66 (1) of the Constitution provides that the election shall be held in accordance with the system of Proportional Representation by means of the single transferable vote and the voting at such election shall be by secret ballot.
- In this system, the elector has to mark preferences against the names of the candidates.
- Preference can be marked in the international form of Indian numerals, in Roman form, or in the form in any recognised Indian languages.
- Preference has to be marked in figures only and shall not be indicated in words.
- The elector can mark as many preferences as the number of candidates. While the marking of the first preference is compulsory for the ballot paper to be valid, other preferences are optional.

MyGov Gujarat

In News

MyGov Gujarat, the 18th MyGov state instance, has been launched recently.

My Gov Portal

- The citizen centric platform has been launched with 4 key objectives -
- Discussion Forum on Saving rainwater and sharing water saving tips.
- Discussion Forum on Ease of Living through e Governance.
- Poll on Swachhtha Abhiyaan.
- Blogs on Digital Seva Setu.
- The MyGov Gujarat platform shall empower 6.67 crore Gujaratis to contribute even more, towards nation building.
- **MyGov,** the world's largest citizen engagement platform, was launched by Prime Minister Shri Narendra Modi on **26th July 2014** with the idea of bringing the Government closer to the common man.
- MyGov has evolved into a platform that allows citizens to contribute ideas and suggestions and make participative governance a reality.
- MyGov is also present on almost all social media platforms popular with Indian youth, especially from the far-flung corners of our great country; they played a key role during Covid, supporting MyGov.in by disseminating correct and timely information.
- Our homegrown chatbot, MyGov Helpdesk, is extremely popular with young and old alike and is integrated with many govt services including Cowin and recently, the Digilocker app.

Green Energy Open Access

In News

Ministry of Power has notified Electricity (Promoting Renewable Energy Through Green Energy Open Access) Rules, 2022 in order to further accelerate our ambitious renewable energy programmes, with the objective of ensuring access to affordable, reliable, sustainable and green energy for all.

Salient Features

- These rules are notified for promoting generation, purchase and consumption of green energy including the energy from Waste-to-Energy plants.
- The Green Open Access is allowed to any consumer and the limit of Open Access Transaction has been reduced from 1 MW to 100 kW for green energy, to enable small consumers also to purchase renewable power through open access.
- Consumers are entitled to demand supply of Green Power from Discoms. Discoms would be obligated to procure and supply green power to eligible consumers.
- These Rules will also streamline the overall approval process for granting open access.
- Commercial and Industrial consumers are allowed to purchase green power on voluntarily basis.
- Consumers will be given Green Certificates if they consume green power.

Centre sets up MSP panel

In News

The Centre has constituted a high-powered panel under the chairmanship of former agriculture secretary Sanjay Agarwal to make the minimum support price (MSP) mechanism more effective and transparent.

Objectives of the Committee

- It will work for Agri marketing as per the changing requirements of the country to ensure higher value to the farmers through remunerative prices of their produce by taking advantage of the domestic output and export.
- On natural farming: It will suggest programmes and schemes for value chain development, protocol validation and research for future needs and support for area expansion under the Indian Natural Farming System.
- **On crop diversification:** It will look into the mapping of existing cropping patterns of agro-ecological zones of producer and consumer States.
- Review and suggestion on micro irrigation scheme

Need of MSP

- Support farmers from distress sales.
- To procure food grains for public distribution
- To safeguard farmers from market price fluctuations.
- Maintain a healthy supply of food grains in the market thereby helping in the fight against hunger.
- The guaranteed price for the crops and assured markets encourage higher investment and adoption of modern farming practices.

Steps taken by the Government to make online education more conducive

In News

In order to ensure that every student including those residing in rural and educationally backward districts of the country, gets continues access educational, a multi-pronged approach has been adopted by the Dept. of School Education and Literacy, Ministry of Education.

Measures taken by govt.

- **PM e-Vidya** has been started as part of Atma Nirbhar Bharat Abhiyan on 17th May, 2020, which unifies all efforts related to digital/ online / on-air education to enable multi-mode access to education.
- DIKSHA the nation's digital infrastructure for providing quality e-content for school education in states/UTs: and QR coded Energized Textbooks for all grades (one nation, one digital platform)
- One earmarked Swayam Prabha TV channel per class from 1 to 12 (one class, one channel)
- Extensive use of Radio, Community radio and CBSE Podcast- Shiksha Vani
- Special e-content for visually and hearing impaired developed on Digitally Accessible Information System (DAISY) and in sign language on NIOS website/ YouTube
- Where the digital facility (mobile device/DTH television) is not available, Ministry of Education has taken many initiatives like Community Radio Stations and a podcast called Shiksha Vani of CBSE, Textbooks, worksheet supplied to residence of learners, Handbook on 21st Century Skills and community/mohalla classes are organized.
- **PRAGYATA guidelines** were issued to the States/UTs to facilitate continued education through various modes.
- The guidelines inter-alia include situation where internet connectivity is not available or available with very less bandwidth, resources are shared through various platforms like television, radio etc. that do not depend on internet.
- The Ministry has undertaken a proactive initiative, named, 'MANODARPAN' covering a wide range of activities to provide psychosocial support to students, teachers and families for Mental Health and Emotional Wellbeing during the COVID outbreak and beyond.

Flag Code of India 2022

In News

The Centre is encouraging citizens to hoist the national flag on their houses between August 13 and 15 as part of the Har Ghar Tiranga campaign.

Har Ghar Tiranga

- It is a campaign under the aegis of Azadi Ka Amrit Mahotsav to encourage people to bring the Tiranga home and to hoist it to mark the 75th year of India's independence. (people are encouraged to hoist a flag in their home from 13 to 15th August)
- Art 51A(a) To abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem.

Flag Code of India

- The Flag Code of India is a set of laws and conventions concerning the use, display, and hoisting of the Indian national flag in the country.
- It was brought into effect on January 26, 2002.
- It states that a member of the public, private organisation, or educational institute is allowed to hoist the national flag on all days and occasions, ceremonial or otherwise, consistent with the dignity and honour of the flag.
- The code has been divided into three parts.
- The first part contains a general description of the national flag.
- The second part talks about the display of the flag by members of the public, private organisations, and other institutions.
- The third part is about the display of the national flag by central and state governments, and their organisations/agencies.
- On July 20, 2022, the Centre amended the Flag Code of India, allowing the national flag to be flown both in the day and at night if it is displayed in the open or on the house of a member of the public. Earlier, the tricolour could be hoisted only between sunrise and sunset.

Private players can use drones for delivery purposes

In News

Private players are free to use drones for delivery purposes subject to compliance with Drone Rules, 2021.

Drones Rules 2021

- Every drone, except for those meant for research, development and testing purposes, is required to be registered and should have a Unique Identification Number (UIN).
- An airspace map of the country segregating the entire airspace into red, yellow and green zones is available on the digital sky platform. Operation of drones in red and yellow zones is subject to the approval of the Central Government and the concerned Air Traffic Control (ATC) authority respectively. No approval is required for operation of drones in green zones.
- The State Government, the Union Territory Administration and Law enforcement agencies have been empowered under the Rules to declare a temporary red zone for a specified period.

- Drones are required to have the necessary type certification issued by Directorate General of Civil Aviation (DGCA). No type certification is however required in case of nano drones (up to 250 gram all-up weight) and model drones made for research and recreation purpose.
- The owner and operators of drones are required to furnish the necessary personal details including their Indian passport number etc. for issuance of any registration or licence.
- **Rule 17** of the Drone Rules, 2021, lays down the provision of transfer of drone to another person by way of sale, lease, gift or any other mode, after providing requisite details of the transferor, transferee and unique identification number of the drone on the digital sky platform along with the applicable fees.
- Authorisation of Remote Pilot Training Organisations (RPTO) will be done by DGCA within specified time limits.

PLI Scheme

- The scheme provides for an incentive of Rs 120 crores, spread over three financial years.
- The PLI rate is 20% of the value addition over three financial years. PLI for a manufacturer shall be capped at 25% of total annual outlay.

Benefits of Drones

- Drones offer tremendous benefits to almost all sectors of the economy.
- These include agriculture, vaccine delivery, surveillance, search and rescue, transportation, mapping, defence and law enforcement to name a few.
- The Government is utilising services of drone service providers for vaccine delivery, inspection of oil pipelines and power transmission lines, anti-locust operations, agricultural spraying, survey of mines, land mapping under SVAMITVA scheme for issuance of digital property cards, etc.
- Many of these have been in remote areas of the country.

News E-waste rules

In News

Government has proposed a new framework for regulating e-waste in India that may upset informal sectors.

E-waste

E-Waste refers to all items of electronic and electrical equipment (EEE) and its parts that have been discarded by their owner as waste without the intent of re-use. India is the third-largest e-waste generator in the world after China and the USA (Global E-waste Monitor 2020).

Status of E-waste in India

- One of the fastest-growing waste streams in the world
- 95% of e-wastein India is recycled by the informal sector

Concerns

- Under E-Waste Management Rules 2016, it is mandatory for the organization to comply with the Extended producer responsibility of recycling e-waste. Complying with that, most firms outsourced recycling to organizations called Producer Responsibility Organization (PRO) (CPCB has registered 74 PROs)
- In May this year, Environment Ministry issued a draft notification that does away with PRO and dismantlers and vests all responsibility of recycling with authorized recyclers, only a handful of whom exist in India.
- Now, Authorized Recyclers will source a quantity of waste, recycle them and generate electronic certificates. Companies can buy these certificates equivalent to their annual committed target and thus do not have to be involved with engaging PROs and dismantlers.

Benefits

- Streamline and standardize the system
- Introduce an Electronic management system that would track the material that went in for recycling
- Make recycling remunerative: Currently, the entire system isn't remunerative for recyclers, who actually do the job of recycling.
- Increase reliability: The current system managed by PRO isn't always reliable as there have been several instances of double-counting (where the same articles recycled once for one company are credited into the account for multiple companies).

E-Court Mission Mode Project

In News

As part of the National eGovernance Plan, the eCourt project is an integrated Mission Mode Project under implementation since 2007 for ICT development of the Indian Judiciary.

e-Court Project

- The e-Court Integrated Mission Mode Project was launched with the objective of improving access to justice using technology.
- The Phase I of eCourts was concluded in 2015 in which 14,249 Court sites were computerized.
- Under Phase II, 18,735 District & Subordinate courts have been computerised so far.
- Using National Judicial Data Grid (NJDG), developed under the eCourts Project with elastic search technology, lawyers and litigants can access case status information of 20.86 crore cases and more than 18.02 crore orders/judgments.
- Case Information Software (CIS) based on customized Free and Open-Source Software (FOSS) has been developed.
- **7 platforms for Citizen centric services** or service delivery channels for providing real time information on case status, cause lists, judgements etc. to lawyers/litigants.
- An **eFiling** system (version 3.0) has been rolled out for the electronic filing of legal papers with advanced features like online submission of Vakalatnama, eSigning, online video recording of oath, online payment, filing of multiple IAs/application, Portfolio Management and bilingual mode etc.
- **eSewa Kendras:** To make justice delivery inclusive and to mitigate handicaps caused by digital divide, eSewa Kendras have been rolled out to provide e-filing services to lawyers and litigants.
- A 'Judgment & Order Search' portal has been inaugurated for the convenience of its stakeholders in searching judgments easily by providing a repository for Judgments and Final Orders of the High Courts.
- Secure, Scalable & Sugamya Website as a Service (S3WAAS) Website: A new divyang friendly website for eCommittee, based on S3WaaS platform is live in 13 regional languages including English & Hindi.
- Using **SMS pull facility** stakeholders can receive case status by sending sixteen characters CNR number of a case to the number 97668-99899
- **SMS push facility** is provided to stakeholders like litigants and advocates to get SMS on the occurrence of each event in a case like filing, registration, adjournment, scrutiny, listing, transfer of the case, disposal, uploading of orders etc., on their mobile registered with the court.
- Service desk to be set up for internal stakeholders to get the relevant information.

Chhattisgarh govt implements extension of panchayat rights in scheduled areas

In News

The Chhattisgarh government implemented the extension of panchayat rights in scheduled areas — PESA Rule-2022 on World Tribal Day.

PESA Rules 2022

- Chhattisgarh's PESA Rules mandate that 50% of the members of the Gram Sabha are from Tribal communities (of which 25% will be female members). For PESA Act to be effective, it is important that Rules be framed by the states.
- Out of 10 states (Andhra, Telangana, Chhattisgarh, Gujarat, HP, Jharkhand, MP, Maharastra, Odisha, and Rajasthan) who have notified 5th Schedule Areas, only 7 states (including Chhattisgarh and Gujarat) have notified Rules to implement the PESA Act.
- States coming in the 6th Scheduled are: Assam, Meghalaya, Tripura, and Mizoram (remember as 'AMTM').

PESA Act, 1996

- It extends the provisions of Panchayats (Part IX of the constitution) to the Fifth Schedule Areas. These areas have a huge tribal population.
- It ensures self-governmance through Gram Sabhas (village assemblies) for people living in the Scheduled Areas.
- The 73rd constitutional amendment (19992) gave shape to a three-tier Panchayati Raj Institution, however, its application to the scheduled and tribal areas under Article 243(M) was restricted.
- It was after the **Bhuria Committee** recommendations in 1995 that PESA Act 1996 came into existence.

Powers of Gram Sabha under PESA Act

- Consultation before the land acquisition, prevent land alienation, power to enforce prohibition, prior approval of all developmental projects and control over tribal sub-plan, maintenance of cultural identity and tradition, control over schemes affecting the tribals etc.
- Judicial powers: Dispute resolution as per traditional laws and customs: the collective resolution of disputes on the basis of customs, traditional laws and religious beliefs of tribal areas.
- **Ownership and management of natural resources**: E.g. water, forest, common lands ('Jal, Jangal, and Zameen'), minor forest produce, minor minerals, etc.
- **Minor Forest Produce:** It has been defined under FRA 2006, as those including all nontimber forest produce of plant origin, including bamboo, brushwood, stumps, cane, tussar, etc.

National e-Vidhan Application (NeVA) Project

In News

'One Nation-One Application' is being implemented using the National eVidhan Application (NeVA).

About NeVA

- Paperless Assembly or e-Assembly is a concept involving of electronic means to facilitate the work of Assembly.
- It enables automation of entire law making process, tracking of decisions and documents, sharing of information.
- NeVA aims to bring all the legislatures of the country together, in one platform thereby creating a massive data depository without having the complexity of multiple applications.

• NeVA (previously known as e-Vidhan) is a Mission Mode Project (MMP) under the Digital India Programme, under the Ministry of Parliamentary Affairs (MoPA).

e-Vidhan Project

- e-Vidhan is a Mission Mode Project (MMP) included in Digital India Programme and Ministry of Parliamentary Affairs (MoPA) is the 'Nodal Ministry' for its implementation in all the 31 States/ UTs with Legislatures.
- The total project cost of the project is over 738 crores and funding of NeVA is on the pattern of Central Sponsored Scheme i.e. 60:40; and 90:10 for North East & hilly States and 100% for UTs.
- The funding for e-Vidhan is provided by the MoPA and technical support by Ministry of Electronics and Information Technology (MeitY).

Government notifies Battery Waste Management Rules, 2022

In News

Ministry of Environment, Forest and Climate Change, Government of India published the Battery Waste Management Rules to ensure environmentally sound management of waste batteries.

Key Provisions

- These regulations cover all types of batteries such as electric vehicle batteries, portable batteries, automotive batteries and industrial batteries.
- Based on the concept of Extended Manufacturer Responsibility (EPR), battery manufacturers (including importers) are responsible for the collection and recycling/renewal of waste batteries and the use of waste materials in new batteries.
- The EPR mandates the collection of all waste batteries and sends them for recycling/renewal, and prohibits their disposal in landfills and incineration.
- These rules will make it possible to set up a centralized online portal for exchange of EPR certificates between producers and recyclers/renewers to meet the obligations of the producers.
- The rules promote setting up of new industries and entrepreneurship in collection and recycling/refurbishment of waste batteries.
- Mandating the minimum percentage of recovery of materials from waste batteries under the rules will bring new technologies and investment in recycling and refurbishment industry and create new business opportunities.

Supreme Court Dismisses Plea to Notify Sanskrit as National Language

In News

The Supreme Court dismissed a Public Interest Litigation (PIL) seeking directions to notify Sanskrit as the national language.

SC observation

- SC said that the issue was in the realm of policy, requiring constitutional amendments which entailed detailed discussion in the Parliament and not in the realm of judiciary.
- The petitioner's lawyer invoked Sanskrit as a "mother language" from which other tongues took inspiration.
- He repeatedly invoked oriental scholar Sir William Jones and his study of the ancient language.

Status of Hindi

- Under Article 343 of the Constitution, the official language of the Union shall be Hindi in Devanagari
- English would continue to be used for a period of 15 years.
- Official Languages Act, 1963 was passed in anticipation of the expiry of the 15-year period during which the Constitution originally allowed the use of English for official purposes.
- Article 351 (Union government to promote the use of Hindi)

Sir William Jones

- William Jones was an SC judge as well as a linguist and proposed that there is an existence of a relationship between European and Indo-Aryan languages, which he coined Indo-European.
- Established the Asiatic Society of Bengal in the year 1784.
- Jones' was the first to suggest that Sanskrit, Greek and Latin languages had a common root.
- He also suggested that Sanskrit 'was introduced to India by conquerors from other kingdoms in some very remote age' displacing 'the pure Hindi' of north India

National Disaster Management Authority

In News

- The National Disaster Management Authority celebrated its 18th Formation Day in New Delhi.
- The vision of NDMA is "To build a safe and disaster resilient India by developing a holistic, proactive, multidisaster oriented and technology - driven strategy through a culture of prevention, mitigation, preparedness and response".
- The theme for this year's Foundation Day was "Volunteerism in Disaster Management".

NDMA

- The National Disaster Management Authority (NDMA) is India's apex statutory body for disaster management.
- The Prime Minister is its chairperson and it has nine other members. One of the nine members is designated as Vice-Chairperson.
- The primary responsibility for the management of disaster rests with the State Government concerned. However, the National Policy on Disaster Management puts in place an enabling environment for all i.e., the Centre, state and district.
- India is also a signatory to the Sendai Framework for Disaster Risk Reduction (SFDRR) that sets targets for disaster management.
- The National Disaster Management Authority (NDMA) has been established under the Chairmanship of the Prime Minister and National Executive Committee (NEC) of Secretaries has been created to assist the NDMA in the performance of its functions.
- At the State level, a State Disaster Management Authority has been created under the Chairmanship of Chief Minister of the State, which has been assisted by a State Executive Committee.
- At the District level, District Disaster Management Authorities have been created.

Multipurpose PACS in every Panchayat

In News

The Ministry of Cooperation and the National Dairy Development Board (NDDB) have planned a Multipurpose PACS in every Panchayat which will do the work of distribution of Dairy, FPO, Agriculture and Gas Production.

About PACS

- It is a village-level institution that works directly with rural residents. It encourages agriculturists to save, accepts deposits from them, makes loans to deserving borrowers, and collects repayments.
- PACS are the lowest unit in a three-tier structure: The other two tiers State Cooperative Banks (StCB) and District Central Cooperative Banks (DCCB) — have already been automated by the NABARD and brought on the Common Banking Software (CBS).
- There are only 65,000 active PACS in the country at present.
- PACS will carry out activities like the sale of gas and petrol and the storage and marketing of dairy and farm products with an aim to alleviate poverty and empower women.

Hijab ban

In News

The Supreme Court recently delivered a split verdict on whether Muslim students should shed their hijabs at their school gates.

Justice H. Gupta upheld Karnataka's prohibitive government order

- Apparent symbols of religious belief: cannot be worn to secular schools maintained from State funds.
- Secularity' meant uniformity: manifested by parity among students in terms of uniformity.
- Not amount to the denial of education: However, if the students were refusing to attend classes, it would not amount to the denial of education by the state.

Justice Sudhanshu Dhulia

- Secularity: meant tolerance to "diversity".
- Wearing or not wearing a hijab to school: It is ultimately a matter of choice (Article 19(1)(a))
- Asking the girls to take off their hijab:
- It is an invasion of their privacy (Article 21)
- It is an attack on their dignity
- It is a denial to them of secular education.

Article 25

- It does not speak of Essential Religious Practice.
- If the belief is sincere, and it harms no one, there can be no justifiable reasons for banning the hijab in a classroom.

Cabinet okays amendments in Multi-State Cooperative Societies Act

In News

The Union Cabinet recently approved amendments to the Multi-State Cooperative Societies Act to bring transparency in the sector and reform the electoral process.

Key Amendments

- The Bill will incorporate the provisions of the 97th Constitutional Amendment.
- The amendments have been brought to improve governance, reform the electoral process, strengthen monitoring mechanisms and enhance transparency and accountability.
- The Bill also seeks to improve the composition of board and ensure financial discipline, besides enabling the raising of funds in the multi-state cooperative societies.

- Enabling the raising of funds in the multi-state cooperative societies.
- Setting up of:
 - \circ $\,$ Cooperative Election Authority $\,$
 - Cooperative Information Officer
 - $\circ \ \ \, {\rm Cooperative \ Ombudsman}$

The amendments have been introduced to

- Improve governance
- Reform the electoral process
- Strengthen monitoring mechanisms
- Enhance transparency and accountability.

National Credit Framework (NCrF)

In News

Union Minister of Education and Minister of Skill Development & Entrepreneurship Shri Dharmendra Pradhan launched the draft of National Credit Framework (NCrF) for public consultation.

Significance

- The Government of India has developed the National Credit Framework (NCrF) to enable the integration of academic and vocational domains to ensure flexibility and mobility between the two.
- NCrF would be a game changer by opening numerous options for further progression of students and intermingling of school and higher education with vocational education and experiential learning, thus mainstreaming skilling and vocational education.
- NCrFwill also enable students who have dropped out of the mainstream education to re-enter the education ecosystem.
- National Credit Framework is an umbrella framework for skilling, re-skilling, up-skilling, accreditation & evaluation encompassing our people in educational & skilling institutions and workforce.

About NCRF

- NCrF will seamlessly integrate the credits earned through school education, higher education and vocational and skill education by encompassing the National Higher Education Qualification Framework (NHEQF), National Skills Qualification Framework (NSQF) and National School Education Qualification Framework (NSEQF).
- It also supports educational acceleration for students with gifted learning abilities and Recognition of Prior Learning for the workforce that has acquired knowledge and skills informally through the traditional family inheritance, work experience or other methods.
- NCrF will ensure Flexibility in the duration of study/ courses through provisions of multiple entries and exit/work options as well as pave the path for creditisation of all learning hours, including academic, vocational and experiential learning. It will also give the provision for lifelong learning – any time anywhere learning: It will also help students by:
- Establishing multidisciplinary and holistic education with flexible curricula
- Removing the hard distinction between the education stream and making study choices respectful, allowing for more than one award in the same period
- Removing the distinction between arts, science, social sciences, commerce, etc
- Giving student credits for every academic/ skill/ experience
- NCrF will bring about a unification of higher education institutions to promote multidisciplinary education, creating a diverse and rich students knowledge base.

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It will also help in:

- Promoting stronger collaboration between institutions
- Making credit mechanism simpler and uniform
- Increasing focus on research and innovation
- Promoting digital learning, blended learning, and open distance learning
- Leveraging the institutional infrastructure

Chintan Shivir

In News

The Union Ministry of Home Affairs (MHA) conducted a two-day "chintan shivir" in Haryana's Faridabad city with Home Ministers of states in attendance.

Chintan Shivir

- The event Chintan Shivir of Home Ministers aims to provide a national perspective to the formation of policies related to internal security of India.
- It aims to boost synergy in planning and coordination between various stakeholders at the national and state levels.
- It focused on topics such as modernization of police forces, management of cybercrime, the use of Information Technology in the criminal justice system, land border management, coastal security, women safety, drug trafficking etc.
- The event was organized to create an action plan for the implementation of Vision 2047 and Panch Pran, which were announced by Prime Minister Modi.

One Nation one Uniform

- While addressing the Chintan Shivir, Prime Minister Narendra Modi pitched the idea of 'one nation, one police uniform' to promote a single uniform for all police in India.
- Currently, each state has the liberty to have its own number or insignia.
- Presently, most of the police forces adorn different shades of khaki-coloured uniforms. A few states like Kolkata, Tamil Nadu and Goa have adopted white uniform.
- The vision of "**one nation, one uniform**" is to create common identity for law enforcement in India, making it easier for the citizens to recognize police personnel anywhere in the country.
- **Maharashtra:** In February 2018, in a bid to prevent colour variation in the uniform of its personnel, the Maharashtra police had decided to provide dope-dyed khaki fabric for its staff.

Guidelines for Uplinking and Downlinking of Satellite Television Channels in India, 2022

In News

The Union Cabinet has approved the "Guidelines for Uplinking and Downlinking of Television Channels in India, 2022".

Key Guidelines

- Ease issue of permissions to the companies/ LLPs registered in India for Uplinking and Downlinking of TV Channels
- Setting up of Teleports/ Teleport Hubs
- Use of Digital Satellite News Gathering (DSNG)/ Satellite News Gathering (SNG)/ Electronic News Gathering (ENG) systems

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- Uplinking by Indian News agencies
- Temporary uplinking of a live event
- Companies/LLPs having permission to uplink and downlink a channel: They may undertake public service broadcasting (except where it may not be feasible) for a minimum period of 30 mins in a day on themes of national importance and of social relevance.
- The TV Channels uplinking in frequency bands other than C band are mandatorily required to encrypt their signals.
- Net worth requirement for Companies/LLPs holding permissions, to be as per the Guidelines at the time of renewals.
- Security deposit: To ensure payment of dues.

Importance

- Only prior registration of events to be telecast live would be necessary.
- No permission for live telecast of events.
- No prior permission for change of language or conversion of mode of transmission from Standard Definition (SD) to High Definition (HD) or vice versa
- In case of emergency, for a company/ LLP with only two Directors/ Partners, a Director/ Partner can be changed
- Subject to security clearance post such appointment.
- A company/LLP can use News gathering equipment other than DSNG, such as optic fiber, Bag back, mobile, etc.
- No separate permission would be necessary.

Ease of Doing Business:

- Specific timelines for grant for permission
- Limited Liability Partnership (LLP) entities can also seek permission
- A news agency can get permission for a 5 year period(one year at present)
- A channel can be uplinked by using facilities of more than one teleport/satellite(one teleport/satellite at present)

25th National Conference on e-Governance (NCeG)

In News

The 25th National Conference on e-Governance will be organized on November 26 and 27 this year.

About NCeG

- National Conference on e-Governance (NCeG) will be held in Katra a city in the union territory of Jammu and Kashmir.
- It will be jointly organized by the Department of Administrative Reforms and Public Grievances (DARPG) and the Union Ministry of Electronics and Information Technology (MeitY) in collaboration with the Jammu and Kashmir Government.
- The theme for this year's NCeG is "Bringing Citizens, Industry and Government Closer".
- The conference will be inaugurated on the occasion of Constitution Day (November 26), commemorates the adoption of the Indian Constitution.
- During the conference, National Awards for e-Governance (NAeG) will be conferred under five categories of the NAeG Scheme to 18 e-governance initiatives at the central, state and district levels, academic and research institutes and public sector undertakings (PSUs).

- This year's NCeG will centre around topics that will shape digital governance in the future. It will focus on technologies that will enhance government services and make India a digitally empowered society and knowledge economy.
- The conference would provide the opportunity for civil servants and industrial experts to demonstrate successful interventions using e-governance in improving the delivery of public services.

Scheme for madrasas, minority institutes

In News

The Parliamentary Standing Committee on Social Justice and Empowerment recently pulled up the Union government for the delay in approving the continuation of the Scheme for Providing Education to Madrasas/Minorities (SPEMM), which provides for financial assistance to madrasas and minority institutes.

Scheme for Providing Quality Education in Madrasas (SPQEM)

- It seeks to bring about qualitative improvement in Madrasas to enable Muslim children attain standards of the National education system in formal education subjects.
- To provide financial assistance to traditional institutions to encourage them to introduce Science, Mathematics, Social Studies, Hindi and English in their curriculum to attain proficiency
- To strengthen State Madrasa Boards opting for assistance by enabling them to monitor the Madrasa modernization programme.
- To provide quality components in Madrasas such as remedial teaching, assessment and enhancement of learning outcomes, Rashtriya Avishkar Abhiyan etc.

Infrastructure Development of Minority Institutes (IDMI)

- Infrastructure Development of Minority Institutes (IDMI) has been operationalised to augment Infrastructure in Private Aided/Unaided Minority Schools/Institutions in order to enhance the quality of education to minority children.
- To facilitate education of minorities by augmenting and strengthening school infrastructure in Minority Institutions (elementary/ secondary/senior secondary schools) in order to expand the facilities for formal education to children of minority communities.
- To encourage educational facilities for girls, children with special needs and those who are most deprived educationally amongst the minorities.

Social Progress Index (SPI)

In News

Economic Advisory Council to Prime Minister (EAC-PM) will release the Social Progress Index (SPI) for states and districts of India.

About the Index

- The report has been prepared by Institute for Competitiveness, headed by Dr Amit Kapoor and the Social Progress Imperative, headed by Michael Green and was mandated by Economic Advisory Council to the Prime Minister of India.
- SPI is a comprehensive tool intended to be a holistic measure of the Social Progress made by the country at the national and sub-national levels.

- Understanding that the social progress of citizens is key to sustaining economic growth in the long run, the index complements the conventional measures of economic growth and development.
- SPI assesses the performance of states and districts on three dimensions of social progress: Basic Human Needs, Foundations of Wellbeing, and Opportunity. Within each dimension, there are four components.
- The dimension of Basic Human Needs assesses the performance of states and districts in terms of Nutrition and Basic Medical Care, Water and Sanitation, Personal Safety and Shelter.
- The dimension of Foundations of Wellbeing evaluates the progress made by the country across the components of Access to Basic Knowledge, Access to Information and Communication, Health and Wellness, and Environmental Quality.
- The dimension of Opportunity focuses on aspects of Personal Rights, Personal Freedom and Choice, Inclusiveness, and Access to Advanced Education.
- The report aims to provide a systematic account of the social progress made at all levels in the country.
- The report also sheds light on the achievements of the districts that have performed well on the index and the role of the states in achieving social progress.

25th Eastern Zonal Council meeting

In News

Union Home and Cooperation Minister Amit Shah presided over the 25th Eastern Zonal Council meeting in Kolkata recently.

Zonal Councils

- They are statutory bodies established by an act of parliament (State reorganization Act of 1956)
- The idea of creation of Zonal Councils was mooted by the first Prime Minister of India, Pandit Jawahar Lal Nehru in 1956 when during the course of debate on the report of the States Reorganisation Commission.
- The home minister of central government is the common chairman of all the zonal councils
- Other members include: The Chief Ministers of the States included in each zone act as Vice-Chairman of the Zonal Council for that zone by rotation, each holding office for a period of one year at a time, Chief Minister and two other Ministers as nominated by the Governor from each of the States and two members from Union Territories included in the zone.
- At present there are six zonal councils- Northern, Central, Eastern, Western, Southern and North-Eastern

Aims/Objectives

- Any matter of common interest in the field of economic and social planning;
- Any matter concerning border disputes, linguistic minorities or inter-State transport;
- Any matter connected with or arising out of, the reorganization of the States under the States Reorganisation Act.

Composition Of Zonal Councils

- The Northern Zonal Council, comprising the States of Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab, Rajasthan, National Capital Territory of Delhi and Union Territory of Chandigarh;
- The Central Zonal Council, comprising the States of Chhattisgarh, Uttarakhand, Uttar Pradesh and Madhya Pradesh;
- The Eastern Zonal Council, comprising the States of Bihar, Jharkhand, Orissa, Sikkim and West Bengal;
- The Western Zonal Council, comprising the States of Goa, Gujarat, Maharashtra and the Union Territories of Daman & Diu and Dadra & Nagar Haveli;
- The Southern Zonal Council, comprising the States of Andhra Pradesh, Karnataka, Kerala, Tamil Nadu and the Union Territory of Puducherry.

AVGC Task Force Report

In News

The Animation, Visual Effects, Gaming and Comic (AVGC) Task Force has called for a National AVGC-XR Mission with a budget outlay to be created for integrated promotion & growth of the AVGC sector.

Key Recommendations

Domestic Industry Development for Global Access

- A National AVGC-XR Mission with a budget outlay to be created for integrated promotion & growth of the AVGC sector.
- Launch of a 'Create in India' campaign with exclusive focus on content creation, In India, For India & For World!
- With a goal to make India the global hub for AVGC, institute an International AVGC Platform, along with a Gaming Expo) with focus on FDI, Co-production treaties and Innovation.
- Establish a National Centre of Excellence (COE) for the AVGC sector to become an international reference point across Skilling, Education, Industry Development and Research & Innovation for the AVGC sector. Regional COEs will be instituted in collaboration with the State Governments to provide access to local industries and to promote local talent and content.

Developing Talent ecosystem to realize Demographic Dividends

- Leverage NEP to develop creative thinking with dedicated AVGC course content at school levels, to build foundational skills and to create awareness about AVGC as a career choice.
- Launch AVGC focused UG/ PG courses with standard curriculum and globally recognized degrees. Standardize admission tests for AVGC related courses (viz, MECAT by MESC).
- With an eye on the demand of 20 Lakh skilled professionals in AVGC sector in this decade, augment skilling initiatives for AVGC sector under MESC. Enhance Industry participation to ensure employment opportunities and absorption for students from non-metro cities and NE states.
- Establish AVGC Accelerators and Innovation hubs in academic institutions, on lines of Atal Tinkering Labs.

Enhancing Technology & Financial Viability for Indian AVGC Industry

- Democratize AVGC technologies by promoting subscription-based pricing models for MSME, Start-Ups and institutions.
- Made in India for AVGC technologies through incentive schemes for R&D and IP creation. Evaluate PLI scheme to incentivize AVGC hardware manufacturers.
- Enhanced Ease of Doing Business in AVGC sector i.e tax benefits, import duties, curbing piracy, etc.
- Leverage Start-Up India to provide technical, financial and market access assistance to AVGC entrepreneurs to promote culture of R&D and local IP Creation.

Raising India's soft power through an Inclusive growth

- Establish a dedicated Production Fund for domestic content creation from across India to promote Indian culture & heritage globally. Evaluate Reservation for high-quality indigenous content by broadcasters.
- For an Inclusive India, target skilling and industry outreach for youth in Tier 2 & 3 towns and villages in India. Establish Special incentives for women entrepreneurs in AVGC sector.
- Promote local Children's channels for raising awareness on rich culture and history of India among children and youth
- Establish framework to ensure Child Rights Protection in the digital world

About the Task Force

- The AVGC Task Force was set up under the chairmanship of the Secretary of the Information and Broadcasting Ministry to help realize the full potential of India's AVGC sector by identifying interventions for boosting the domestic capacity that can serve the local and global markets.
- It had key stakeholders from the industry and the government, including members from state governments of Telangana, Karnataka and Maharashtra.

Indian Telegraph (Infrastructure Safety) Rules 2022

In News

The Department of Telecommunications under the Ministry of Communications has formulated the Indian Telegraph (Infrastructure Safety) Rules 2022.

Provisions

- Any person wishes to exercise a legal right to dig or excavate any property which is likely to cause damage to a telegraph infrastructure shall give notice to the licensee, prior to commencement, through common portal.
- The information shall include the name and address of the person exercising the legal, agency details, contact details, date and time of start of the exercise, description and location of the exercise, and the reasons for such dealing.
- The licensee shall, as expeditiously as possible, provide through the common portal, the details of telegraph infrastructure owned/ controlled/ managed by them, falling under/ over/ along the property with which the person intends to deal, alongwith precautionary measures for coordination in avoiding damages to the telegraph infrastructure.
- Excavators/utility asset owners will be given alerts via SMS, email and in-app notification and will also have the facility of 'Click to call' from the app itself.
- The person digging or excavating shall take appropriate action on precautionary measures provided by the licensee.
- Once the asset owner agencies map their underlying assets with GIS coordinates on PM GatiShakti NMP platform, it will also be possible to know the presence of underlying utility assets, at the point of interest, before start of excavation.

Benefits

- Many utilities can be saved from unwanted cuts and wasteful cost towards restoration, thus saving thousands of crores for businesses and associated tax loss to Govt.
- Inconvenience caused to citizens because of frequent breakdown may be reduced due to better synergy between the agencies.

AMPHEX 2023

In News

The biennial Tri-Services Amphibious Exercise, AMPHEX 2023 was conducted at Kakinada, Andhra Pradesh.

AMPHEX 2023

- AMPHEX is aimed at joint training of elements of all three services in various facets of amphibious operations to enhance interoperability and synergy.
- AMPHEX 23 is the first time that the exercise was undertaken at Kakinada, and was the largest ever AMPHEX conducted till date.

- The participating forces undertook complex exercises in all domains of amphibious operations over five days.
- The exercise witnessed the participation of a number of amphibious ships consisting of Large Platform Dock (LPD), Landing Ships and Landing Crafts, Marine Commandos (MARCOS), helicopters and aircraft from the Indian Navy.
- Indian Army participated in the exercise with over 900 troops which included Special Forces, Artillery and Armoured vehicles.

Economy

Mandate for vehicles of M1 Category

In News

The Ministry of Road Transport and Highways has released a mandate for vehicles of M1 category, manufactured after 1st of October 2022, to be fitted with two side torso airbags and two side tube airbags.

Vehicles of MI category:

- This category includes motor vehicles that carry passengers.
- These vehicles have not more than eight seats in addition to the driver's seat.
- The Ministry mandated the driver airbag for M1 category vehicles manufactured on and after 1st July, 2019 to ensure the safety of the driver.
- The inclusion of a front airbag for the person in the front seat other than the driver has been made compulsory with effect from the 1st of January 2022.
- The new rules will enhance the safety of the passengers and prevent the harmful implications of road accidents.

One District One Product' (ODOP) Initiative

In News

A State Conference was held to boost Centre and State collaboration in promoting products under the One District One Product (ODOP) Initiative.

About ODOP

- ODOP is basically a Japanese business development concept, which gained prominence in 1979.
- It is aimed at promoting a competitive and staple product from a specific area to push sales and improve the standard of living of the local population. Over time, it has been replicated in other Asian countries as well.

Green ports and green shipping in India

In News

The progress of green initiatives undertaken for the development of green ports and green shipping, has been reviewed.

About the initiative:

- The development of green ports has been planned under the Maritime India Vision 2030.
- The major objective is to promote a green ecosystem in the maritime sector which is in alignment with the International Maritime Decarbonisation Strategy 2030 of International Maritime Organization and its Green-House Gas Strategy for 2050.
- This will reduce the carbon footprint and ensure sustainable use of ports.
- The major ports of India aims to increase the share of renewable energy to more than 60% by 2030 accompanied by the setting up of solar power plants, availing shore power supply to the vessels through multi-clean fuel adoption within the port.
- In a collective decision, the major ports of India are planning to phase out diesel locomotives at ports.

World Economic Forum's

In News

The Prime Minister delivered a 'State of the World' special address at the World Economic Forum's Davos Agenda via video conferencing.

Mission Life

- LIFE i.e. 'Lifestyle for Environment', is a vision of a resilient and sustainable lifestyle that will come in handy in dealing with the climate crisis and other unpredictable challenges of the future.
- The Prime Minister at COP26 called for making 'Lifestyle for Environment' (LIFE) a global mission.

About WEF

- The World Economic Forum (WEF) is a Swiss nonprofit foundation established in 1971, based in Geneva, Switzerland.
- Recognized by the Swiss authorities as the international institution for public-private cooperation.
- Founder and Executive Chairman: Klaus Schwab.

State of Dam's in India

In News

According to a new Comptroller and Auditor General of India (CAG) report, Gandhi Sagar Dam on Chambal River (Madhya Pradesh) is in need of immediate repair.

Gandhi Sagar Dam

- It is one of the five water reservoirs of national importance.
- Gandhi Sagar Dam was constructed in 1960 to provide drinking water to several districts of Rajasthan and generate 115 megawatts of electricity.
- It has been breached several times in recent years, causing flooding in downstream areas.

India's Position in Dam

- India is ranked third in the world in terms of building large dams.
- Of the over 5,200 large dams built so far, about 1,100 large dams have already reached 50 years of age and some are older than 120 years.
- The number of such dams will increase to 4,400 by 2050.
- This means that 80% of the nation's large dams face the prospect of becoming obsolete as they will be 50 years to over 150 years old.

Need of the Dam Safety

- Safety of dams is also important for safeguarding the huge public investment in this critical physical infrastructure, as also, for ensuring continuity of benefits derived from the dam projects and national water security.
- Indian dams are very old and built according to the rainfall pattern of the past decades. Erratic rainfall in recent years has left them vulnerable.
- But the government is equipping the dams with information systems like rainfall alerts, flood alerts, and preparing emergency action plans to avoid all sorts of mishaps.
- As dams age, soil replaces the water in the reservoirs. Therefore, the storage capacity cannot be claimed to be the same as it was in the 1900s and 1950s.
- **Dam safety bill,2019** provides for surveillance, inspection, operation and maintenance of the specified dam, for prevention of dam failure related disaster, and also makes provision for institutional mechanisms to ensure their safe functioning.

Asian Infrastructure Investment Bank (AIIB)

In News

Recently, former Reserve Bank of India (RBI) governor Urjit Patel has been appointed vice-president of the Beijingbased Asian Infrastructure Investment Bank (AIIB).

About AIIB

- It is a multilateral development bank with a mission to improve social and economic outcomes in Asia.
- It aims to connect people, services and markets that over time will impact the lives of billions and build a better future by investing in sustainable infrastructure and other productive sectors.
- It is established by the AIIB Articles of Agreement (entered into force December 2015) which is a multilateral treaty.
- It is headquartered in Beijing (China) and began its operations in January 2016.

India and AIIB

- The AIIB has approved more loans for India than any other member of the bank.
- China is its biggest shareholder and India is the second-largest.
- The AIIB has funded 28 projects in India amounting to USD6.7 billion.
- It has recently emphasised green projects and supporting public health initiatives during the Covid-19 pandemic, besides infrastructure.
- In October 2021, India applied for loans from the AIIB and Asian Development Bank (ADB) to procure 667 million doses of Covid-19 vaccines with the ADB expected to lend USD1.5 billion and the AIIB around USD500 million, under the ADB's Asia Pacific Vaccine Access Facility (APVAX) initiative.

Sweet Revolution

In News

Recently, the Khadi and Village Industries Commission (KVIC) has launched the country's first Mobile Honey Processing Van at Village in Uttar Pradesh.

Sweet Revolution

- Mobile Honey Processing Van that will process beekeepers' honey at their doorsteps and thus save them the hassle and the cost of taking the honey to processing plants in far off cities for processing.
- This initiative is taken in pursuance of "Sweet Kranti" (Sweet Revolution).
- It is an ambitious initiative of the Government of India for promoting apiculture, popularly known as 'beekeeping'.

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- To provide a booster shot to Sweet Revolution, the government launched the National Beekeeping and Honey Mission in 2020 (under the Ministry of Agriculture and Farmers Welfare).
- It aims to accelerate the production of quality honey and other related products.

Benefits

- The transportation of honey to processing plants is an expensive affair for small farmers and beekeepers.
- To avoid high transportation and processing costs, a majority of beekeepers would sell their raw honey to the agents at their farms themselves at a very low price.
- The Processing Van will reduce the honey extraction and processing cost to the beekeepers.
- This will also eliminate any scope for adulteration of honey as the processing will be done at the doorsteps of the beekeepers and farmers.

Bamboo Shoot Processing and Preservation

In News

A training programme on bamboo shoot processing and preservation was organised by the North East Cane and Bamboo Development Council (NECBDC).

Benefits of bamboo shoots:

- The young bamboo shoots are rich in proteins, carbohydrates, minerals, fibres and are low in fat and sugars.
- They also consist of phytosterols and high content of fibres that are considered for nutraceutical (Natural medicines) properties that opens an avenue of research on such components.
- The shoots are devoid of toxicity and can grow without the fertilisers.
- Bamboo shoots have various health benefits such as they help in digestion, weight loss, cure of cardiovascular diseases and cancer.
- These shoots have antioxidant capacities due to the presence of phenolic compounds.
- The shoots of bamboo are resistant to diseases, insects and climate change.

India – UK Free Trade Agreement Negotiations

In News

The ambitious launch of a free trade agreement negotiations between India and the United Kingdom took place with the objective of doubling the bilateral trade.

Outcomes of the Agreement

- The eventful agreement aims to double the bilateral trade by 2030 and it has been considered as a partnership that is built on shared history and rich culture.
- This free trade agreement has been recognised, so far, as the deepest trade deal.
- The bilateral partners agreed to collaborate on the areas such as the service sectors, innovation and technology.
- There were discussions on transitions from fintech to green-tech and automation to Artificial Intelligence.
- India expects to gain from tariff reduction in labour-intensive sectors such as textiles, leather, jewellery apart from cereals and pharmaceuticals.

Free Trade Agreement:

- A free trade agreement is a pact between two or more countries to reduce trade barriers facilitating imports and exports.
- The goods and services can be brought within the purview of free trade policy.
- It involves trade across international borders with little or no government tariffs, quotas, subsidies or any inhibition in the exchange of goods and services.

Sela Tunnel Project

In News

The final blast for the 980 metres long Sela Tunnel has been conducted by the Border Roads Organisations (BRO).

About the Tunnel

- The Sela tunnel is located in the west Kameng district of Arunachal Pradesh.
- The project is divided into Tunnel 1 and Tunnel 2.
- Tunnel 1 is a 980 metre long single tube tunnel and Tunnel 2 which is a 1555m long twin tube tunnel.
- Tunnel 2 is provided with one bi-lane tube for traffic and one escape tube for emergencies.
- This project also includes the construction of a road that links the two tunnels.

Significance of the tunnel

- The Sela tunnel will be one of the longest tunnels to be constructed above an altitude of 13,000 feet.
- Once it is completed, it will facilitate an all weather connectivity to Tawang.
- The Sela tunnel will allow faster deployment of weapons and soldiers ensuring winter connectivity and shorter travel time.

India emerges as the largest exporter of cucumber and gherkins in the world

In News

India has exported cucumber and gherkins to the tune of 1,23,846 Metric Tonnes with a value of USD 114 million during April-October, 2021.

Details

- India exported USD 200 million worth of agricultural processed product, pickling cucumber, which is globally referred to as gherkins.
- In 2020-21, India exported 2,23,515 Metric Tonnes of cucumber and gherkins with a value of USD 223 million.

Gherkins

- Gherkin cultivation, processing and exports started in India during the early 1990s in Karnataka and later extended to the neighbouring states of Tamil Nadu, Andhra Pradesh and Telangana.
- About 15% of the world's gherkin requirement is grown in India.
- Cucumbers and gherkins are prepared and preserved by vinegar or acetic acid.
- In India, the cultivation of gherkins is carried out under contract farming by around 90,000 small and marginal farmers with an annual production area of 65,000 acres.

International Customs Day, 2022

In News

The Central Board of Indirect Taxes and Customs (CBIC) observed the International Customs Day on the 26th day of January 2022.

About International Customs day:

- The International Customs day is celebrated all across the world with the United Nations as the host.
- It is an annual event that acknowledges the efforts of custom officials and agencies towards the smooth movement of goods across the borders globally.

• The Customs Cooperation Council announced the observance of International Customs Day on 26th of January 1953 for the first time. It was attended by 17 European countries and the inaugural ceremony was held in Brussels, Belgium.

Importance of the Day

- This day is celebrated with the objective to offer impetus to leadership, guidance and support to customs administrations.
- According to WCO, the borders divide the countries whereas 'customs' develop connections between the countries.

Maharaja Bir Bikram Airport

In News

The Prime Minister inaugurated the New Terminal Building of Maharaja Bir Bikram Airport in Agartala to strengthen connectivity.

Importance of Airport

- The airport is a blend of Tripura's culture, natural beauty and modern facilities that would expand the air connectivity in the North East.
- This is an exemplary step to make Tripura the gateway to the northeast and turn it into a new hub of business and industry as well as a trade corridor.

About Maharaja Bir Bikram

- Bir Bikram Kishore Debbarman was the revered ruler of Tripura belonging to the Manikya dynasty.
- He was born on August 19th 1908.
- He became the 184th and the second last Maharaja of the Kingdom of Tripura in 1923 and ruled till 1947.
- He is regarded as the Modern Architect of Tripura as he played a pioneering role in the establishment of higher educational institutions.
- He introduced proper planning for the entire state of Tripura during his rule.

Green Energy Corridor Phase II

In News

The Cabinet Committee on Economic Affairs has approved Phase-II of the Green Energy Corridor for Intra-State Transmission System.

About the Scheme

- AIM To to achieve the target of 450GW installed renewable energy capacity by 2030.
- The Intra State Transmission System under the GEC scheme will provide an additional transmission line with a transformation capacity of 27,500 Megavolt-Amperes (MVA) of the substations.
- The green corridor project is monitored by the Ministry of New and Renewable Energy through a Project Appraisal Committee and implemented by the respective State Transmission Utilities.
- The scheme will enable grid integration and power evacuation of 20 GW of renewable energy power projects in seven states namely, Gujarat, Himachal Pradesh, Karnataka, Kerala, Rajasthan, Tamil Nadu and Uttar Pradesh.
- 33% of the project cost will be funded through Central Financial Assistance which will also help in the offsetting of Intra-State Transmission charges. This will ensure low power costs benefiting the end-users.

One Nation-One Grid-One Frequency- National Grid.

In News

Recently, the Power Grid Corp. of India Ltd (PGCIL) celebrated the anniversary of operationalization of One Nation-One Grid-One Frequency i.e National Grid.

About National Grid

- The national grid management on a regional basis started in the sixties.
- The Indian Power system for planning and operational purposes is divided into five regional grids.
- The integration of regional grids, and thereby establishment of National Grid, was conceptualised in the early nineties.
- Initially, State grids were interconnected to form a regional grid and India was demarcated into 5 regions namely Northern, Eastern, Western, North Eastern and Southern region.
- In 1991 North Eastern and Eastern grids were connected. Further, in 2003, Western region grid was connected with it.
- In august 2006 North and East grids were interconnected thereby 4 regional grids are synchronously connected forming a central grid operating at one frequency.
- On 31st December 2013, the southern Region was connected to the Central Grid. Thereby achieving 'One Nation, One Grid, One Frequency'.

Benefits

- Synchronisation of all regional grids will help in optimal utilization of scarce natural resources by transfer of Power from Resource centric regions to Load centric regions.
- Further, this shall pave the way for establishment of a vibrant Electricity market facilitating trading of power across regions

National Adaptation Fund for Climate Change

In News

The effectiveness of the National Adaptation Fund for Climate Change in important project implementation has been discussed in Rajya Sabha.

National Adaptation Fund for Climate Change

- The projects under the NAFCC operate under NABARD, which is the National Implementing Entity for the adaptation fund.
- It is a central sector scheme. The Central Sector Schemes are 100% funded by the central government and formulated on the subjects in the union list.
- The adaptive capacity of the states and the union territories that are vulnerable to climate change has been aimed to increase under this funding system.
- It encourages climate resilience in various projects related to agriculture, horticulture, agroforestry, water, coastal and low lying systems, disaster management, human health, marine system, tourism and other rural livelihood sectors.

Budget 2022-23

In News

Recently, the Minister of Finance presented the Union Budget 2022-23. With this Budget, India has marked the 75 years of Independence through Azadi ka Amrit Mahotsav. Apart from this, the budget also lays down a plan for next 25 years and refers to the same period as Amrit Kaal.

About Budget

- According to Article 112 of the Indian Constitution, the Union Budget of a year is referred to as the Annual Financial Statement (AFS).
- It is a statement of the estimated receipts and expenditure of the Government in a Financial Year (which begins on 1st April of the current year and ends on 31st March of the following year).

lt contains -

- Estimates of revenue and capital receipts,
- Ways and means to raise the revenue,
- Estimates of expenditure,
- Details of the actual receipts and expenditure of the closing financial year and the reasons for any deficit or surplus in that year, and
- The economic and financial policy of the coming year, i.e., taxation proposals, prospects of revenue, spending programme and introduction of new schemes/projects.

Regulation of Crypto-currencies

In News

Recently, the Finance Minister, in her Budget 2022 announced a 30% tax on income from virtual digital assets. Additionally, she also proposed a Tax Deduction at Source (TDS) on payment made in relation to the transfer of virtual digital assets at 1% above a monetary threshold.

Virtual Digital Assets

- The finance bill defined the term "virtual digital asset" by entering a new clause (47A).
- As per the proposed new clause, a virtual digital asset is proposed to mean any information or code or number or token (not being Indian currency or any foreign currency), generated through cryptographic means.

Currency

- A currency is a currency only when it is issued by the central bank even if it is a crypto.
- However, anything which is outside of that loosely all of us refer it to be cryptocurrency but they are not currencies.
- These can be referred to as Virtual Digital Assets.
- Virtual Digital Assets also include Non-fungible tokens or NFTs, which are cryptographic assets on a blockchain with unique identification codes and metadata that distinguish them from each other. NFTs can also be used to represent individuals' identities, property rights, and more.

Powerthon-2022

In News

Recently, the Ministry of Power has launched Powerthon-2022.

About RDSS

- It is a hackathon competition under RDSS (Revamped Distribution Sector Scheme) to find technology driven solutions to solve the complex problems in power distribution.
- The hackathon will see participation from startups, Technology Solution Providers (TSPs), educational and research institutions, equipment manufacturers and state power utilities and other power entities.
- The nine themes for the hackathon are -- demand/load forecasting, AT&C (Aggregate Technical and Commercial) loss reduction, energy theft detection, prediction of DT (Distribution Transformer) failure, asset

inspection, vegetation management, consumer experience enhancement, renewable energy integration and power purchase optimisation.

Lifting of "Export Prohibition" on Bamboo Charcoal

In News

Khadi and Village Industries Commission (KVIC) urged the Government to lift the "export prohibition" on bamboo charcoal for optimum utilization of raw bamboo and higher profitability in the bamboo industry.

Indian Bamboo Industry

- In India, bamboo is mainly used in manufacturing of Agarbatti where, about 16%, i.e the upper layers of the bamboo, is used for manufacturing bamboo sticks while the remaining 84% of bamboo is of complete waste.
- The Bamboo waste generated in Agarbatti and bamboo craft industries is not being utilized commercially, as a result, the Bamboo input cost for Bamboo Sticks is very high compared to the average Bamboo cost.
- The Bamboo price in China is very low compared to the input cost owing to 100% waste utilization.

Bamboo Charcoal

- The bamboo wastes can be best used for making "Bamboo Charcoal" which has a huge demand in the international market.
- The demand for import of bamboo charcoal has been in the range of **\$1.5 to 2 billion** and has been growing at a high rate.
- Rising import demand is seen in countries like the USA, Japan, Korea, Belgium, Germany, Italy, France and the UK.
- It is also used as a soil nutrient and raw material for manufacturing Activated Charcoal.
- However, the Indian bamboo industry is not able to tap the opportunity due to its "export prohibition".
- The exports of Bamboo Charcoal, Bamboo Pulp and unprocessed shoots are kept under the prohibited category in India.

ICRISAT

In news

The Prime Minister addressed the 50th anniversary of the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) in Patancheru, Hyderabad.

About the Institute:

- ICRISAT is an international organisation that conducts agricultural research for the development in Asia & sub-Saharan Africa.
- It was founded in 1972 by a consortium of organisations convened by the Ford and Rockefeller foundations.
- Its charter was signed by the FAO and the UNDP.
- It is managed by a full-term Director-General functioning under the overall guidance of an international governing board.
- It assists farmers in the improvement of crop varieties and hybrids.
- It is headquartered in Patancheru in Hyderabad with several regional centres at Bamako, Nairobi, Niamey, Kano, Addis Ababa.
- Ever since its inception, India has granted the institute a special status as a UN Organisation operating in the Indian subcontinent with immunities and tax privileges.

Agricultural Products Export Development Authority [APEDA]

In News

Agricultural Products Export Development Authority (APEDA) celebrated its 36th Foundation Day.

About APEDA

- The Agricultural and Processed Food Products Export Development Authority (APEDA) was established by the Government of India under the Agricultural and Processed Food Products Export Development Authority Act, 1985.
- It functions under the Ministry of Commerce and Industry. The Authority has its headquarters in New Delhi.

Various Initiatives by APEDA

- APEDA has promoted IT-enabled activities for ease of doing business in the promotion and development of exports from India.
- APEDA has undertaken initiatives like paperless office, APEDA Mobile App, phase-wise delivery of online services, monitoring and evaluation, uniform access, and virtual trade fair with an aim to take export of agricultural products to a new level.
- APEDA has been focusing on the promotion of exports of locally sourced Geographical Indications (GI) tagged as well as indigenous, ethnic agricultural products.
- A Farmer Connect Portal has also been set up by APEDA for providing a platform for Farmer Producers Organisations (FPOs) or Cooperatives to interact with exporters.
- For promoting use of hybrid technology, APEDA has integrated a Blockchain solution into its GrapeNet traceability platform.
- **GrapeNet** is a web-based certification and traceability software system for monitoring fresh grapes exported from India to the European Union
- The APEDA website provides online facilities for the issuance of Registration-cum-Membership Certificate (RCMC), Registration-cum-Allocation Certificate (RCAC) and submission of financial assistance schemes applications.
- The Government of India initiated the development of the National Programme for Organic Production (NPOP), and APEDA is designated as the Secretariat for NPOP.

National Single Window System

In News

Jammu & Kashmir becomes the first union territory to get integrated with the National Single Window System (NSWS).

About NSWS

- The Ministry of Commerce and Industry has launched the national single window system for expanding the scope of Ease of Doing Business.
- The Department for Promotion of Industry and Internal Trade in association with Invest India initiated this portal.
- It is aimed at making investments flexible and easy.
- This single window system acts as a portal that allows businesses to apply for clearances, track the process and address their queries.
- It ensures a one-stop solution for states and central governments in carrying out businesses bringing more transparency and accountability.
- It offers a Know Your Approvals service which gives information about the required approvals, criteria and a common registration form. This speeds up the process of documentation in carrying out business.

• This single window system is in alignment with the interests of schemes like Make in India, Startup India, Production Linked Incentive (PLI).

RCS – UDAN

In News

The first direct flight under the RCS-UDAN initiative was flagged-off connecting Delhi with the heritage city of Khajuraho.

Importance

- Spicejet was awarded the Delhi-Khajuraho-Delhi route under UDAN 3.0.
- This airline is the strongest supporter of the UDAN scheme and operates 65 daily flights under the scheme connecting 14 destinations of the scheme. The Delhi-Khajuraho route will be the 15th UDAN destination.
- Connectivity to the heritage city of Khajuraho will boost the tourism sector upholding the cultural prowess of the city.
- Therefore, this will provide an easy travel for the tourist to cherish the cultural richness of this country.

About Khajuraho:

- Khajuraho is an ancient city popular for its magnificent temples located in the Chhatarpur district of Madhya Pradesh.
- It was built in the medieval period by the Chandela dynasty known for its Nagara-style architecture and graceful sculptures of nayikas and deities.
- The temples represent forms like meditation, spiritual teachings, and relationships through stimulating art.
- It is one of the UNESCO World Heritage Sites in India.
- The Khajuraho dance festival can be witnessed in the month of February.

PM Gati Shakti

In News

The PM Gati Shakti National Master Plan exhibited considerable progress in the development of connectivity across the country under the aegis of the Ministry of Road Transport and Highways.

About the Gati Shakti Master Plan:

- Gati Shakti is a digital platform that brings together 16 ministries that include railways and roadways.
- It intends to establish integrated planning and effective implementation of the projects for industry clusters and economic nodes.
- The scheme will provide impetus to several Greenfield expressways, Multi-Modal Logistics Parks as components of the Bharatmala Pariyojana and other connectivity schemes of the ministry.

Important Projects under Gati Shakti:

- Delhi-Mumbai Expressway
- Ahmedabad-Dholera Expressway
- Delhi-Amritsar-Katra Expressway
- Bengaluru-Chennai Expressway
- Zojila tunnel
- Roads to connect Krishnapatnam Port (Andhra Pradesh)
- A major bridge over Middle Strait Creek
- Bridge over Ganga bridge at Phaphamau
- Bridge over the Brahmaputra between Dhubri and Phulbari

Corporatisation of Ordnance Factories

In News

The Government is committed to safeguarding the interests of the erstwhile Ordnance Factory Board (OFB).

Corporatisation of OFB:

- The main idea behind this has been efforts to improve the efficiency in the functioning of the units; improvement in the quality and making the end products competitive.
- Three expert committees looking into the defense reforms recommended the corporatization of OFB.
- These include in 2000 the TKS Nair Committee; this was followed by Vijay Kelkar Committee in 2005; and then in 2015 Vice Admiral Raman Puri Committee.

About OFB

- The Kolkata-based OFB presides over a group of 41 factories that specialize in the production, testing, logistics, research, development and marketing of a comprehensive product range in the area of land, sea and air systems.
- The origin of the OFB can be traced back to British times when the colonialists set up the Board of Ordnance at Kolkata's Fort William in 1775.

National Agriculture Disaster Management Scheme

In News

The Indian Council of Agricultural Research, the Ministry of Agriculture and Farmers' Welfare has launched a flagship network project called the National Innovations in Climate Resilient Agriculture (NICRA) in line with the National Agriculture Disaster Management Scheme.

Features of the scheme

- The scheme will tackle the issues of sudden climate change that impact agriculture incurring huge losses for the farmers.
- Under the scheme, the government will make an attempt to introduce climate-smart technologies involving farmers in risk assessment and adaptation techniques in several clusters covering many villages.
- About 65 location-specific climate-resilient technologies have been developed.
- So far, 8 climate-resilient varieties have been identified in rice, green gram, maize and lentil.

Towns of Export Excellence

In News

39 towns have been recognized as Towns of Export Excellence under the foreign trade policy towns of export excellence to avail the benefits under the policy.

Towns of Export Excellence: Benefits

- Towns producing goods of Rs 750 crore or more can be recognised as Towns of Export Excellence based on the potential for growth in exports.
- Recognised associations of units in towns of export excellence can avail financial assistance under the Market Access Initiative Scheme, on a priority basis.
- The assistance will be provided for export promotion projects for marketing, capacity building and technical services.

- The common service providers in the towns of export excellence are entitled for authorization under the Export Promotion Capital Goods Scheme.
- Tripur, Ludhiana, Panipat, Kanoor and Karur are some of the towns under this category.

National Land Monetization Corporation

In News

The Union Cabinet, chaired by Prime Minister Shri Narendra Modi has approved the setting up National Land Monetization Corporation (NLMC) as a wholly owned Government of India company with an initial authorized share capital of Rs 5000 crore and paid-up share capital of Rs 150 crore.

Details

- NLMC will undertake monetization of surplus land and building assets of Central Public Sector Enterprises (CPSEs) and other Government agencies.
- The proposal is in pursuance of the Budget Announcement for 2021-22.
- With monetization of non-core assets, Government would be able to generate substantial revenues by monetizing unused and under-used assets.

Significance

- At present, CPSEs hold considerable surplus, unused and under used non-core assets in the nature of land and buildings.
- For CPSEs undergoing strategic disinvestment or closure, monetization of these surplus land and non-core assets is important to unlock their value.
- NLMC will support and undertake monetization of these assets.
- This will also enable productive utilization of these under-utilized assets to trigger private sector investments, new economic activities, boost local economy and generate financial resources for economic and social infrastructure.

About NLMC

- NLMC is also expected to own, hold, manage and monetize surplus land and building assets of CPSEs under closure and the surplus non-core land assets of Government owned CPSEs under strategic disinvestment.
- This will speed up the closure process of CPSEs and smoothen the strategic disinvestment process of Government owned CPSEs.
- These assets may be transferred to NLMC to hold, manage and monetize these assets. NLMC will also advise and support other Government entities (including CPSEs) in identifying their surplus non-core assets and monetizing them in a professional and efficient manner to generate maximum value realization.
- In these cases (e.g., on-going CPSEs and listed CPSEs under strategic disinvestment), NLMC will undertake surplus land asset monetization as an agency function.
- It is expected that NLMC will act as a repository of best practices in land monetization, assist and provide technical advice to Government in implementation of asset monetization programme.

North Eastern Development Finance Corporation

In News

North Eastern Development Finance Corporation Ltd. (NEDFi), has organized a Startup Investment Festival, 2022 from 15.02.2022 to 15.03.2022.

Details

- This event will provide a platform to local entrepreneurs to showcase their business ideas and to pitch for investment through access to capital for scaling up their businesses.
- It will also help them avail other facilities like handholding support, advisor network, investor network, marketing support etc.
- The reason for organizing this event is to reach out to start-ups and first generation entrepreneurs of North Eastern Region (NER) and boost the start-up ecosystem in the region.

About North East Venture Fund

- North East Venture Fund (NEVF) is a dedicated venture fund for the NER promoted by NEDFi, Ministry of Development of North Eastern Region (MDoNER) and Small Industries Development Bank of India (SIDBI).
- It was launched in September, 2017 with a corpus of Rs. 100 crore, with contributions of Rs. 45 crore as interest free loan from MDoNER, Rs. 30 croreby NEDFi itself and Rs. 25 crore from SIDBI.
- It is registered with Securities Exchange Board of India (SEBI) under SEBI (AIF) Regulations, 2012, as a sector agnostic fund.

PM-DevINE

In News

PM-DevINE scheme was announced in the Budget 2022-23 by the Finance Minister under PM Gati Shakti Plan.

About the Scheme

- Prime Minister's Development Initiative for North East (or PM-DevINE) has been announced in Union Budget 2022-23, which will fund infrastructure in the spirit of PM Gati Shakti, and social development projects based on felt needs of the North-East.
- PM-DevINE will enable livelihood activities for youth and women by filling the gaps in various sectors, but it will not be a substitute for existing Central or State schemes.
- An initial allocation of Rs.1,500 crore has been made, as per Budget speech for 2022-23.
- The scheme aims to fund infrastructure and need-based social development, including one-of-a-kind 'Bamboo Link Roads' in Mizoram.
- The PM-DevINE scheme will be implemented through North Eastern Council (NEC).
- Bamboo Link Roads will be constructed in Mizoram, under the PM-DevINE scheme.
- These roads will help in transporting bamboo from forests.
- It will also help in management of paediatric and adult hematolymphoid (head and neck) cancers in northeast region.

Centre focusses on promoting exports of GI-tagged niche agricultural products

In News

In a bid to promote exports of locally sourced Geographical Indications (GI) tagged agricultural products, Centre has been striving to identify new products and new export destinations.

Benefits of GI tag

• In a major thrust to exports of GI-tagged products from Bihar, the first shipment of 524 Kg GI tagged Shahi Litchi was exported from Muzaffarpur district of Bihar to London in May 2021.

- In 2020, virtual buyer-seller meets were organized with UAE and USA, two of the largest export markets for APEDA scheduled products, in association with the Embassy of India in Abu Dhabi and the Embassy of India in Washington DC.
- The meet on GI products provided a platform for interaction between Indian exporters and importers of USA and UAE.
- The exporters were informed about the potential GI products for exports such as Basmati Rice, Mango, Pomegranates, Bangalore Rose Onions, SangliGrapes/Raisin, Banana and products of North-Eastern Region such as Joha Rice of Assam, Black Rice (Chak-Hao), Naga Mircha, and their derived processed products.

GI products

- Notable shipments of GI products in 2021 included export of Naga Mircha (King Chilli) from Nagaland to UK, Black Rice from Manipur and Assam to the United Kingdom, Assam Lemon to the United Kingdom and Italy, three GI varieties of Mango (Fazli, Khirsapati, and Laxmanbhog) from West Bengal and one GI variety of Mango (Zardalu) from Bihar to Bahrain and Qatar.
- Around 30 kgs of a sample shipment of Joynagar Moa, a sweetmeat delicacy from South 24 Pargana district of West Bengal was sent via Kolkata airport to Bahrain.

NERCRMS initiative

In News

- Konsa hamlet is in the Longding District of Arunachal Pradesh.
- Pongchau Block is one of the last villages near the Myanmar border.
- As per the PRA report, the village is surrounded by 120 households.
- The village's eight SHGs are Banu, Jingnungja, Mohiman, Josa, Chingkho, Jongkha, Mokha, and Lamngoi.
- All of these SHGs are promoted and supported by NERCOMRP III Tirap and Longding.

About NERCRMS

- North Eastern Region Community Resource Management Society (NERCRMS) is a registered society under the aegis of North Eastern Council, Ministry of Development of North Eastern Region.
- The society is dedicated towards the transformation of far flung rural areas of North Eastern Region (NER) of India through different livelihood initiatives.
- The society, so far has covered four states of NER viz. Arunachal Pradesh (Changlang, Tirap and Long ding districts), Assam Karbi Anglongand DimaHasaodistricts), Manipur (Ukhrul, Senapati, Churachandpur and Chandel districts) and Meghalaya (West Garo Hills and West Khasi Hills districts).
- The overall objective of the project is to "To improve the livelihoods of vulnerable groups in a sustainable manner through improved management of their resource base in a way that contributes to preservation and restoration of the environment".

"Go Electric" Campaign

In News

Government of India, Ministry of Power launched the "Go Electric" Campaign on 19th February 2021.

About Campaign

• The objective of this campaign is to create awareness among masses about benefits of switching over to Electric Vehicles (EVs), including various initiatives taken by Centre & State Governments to enhance acceptability of Electric Vehicles, and Electrical Cooking.

- This campaign is being implemented through State Nodal Agencies (SNAs) designated by States for coordinating activities related to rolling out Public Charging Infrastructure in States.
- Under this campaign, Workshops, Webinars, Technical talks, Seminars, Road Shows are being organized to connect with the masses and spread the message of going electric.
- Reduction in the import bill of crude would be the outcome of the campaign as more and more consumers adopt EVs as a preferred choice while buying new vehicles over the next decade.
- Electric Vehicles (EVs) do not result in emission.
- EVs need electricity from Grid to charge on board batteries. With the rapid addition of Renewable Energy, Thermal generation is expected to reduce in overall electricity mix, further minimizing the carbon emission intensity in future.

India Semiconductor Mission

In News

The vision of AtmaNirbharta in electronics & semiconductors was given further momentum by the Union Cabinet, chaired by the Hon'ble Prime Minister, approving the Semicon India programme with a total outlay of INR 76,000 crore for the development of semiconductor and display manufacturing ecosystem in our country.

About mission

- The programme aims to provide financial support to companies investing in semiconductors, display manufacturing and design ecosystem.
- This will serve to pave the way for India's growing presence in the global electronics value chains.
- India Semiconductor Mission (ISM) has been setup as an Independent Business Division within Digital India Corporation having administrative and financial autonomy to formulate and drive India's long term strategies for developing semiconductors and display manufacturing facilities and semiconductor design ecosystem.
- Government has also approved modernisation of Semi-Conductor Laboratory, Mohali as a brownfield Fab.
- ISM will also enable collaborations and partnership programs with national and international agencies, industries and institutions for catalyzing collaborative research, commercialization and skill development.

Four schemes have been introduced under the programme-

- Scheme for setting up of Semiconductor Fabs in India
- Scheme for setting up of Display Fabs in India
- Scheme for setting up of Compound Semiconductors / Silicon Photonics / Sensors Fab and Semiconductor Assembly, Testing, Marking and Packaging (ATMP) / OSAT facilities in India
- Design Linked Incentive (DLI) Scheme

Export Preparedness Index

In News

NITI Aayog, in collaboration with the Institute of Competitiveness, will release the second edition of the Export Preparedness Index (EPI) 2021.

About Index

• The release of the second edition of the index—the first was launched in August 2020—demonstrates the Government's continued commitment towards promoting competitive federalism wherein each state can identify their export opportunities and challenges and subsequently establish context-specific strategies for ensuring a conducive export ecosystem.

- The Export Preparedness Index ranks all States and Union Territories (UTs) on the basis of their export readiness and performance.
- EPI 2021 is based on four main pillars: policy; business ecosystem; export ecosystem; and export performance.
- The index can be used by States and UTs to benchmark their performance against their peers and analyze the potential challenges to develop better policy mechanisms to foster export-led growth at the subnational level.

RAMP Scheme

In News

- The Union Cabinet chaired by the Prime Minister, Shri Narendra Modi, approved a USD 808 million or Rs 6,062.45 crore, World Bank assisted programme on "Raising and Accelerating MSME Performance" (RAMP).
- RAMP is a new scheme and would commence in FY 2022-23.
- RAMP was formulated and proposed by the Government of India, for strengthening MSMEs in line with the recommendations made by U K Sinha Committee, KV Kamath Committee and Economic Advisory Council to the Prime Minister (PMEAC).

About RAMP Scheme

- The total outlay for the scheme is Rs.6,062.45 crore or USD 808 Million, out of which Rs.3750 crore or USD 500 Million would be a loan from the World Bank and the remaining Rs.2312.45 crore or USD 308 Million would be funded by the Government of India (GoI).
- The programme aims at improving access to market and credit, strengthening institutions and governance at the Centre and State, improving Centre-State linkages and partnerships, addressing issues of delayed payments and greening of MSMEs.
- In addition to building the MoMSME's capacity at the national level, the RAMP program will seek to scale up implementation capacity and MSME coverage in States.
- RAMP programme, through enhanced collaboration with States, will be a job-enabler, market promoter, finance facilitator, and will support vulnerable sections and greening initiatives.
- In States where the presence of MSMEs is on the lower side, the programme will usher in larger formalization resulting from the higher impact of the schemes covered under RAMP.
- The programme will bolster the inadequately addressed blocks of capacity building, handholding, skill development, quality enrichment, technological upgradation, digitization, outreach and marketing promotion, amongst other things.

Features of the scheme

- 'Policy Provider'' through the enhanced capacity for evidence-based policy and program design, to enable the delivery of more effective and cost-efficient MSME interventions to improve competitiveness and business sustainability.
- "Knowledge Provider" through bench-marking, sharing and demonstrating best practices/success stories by leveraging international experiences, and
- "Technology Provider" providing access to high-end technology resulting in the digital and technological transformation of MSMEs through state of art Artificial Intelligence, Data Analytics, Internet of things (IoT), Machine Learning etc.
- RAMP programme with impacts across the country will directly or indirectly benefit all 63 million enterprises that qualify as MSMEs.

Pradhan Mantri Annadata Aay Sanrakshan Abhiyan (PM-AASHA)

In News

In order to provide remunerative price to the farmers of notified pulses, oilseeds & copra, Government implements an umbrella scheme of Pradhan Mantri Annadata Aay Sanrakshan Abhiyan (PM-AASHA) consisting of Price Support Scheme (PSS), Price Deficiency Payment Scheme (PDPS) and Pilot Private Procurement & Stockiest Scheme (PPSS).

About PDPS

- Under PDPS, no physical procurement is done but direct payment of the difference between the MSP and the selling / modal price to pre- registered farmers selling oilseeds of prescribed Fair Average Quality (FAQ) norms within the stipulated period in the notified market yard through a transparent auction process is made.
- Besides, States have the option to roll out Private Procurement and Stockist Scheme (PPSS) on pilot basis in district / selected APMC(s) of district for oilseeds.

About PSS

- Under PSS, Government has provided Government Guarantee amounting to Rs. 40,500/- cr. for extending cash credit facilities to Central Nodal Agencies i.e. NAFED & FCI for procurement of pulses, oilseeds & copra at Minimum Support Price (MSP).
- Central Nodal Agencies withdraw the required funds against the Government Guarantee for making payment of MSP value to farmers and other incidental costs involved in the PSS operations.

Semicon India Program

In News

Union Minister for Electronics & Information Technology, Communications and Railways informed that the government had approved the Semicon India Program (Program for Development of Semiconductors and Display Manufacturing Ecosystem in India), with an outlay of INR 760 billion for the development of a sustainable semiconductor and display manufacturing ecosystem in India on December 15, 2021.

About the program

The Semicon India Program aims to provide attractive incentive support to companies / consortia that are engaged in Silicon Semiconductor Fabs, Display Fabs, Compound Semiconductors / Silicon Photonics / Sensors (including MEMS) Fabs, Semiconductor Packaging (ATMP / OSAT) and Semiconductor Design.

Following four schemes have been introduced under the aforesaid programme:

- Scheme for setting up of Semiconductor Fabs in India provides fiscal support to eligible applicants for setting up of Semiconductor Fabs
- Scheme for setting up of Display Fabs in India provides fiscal support to eligible applicants for setting up of Display Fabs
- Scheme for setting up of Compound Semiconductors / Silicon Photonics / Sensors Fab and Semiconductor Assembly, Testing, Marking and Packaging (ATMP) / OSAT facilities in India
- Design Linked Incentive (DLI) Scheme offers financial incentives, design infrastructure support across various stages of development and deployment of semiconductor design for Integrated Circuits (ICs), Chipsets, System on Chips (SoCs), Systems & IP Cores and semiconductor linked design.

• In addition to the above schemes, Government has also approved modernisation of Semi-Conductor Laboratory, Mohali as a brownfield Fab.

Cabinet approves bilateral MoU between SEBI and FRC, Mongolia

In News

The Union Cabinet chaired by the Prime Minister, Shri Narendra Modi has approved the proposal for signing a bilateral Memorandum of Understanding (MoU) between Securities and Exchange Board of India (SEBI) and Financial Regulatory Commission, Mongolia (FRC).

Benefits of MoU

- The proposed bilateral MoU would, in addition to contributing towards strengthening the information sharing framework leading to effective enforcement of securities laws, also help in establishing a technical assistance programme.
- The technical assistance programme would benefit the Authorities by way of consultations on matters relating to capital markets, capacity building activities and training programmes for the staff.

About SEBI

- The Securities and Exchange Board of India (SEBI) was established under the Securities and Exchange Board of India Act, 1992 to regulate the securities markets in India.
- The **objectives** of the SEBI are to protect the interest of the investors and to regulate and promote development of securities markets in India.

About FRC

- Established in 2006, the Financial Regulatory Commission (FRC) is a parliamentary authority mandated to supervise and regulate the non-bank sector; including the insurance and securities markets, and participants of the microfinance sector.
- The FRC is responsible for providing stable and sound financial markets.
- The Commission exercises power over non-bank financial institutions, insurance companies and intermediaries, securities firms, and savings and credit cooperatives.

Fortified Rice

In News

- The Cabinet Committee on Economic Affairs, chaired by the Prime Minister, Shri Narendra Modi, today has accorded its approval for supply of fortified rice throughout the Targeted Public Distribution System (TPDS) under the National Food Security Act (NFSA), Integrated Child Development Services (ICDS), Pradhan Mantri Poshan Shakti Nirman-PM POSHAN in all States and Union Territories (UTs) by 2024 in a phased manner.
- The entire cost of rice fortification (around Rs. 2,700 crore per annum) would be borne by the Govt. of India as part of food subsidy till its full implementation upto June, 2024.

Implementation of the Scheme

- Phase-I: Covering ICDS and PM POSHAN in India all over by March, 2022 which is under implementation.
- **Phase-II**: Phase I above plus TPDS and OWS in all Aspirational and High Burden Districts on stunting (total 291 districts) by March 2023.
- **Phase-Ill**: Phase II above plus covering the remaining districts of the country by March 2024.

Rice Fortification

- The Food Safety and Standards Authority of India (FSSAI) defines fortification as "deliberately increasing the content of essential micronutrients in a food so as to improve the nutritional quality of food and to provide public health benefit with minimal risk to health".
- Various technologies are available to add micronutrients to regular rice, such as coating, dusting, and 'extrusion'.
- The last mentioned involves the production of fortified rice kernels (FRKs) from a mixture using an 'extruder' machine.
- It is considered to be the best technology for India.
- The fortified rice kernels are blended with regular rice to produce fortified rice.

Extrusion Technology

- Dry rice flour is mixed with a premix of micronutrients, and water is added to this mixture.
- The mixture is passed through a twin-screw extruder with heating zones, which produces kernels similar in shape and size to rice.
- These kernels are dried, cooled, and packaged for use.
- FRK has a shelf life of at least 12 months.
- The length and breadth of the grain should be 5 mm and 2.2 mm respectively.

Need of Rice fortification

- India has very high levels of malnutrition among women and children.
- According to the Food Ministry, every second woman in the country is anaemic and every third child is stunted.
- Fortification of food is considered to be one of the most suitable methods to combat malnutrition.
- Rice is one of India's staple foods, consumed by about two-thirds of the population. Per capita rice consumption in India is 6.8 kg per month.
- Therefore, fortifying rice with micronutrients is an option to supplement the diet of the poor.

e-BCAS project

In News

The meeting of the parliamentary consultative committee attached to the Ministry of civil Aviation was held recently. The topic of discussion was "e-BCAS project".

e-BCAS Project

- An initiative under e-Governance for automation of internal processes.
- This will be an online platform for facilitation of stakeholders.
- It will leverage strengths of existing processes and organization structure, with the objective to make entire activities transparent, user-friendly and efficient.
- It will digitize the office processes, facilitate fast approvals, and ensure ease of doing business, by technological integration across various divisions and processes.

Other Initiatives

- e-Sahaj module, issuance of security clearance will be provided.
- Under the **e-training module**, 16 training courses are being run for aviation security training and certifications.
- The Module involves online testing and effective supervision on quality of training being imparted.

- The **Centralized Access Control System (CACS)** deals with online system for Bio-metric Aerodrome entry permit and vehicle entry permit.
- It will regulate access of employees of approved Government and private entities and authorized vehicles across zones at airports.
- The e-Security programme is the single window facility for security programme approvals.
- The e-Quality control module is for security audit and security inspection of airports.

About BCAS

- Bureau of Civil Aviation Security (BCAS) establishes, develops, implements, maintains and reviews the National Aviation Security programme.
- It also safeguards civil aviation operations against the acts of unlawful interference and threat, taking into account the safety, regularity and efficiency of flights.

First Made in India Dornier Aircraft Flight

In News

The Minister of Civil Aviation Shri Jyotiraditya M. Scindia and the Chief Minister of Arunachal Pradesh Shri Pema Khandu flagged off the first flight of Made in India HAL Dornier Do-228 in a bid to connect airports and Advanced Landing Grounds (ALGs) of Northeast India.

About Dornier Aircraft

- Manufactured by Hindustan Aeronautics Limited (HAL), the 17-seater aircraft will be operated by Alliance Air, and connect Dibrugarh with Pasighat and Lilabari (Assam).
- HAL is a Central Public Sector Unit under Ministry of Defence to operate Indian made Dornier aircraft, which is called Hindustan aircraft.
- This initiative is in line with the vision of Prime Minister of India Shri Narendra Modi "AtmaNirbhar Bharat". With this, Alliance Air becomes the first commercial airline to fly Indian made aircraft for civil operations.
- The deployment of Indian made Do-228 will be done in a phased manner.
- In the first phase, 2 Hindustan aircrafts would be stationed at Dibrugarh, to connect Tezu, Pasighat and Ziro.
- In the second phase of the program, connectivity to Mechuka, Tuting and Vijoy Nagar has been planned.

About UDAN

- Under "UdeDeshKaAam Nagrik (UDAN)", the Regional Connectivity Scheme (RCS), Ministry of Civil Aviation (MoCA) has identified NER as a priority area.
- This has helped in enhancing inter and intra connectivity for the NER.
- In this regard, new airports are getting developed and old airports are getting upgraded.
- 415 routes have been operationalized under the UDAN scheme and over 91 lakh people have benefitted from it. Over 1 lakh 75 thousand flights are flown under this scheme."

NITI Aayog & UN Hold Workshop on Upcoming GoI–UN Sustainable Development Cooperation Framework 2023–27

In News

NITI Aayog and United Nations organized a day-long national validation workshop on the upcoming Government of India–UN Sustainable Development Cooperation Framework (UNSDCF) 2023–27.

Details

- This was the first such congregation that saw the participation of officials from 30 Union ministries, heads of 26 UN agencies, and representatives from all states and union territories.
- The previous GoI–UNSDF 2018–22 was an agenda of cooperation, results and strategies to achieve national development priorities and the Sustainable Development Goals (SDGs).
- The framework is the single most important instrument capturing the entirety of 26 UN entities' plans and programmes in India. As the 2018–22 framework entered its final year of implementation, GoI and UN committed to renewing it for another five years, 2023–27.
- The 2023–27 cooperation framework will be signed as India completes 75 years of independence.

The new framework has identified six outcome areas:

- health and well-being
- nutrition and food
- quality education
- economic growth and decent work
- environment, climate, wash and resilience
- empowering people, communities, and institutions.

5G Vertical Engagement and Partnership Program

In News

The Department of Telecommunications (DoT) has invited Expression of Interest (EoI) for "5G Vertical Engagement and Partnership Program (VEPP)" initiative to build strong collaboration partnerships across 5G Use-case ecosystem stakeholders.

5G Vertical Engagement and Partnership Program

- It is an Initiative, where the DoT will "facilitate necessary approvals, regulatory clearances to enable use case prototyping, pilots, demos, trials at the user or vertical industry premises".
- The DoT will facilitate access to experimental spectrum, access to testbeds and engagement with academia, other ministries for necessary regulatory policies and pilots wherever feasible.

Objectives

It seeks to build strong collaboration partnerships across 5G Use-case ecosystem stakeholders with velocity and with an exclusive emphasis to address User/Vertical Industry needs.

5G

- 5G is the next generation of mobile broadband that will eventually replace, or at least augment 4G LTE connection.
- Operate in the millimeter wave spectrum (30-300 GHz) which have the advantage of sending large amounts of data at very high speeds.
- Operate in 3 bands, namely low, mid and high frequency spectrum.
- Reduced latency will support new applications that leverage the power of 5G, the Internet of Things (IoT), and artificial intelligence.
- Increased capacity on 5G networks can minimize the impact of load spikes, like those that take place during sporting events and news events.

Global Ayush Investment & Innovation Summit

In News

Prime Minister Shri Narendra Modi will inaugurate the three-day Global Ayush Investment & Innovation Summit (GAIIS) in Gandhinagar, Gujrat on 20th April 2022.

About the Summit

- The Summit will witness the participation of industry leaders, academicians, and scholars to deliberate upon ways to promote traditional medicines, and systems.
- **AIM** To attract lucrative investments to build India as the Global Ayush Destination in the world.
- The summit will bring together the country's leading start-ups, entrepreneurs, investors, policymakers, and other national and international stakeholders for a specially curated event on innovation and entrepreneurship to help India become a Global Ayush Destination.
- The present market size of the Ayush sector has grown by 17% p.a. from 2014-2020 and we hope to build the success of the sector even further through these flagship events and initiatives.

Union Minister Shri Anurag Thakur inaugurates 40th 'Hunar Haat' in Mumbai

In News

- Union Minister for Information & Broadcasting and Youth Affairs & Sports, Shri Anurag Thakur inaugurated the 40th edition of the 'Hunar Haat'.
- The 40th edition of Hunar Haat, a credible platform to promote 'Swadeshi' products, is being held at MMRDA Ground, Bandra-Kurla Complex in Mumbai.
- In this 40th edition of Hunar Haat, more than a thousand craftsmen and artisans coming from 31 states have put up 400 stalls.

ZALI

- Tejas' a skilling programme which has been launched by Govt. of India.
- Under this initiative India will send skilled manpower to UAE. "Within a year, 30,000 skilled job-seekers will be sent to UAE.

Hunar Haat

- Hunar Haat is an exhibition of handicrafts and traditional products made by artisans from the minority communities.
- **AIM** These Haat aims to provide market exposure and employment opportunities to artisans, craftsmen and traditional culinary experts.
- It envisages boosting the skills of craftsmen, weavers and artisans who are already engaged in the traditional ancestral work.

Significance

- 'Hunar Haat' has proved to be an "Empowerment Exchange" for master artisans and craftsmen.
- It has proved to be immensely beneficial and encouraging for artisans and craftsmen as lakhs of people visit the "Hunar Haat" and purchase indigenous handmade products of artisans on a large scale.
- More than 5 lakh artisans, craftsmen and people associated with them have been provided employment and employment opportunities in the last about 5 years through "Hunar Haat".

National Agriculture Market Completed 6 years

In News

- e-NAM marks the sixth anniversary of the National Agriculture Market (e-NAM), a pan-India electronic trade network.
- The Small Farmers Agribusiness Consortium is implementing e-NAM, which was launched on April 14th in 2016 by Prime Minister Narendra Modi.
- It is completely funded by the Central Government.

e-NAM

- The National Agriculture Market (eNAM) is a pan-India electronic trading system that connects the existing APMC mandis to form a unified national agricultural commodities market.
- Under the Ministry of Agriculture and Farmers' Welfare of the Government of India, the Small Farmers Agribusiness Consortium (SFAC) is the key agency for implementing eNAM.
- VISION- To enhance agricultural marketing uniformity by streamlining procedures across linked marketplaces, eliminating information asymmetry between buyers and sellers, and encouraging real-time price discovery based on actual demand and supply.

Integrated and hi-tech online portals

In News

Union Minister for Agriculture and Farmers' Welfare Shri Narendra Singh Tomar lauched two portals, one for the Computerized Registration of pesticide (CROP) and the other for Plant Quarantine Management System (PQMS).

PQMS Portal

The PQMS portal will provide a transparent system with no physical touch points for the applicants and ensure convenience to the users, through online system including e-payments and uploading of documents, online accreditation and renewal of treatment agencies/facilities and downloading of certificates.

CROP portal

The portal will immensely help in ease of doing business and provide greater and timely Crop protection solution to farmers of the country.

Significance

- Department of Agriculture and Farmers Welfare (DAFW), Ministry of Agriculture and Farmers Welfare, through the Directorate of Plant Protection, Quarantine & Storage (DPPQS), Faridabad has been catering to Indian exporters and importers of agriculture commodities and Indian Pesticide Industry, through its two portals namely, Computerized Registration of pesticide (CROP) and Plant Quarantine Information System (PQIS).
- Realising the need for quicker disposal of applications related to **export/import of agricultural commodities and pesticides registration, a more coordinated** integration with external systems and stakeholders, and to bring in greater transparency in the existing online system, DAFW today launched two redeveloped online portals.
- The new portals will benefit farmers, exporters as well as industrialists.

3day Semicon India 2022 Conference in Bengaluru

In News

Prime Minister Shri Narendra Modi will inaugurate the first ever Semicon India 2022 Conference in Bengaluru.

About Conference

- Semicon India 2022, a 3 day conference, is being organized to take forward the vision of Prime Minister Narendra Modi that is to make India a leader in the electronics manufacturing, semiconductor design, manufacturing & innovation.
- It will attract best minds from across the world from semiconductor industry, research & academia and will act as a big step in fulfilling PM's vision on making India a global hub for electronics manufacturing and Semiconductor industry.
- It will be organised by Ministry of Electronics & Information Technology from April 29 01 May 2022 at ITC Gardenia, Bengaluru.
- Theme of Design and Manufacture in India, for the World: Making India a "Semiconductor Nation".

About ISM

- India Semiconductor Mission (ISM) has been setup as an Independent Business Division within Digital India Corporation having administrative and financial autonomy to formulate and drive India's long term strategies for developing semiconductors and display manufacturing facilities and semiconductor design ecosystem.
- Envisioned to be led by global experts in the Semiconductor and Display industry, ISM will serve as the nodal agency for efficient, coherent and smooth implementation of the schemes.

National Conference on Agriculture- Kharif Campaign - 2022

In News

Union Agriculture Minister, Sh Narendra Singhr Tomar inaugurated National Conference on Agriculture for Kharif Campaign 2022-23 at NASC Complex, New Delhi.

Objective

- To review and assess the crop performance during the preceding crop seasons and fix crop-wise targets for *Kharif* season in consultation with State Governments, ensure supply of critical inputs and facilitate adoption of innovative technologies with a view to enhance production and productivity of the crops.

About Conference

- The Conference set National targets for total food grain production set at 3280 lakh tonnes for the year 2022-23 compared to expected production of 3160 lakh tonnes during current year.
- Target for production of pulses and pulses have been fixed at 295.5 and 413.4 lakh tonnes in 2022-23.
- Nutri-cereals production has to be increased from 115.3 in 2021-22 to 205.0 lakh tonnes in 2022-23.
- The strategy would be to increase area through inter-cropping and crop diversification and productivity enhancement through introduction of HYVs and adoption of suitable agronomic practices in low yielding regions.

'Fincluvation'

In News

On the occasion of the 75th anniversary of Indian Independence & ongoing Azadi ka Amrit Mahotasav, India Post Payments Bank (IPPB), a 100% government owned entity under Department of Posts (DoP) announced the launch of **Fincluvation**– a joint initiative to collaborate with Fintech Startup community to co-create and innovate solutions for financial inclusion.

Features

- Fincluvation is a step in this direction, an Industry first initiative to create a powerful platform to mobilize the start-up community towards building meaningful financial products aimed at financial inclusion.
- Combination of IPPB's Banking stack, DoP's trustworthy doorstep service network and the techno-functional acumen of start-ups can deliver unmatched value to the citizens of the country.
- Fincluvation will be a permanent platform of IPPB to co-create inclusive financial solutions with participating start-ups.
- Fincluvation will allow the start-ups to work with IPPB and DoP experts to develop solutions and conduct pilots using the postal network and IPPB's technology stack. Successful pilots can then mature into long-term partnerships.
- Through Fincluvation, we wanted to create a platform that can provide an opportunity for start-ups to work together with us in understanding the needs of the underserved customers to deliver products with a positive impact and more importantly in a cost effective manner.

Benefits

- Fincluvation will engage startups to participate, ideate, develop and market intuitive and tailored products and services for the customers. It also encourages startups to develop solutions relating to creditization, digitization & more.
- Further, fincluvation can help in meeting the varied and complex needs of the consumers through thoughtful, empathetic product design, and rapid prototyping among users. With Fincluvation would also help develop technology-led financial solutions for India.
- Fincluvation will also allow the start-ups to work with IPPB and DoP experts to develop solutions and conduct pilots using the postal network and IPPB's technology stack.

About India Post Payments Bank

- India Post Payments Bank (IPPB) has been established under the Department of Posts, Ministry of Communication with 100% equity owned by Government of India. IPPB was launched by the Prime Minister Shri Narendra Modi on September 1, 2018.
- The bank has been set up with the vision to build the most accessible, affordable and trusted bank for the common man in India.
- The fundamental mandate of IPPB is to remove barriers for the unbanked and under-banked and reach the last mile leveraging a network comprising 160,000 post offices (145,000 in rural areas) and 400,000 postal employees.

Atal Pension Yojana

In News

• The total enrollments under APY Scheme have crossed 4.01 crore as on March 2022 out of which more than 99 lakh APY accounts were opened during FY 2021-22.

• Around 71% of the enrolments done by Public-sector banks, 19% by Regional Rural Banks, 6% by Private Sector Banks, 3% by Payment and Small Finance Banks.

About APY

- Atal Pension Yojana is the guaranteed pension scheme of Government of India administered by PFRDA.
- The scheme allows any Citizen of India between the age group of 18-40 years to join through the bank or post office branches where one has the savings bank account.
- Under the scheme, a subscriber would receive a minimum guaranteed pension of Rs.1000 to Rs. 5000 per month from the age of 60 years, depending upon his contribution.
- The same pension would be paid to the spouse of the subscriber after the demise of subscriber and on demise of both the subscriber and spouse, the pension wealth as accumulated till age 60 of the subscriber would be returned back to the nominee.

Enrollments

- Out of the total enrolments under APY as on 31st March 2022, nearly 80% subscribers have opted for Rs 1000 pension plan and 13% for Rs 5000 pension plan.
- Out of the total APY subscribers 44 % are female subscribers while 56% are male subscribers.
- Further, out of the total APY subscribers, 45% are aged between 18 and 25 years.

One Nation One Ration Card' scheme

In News

- The Department of Food and Public Distribution (DFPD) received the prestigious Prime Minister's Award for Excellence in Public Administration, 2020 for its scheme 'One Nation One Ration Card' (ONORC).
- The award was presented under the category Innovation (General)-Central.

ONORC

- The ONORC which was started initially in 4 States in August 2019 was swiftly rolled out in a very short span of time in **32 States/UTs** by December 2020.
- Since then, progressively in a phase-wise manner, the ONROC plan is presently enabled in **35 States/UTs** up to **Feb 2022** seamlessly covering nearly **77 Crore** beneficiaries (almost **96.8%** of NFSA population) in the country.
- ONORC has made food subsidies portable to NFSA beneficiaries during the COVID-19 pandemic, particularly migrants, which allowed them to avail the benefit of subsidised foodgrains with flexibility from any of the nearly 5 lakh Fair Price Shops in the country during the lockdown period.
- A specially customized **Android Mobile App on ONORC** is also available in 13 languages and has been downloaded nearly 20 lakh times.
- Besides, a 5-digit **'14445' toll-free** number for migrant NFSA beneficiaries is also available in most States/UTs under ONORC.

Benefits of ONORC

- The landmark plan of ONORC is a countrywide innovation that allows all NFSA beneficiaries, particularly migrant beneficiaries, to claim either full or part foodgrains from any Fair Price Shop (FPS) of choice in the country through existing ration card with biometric/Aadhaar authentication in a seamless manner.
- The system also allows their family members back home, if any, to claim the balance of foodgrains on same the ration card.

30thAnnual General Meeting of the American Chamber of Commerce

In News

Union Minister for Development of North East Region, Tourism and Culture, Shri G. Kishan Reddy, while giving his key note address to the 30th Annual General Meeting of the American Chamber of Commerce, encouraged the business community to invest in North east and tap into its unexplored potential.

AMCHAM

- AMCHAM-India is an association of American business organisations operating in India.
- Established in 1992, AMCHAM has over 400 US companies as members.
- The principal objectives include promotion of activities that would encourage and stimulate investment by US companies in India and increasing bilateral trade.

e-Auction of Commercial Earning and Non-Fare Revenue contracts

In News

Indian Railways has launched a 'pilot project' for e-Auction of Commercial Earning and Non-Fare Revenue contracts, on eleven Divisions over nine Zonal Railways.

Features

- For the contracts for leasing of parcel space, parking lots, and commercial publicity
- Quick finalization of contract, and quick re-award in case failure of any contract
- No geographical restriction on bidders/ applicants for registration and participation in any e-Auction throughout Indian Railways
- Relaxed eligibility criteria
- E-Auction (online) only through IREPS
- Auction catalogues to be published minimum 12 days prior to the day of auction
- To ensure ease-of-doing-business

CSIR-IIIM's BioNEST-Bioincubator

In News

Union Minister Dr Jitendra Singh inaugurates CSIR-IIIM's BioNEST-Bioincubator in Jammu aimed at providing alternative sources of livelihood to thousands of youth in the region.

BioNEST-Bioincubator

- Bio-NEST was launched by Biotechnology Industry Research Assistance Council (BIRAC) to foster the biotech innovation ecosystem in the country.
- Unlike Start-ups in the IT sector, enterprising ideas in the biotech sector need incubation support of a different kind where they need a landing space to test their ideas, run their operations, have access to high end instrumentations and locate in a place where they connect with other start-ups and mentors.
- Bio-NEST program provides support to establish bio-incubators either as a standalone entity or as a part of academia.

• 64 Start-Ups have already registered with CSIR-IIIM Jammu and a fresh impetus has been given to promote Start-Up as an alternative source of livelihood, with financial, technical and logistic support being provided by Union Ministry of Science & Technology through its different agencies and departments.

Innovative Agriculture

In News

As part of the Azadika Amrit Mahotsav, NITI Aayog is organizing a day-long national workshop on 'Innovative Agriculture' on 25 April, 2022.

Details

- The workshop is expected to bring together stakeholders working in the field of innovative agriculture and natural-farming practices from India and abroad.
- Deliberations will be held in key areas related to the promotion of natural farming, itsrole in soil health restoration and climate change mitigation.
- Natural farming practices are mostly in harmony with the principles of agro ecology advocated by the Food and Agriculture Organization (FAO).
- It offers viable solutions to improve the livelihood of farmers while reducing the environmental impact of chemical agriculture.
- The 2022–23 Budget too announced the promotion of chemical-free natural farming throughout the country, starting with fields within a 5-km wide corridor along the Ganga.

'Kisan Bhagidari, Prathmikta Hamari'

In News

- Ministry of Agriculture and Farmers Welfare is organizing the 'Kisan Bhagidari, Prathmikta Hamari' campaign from 25th to 30th April, 2022 under 'Azadi Ka Amrit Mahotsav' in association of various other Ministries/ Departments of Government of India.
- During the campaign, Department of Agriculture and Farmers Welfare will organize countrywide programs at regional level for farmers.

Details

- The Department of Agriculture Research and Education would be organising a Krishi Mela at each Krishi Vigyan Kendra and field exhibition on natural farming.
- Union Agriculture Minister would be launching country wide workshop on crop insurance organised by common service centre (CSC).

Milestones achieved after Independence

- Green Revolution: Self-sufficiency in food grain production;
- Largest producer of horticulture crops Ginger, Banana, Mango & Papaya;
- Yellow Revolution (Operation Golden Flow);
- Sweet Revolution: Honey Production;
- Improvement in crop irrigation;
- Use of ICT in agriculture;
- Application of remote sensing/ GIS/Drones in agriculture;
- Application of Bio-technology in Agriculture;
- Success of Watershed Development Progarmme;

• Self-sufficiency in seeds and fertilizer;

Nagchala Airport in Mandi

In News

The Ministry of Civil Aviation and Govt. of Himachal Pradesh today signed MoU (Memorandum of Understanding) for development of a Green Field Airport in Nagchala, Mandi District of Himachal Pradesh.

About Airport

- The new greenfield airport at Nagchala, Mandi is being developed under the Greenfield Airport Policy of MoCA and a Joint Venture Company between State Government of Himachal Pradesh and Airport Authority of India has been formed.
- The projected land requirement for airport is 515 acres approx. and the project is estimated to cost around Rs 900 crore excluding the cost of land.

Significance

There are 3 airports i.e. Shimla, Kullu, & Kangra and 5 heliports i.e. Kangnidhar, Shimla, Rampur, Baddi, and SASE(Manali) in Himachal Pradesh that are developed or being developed which would give a massive boost to tourism industry of the state once completed.

AAHAR 2022

In News

With a view to unlock the abundant potential in food and hospitality sector, Agricultural & Processed Food Products Export Development Authority (APEDA), in association with the India Trade Promotion Organization (ITPO), is organising Asia's biggest B2B international food and hospitality fair AAHAR commencing from April 26, 2022 at Pragati Maidan.

About AAHAR

- Theme- Geographical Indication Products.
- AAHAR is a part of the series of export promotion initiatives taken by APEDA, which works under the Ministry of Commerce and Trade, to showcase agricultural and processed food products to the global players in the food and beverages industry as the fair is visited by a large number of importers from different parts of the world.
- Apart from AAHAR, APEDA also organizes national events like Organic World Congress, BioFach India etc to promote agri-exports.

Nation's first portable solar rooftop system

In News

The first portable solar rooftop system in India has been inaugurated at Swaminarayan Akshardham temple complex in Gandhinagar, Gujarat.

Details

• The 10 Photovoltaic PV Port system has been manufactured by New Delhi-based Servotech Power Systems Ltd and designed by the German development agency Deutsche Gesellschaft fur Internationale Zusammenarbeit (GIZ).

- The systems have been installed under the initiative of the Union Ministry of New and Renewable Energy to develop renewable energy cities across India.
- The PV Ports have been manufactured by New Delhi-based Servotech Power Systems Ltd (SPSL), a leading maker of high-end solar products like LEDs, oxygen concentrators and EV charging equipment under the Make in India project, it added.
- The PV Port system is highly cost-effective, requires low maintenance, has a long shelf life of 25-30 years, can be easily installed by a single person and is ideal for the Indian climate.

Fasal Bima Pathshala

In News

- Government of India will conduct 'Fasal Bima Pathshala' under 'Kisan Bhagidari Prathmikta Campaign' during the period from 25 th April to 1st May 2022 as a Jan Bhagidari movement under Azadi Ka Amrit Mahotsav.
- Under sprint campaign from 25th April-1st May 2022, all Implementing Insurance Companies to organize 'PMFBY- Fasal Bima Pathshala' at Block/GP/village on all 7 days of campaign period with participation of at least 100 farmers.

About the Campaign

- **The Campaign aims** to make the farmers aware about key scheme aspects of Pradhan Mantri Fasal Bima Yojana (PMFBY) like basic scheme provisions, importance of insuring the crops and how to avail scheme benefits etc. in the ongoing Kharif Season 2022 along with facilitating farmers in getting benefit of the PMFBY scheme.
- The broader focus will be on importance of PMFBY/RWBCIS (Restructured Weather Based Crop Insurance Scheme) and how farmers can enrol under the scheme and avail the benefit of the scheme.
- The detailed information on crop loss intimations during localized calamities and post-harvest losses, tracking of farmers' application, whom farmers can approach for grievance redressal etc. may be shared and explained in details to farmers for maximum benefit of the scheme.
- One-hour Fasal Bima Pathshala will be conducted at State level in co-ordination with CSC and implementing Insurance Companies.

FAME II scheme

In News

Price Bids of the Grand Challenge tender process under the remodeled FAME II scheme for electric buses were opened by Ministry of Heavy Industries (MHI).

Fame II Scheme

- In June 2021, the FAME II scheme was remodel led and its delivery mechanism changed to better suit the needs of state transport undertakings, especially in their financial ability to afford electric buses.
- A total of INR 10,000 crore has been kept aside for three years till 2022 for the FAME 2 scheme.
- More emphasis was laid on the electrification of public transportation, including shared transport as well.
- Through this scheme, it was decided to support (through subsidies) close to 7000 e-Buses, 5 lakh e-3 Wheelers, 55000 e-4 Wheeler Passenger Cars and 10 lakh e-2 Wheelers.
- Those 3-Wheel (W) and 4-Wheel (W) will be considered for the incentive that is used mainly for public transport or is registered as commercial vehicles.
- In the 2-Wheel (W) segment, more emphasis was laid on the private vehicles.

- To promote the latest technologies, the advantages of incentives and offers were given to the owners of those vehicles which have advanced batteries like a Lithium-ion battery and other new and environmentfriendly technology batteries.
- Under this scheme, it was decided to construct more charging stations, close to 3000 charging stations will be established in metro cities, other million-plus cities, smart cities and cities of Hilly states in the coming years so that at least one charging station can be established within a distance of 3 km.

India Post Payments Bank

In News

The Union Cabinet chaired by the Prime Minister Shri Narendra Modi has approved the revision of project outlay for setting up of India Post Payments Bank (IPPB) from Rs.1435 crore to Rs.2255 crore as equity infusion to meet regulatory requirement.

IPPB

- India Post Payments Bank did a nationwide a launch by on September 1, 2018 with 650 branches/controlling offices.
- **Objective** to build the most accessible, affordable and trusted bank for the common man; spearhead the financial inclusion agenda by removing the barriers for the unbanked and reduce the opportunity cost for the under banked populace through assisted doorstep banking.
- The project supplement Government of India's vision of "less cash" economy and at the same time promote both economic growth and financial inclusion.
- IPPB has enable 1.36 lakh Post Offices to provide banking services and has equipped nearly 1.89 lakh Postmen and Gramin Dak Sevaks with smartphone and biometric device to provide doorstep banking services.
- In Aspirational Districts IPPB has opened around 95.71 lakh accounts having 602 lakh aggregate transaction worth Rs.19,487 crore.
- In Left Wing Extremism (LWE) districts, 67.20 lakh accounts have been opened by IPPB having 426 lakh aggregate transactions worth Rs.13,460 crore.

Significance

- Total financial expenditure involved under the proposal stands at Rs.820 crore.
- The decision shall help India Post Payments Bank pursue its objective of furthering financial inclusion across India by leveraging the network of Department of Posts.

Framework for FinTech Entity in the IFSCs

In News

'The International Financial Services Centres Authority (IFSCA), in furtherance of its mandate to develop and regulate financial products, financial services and financial institutions in the International Financial Services Centres (IFSC) and to encourage **promotion of financial technologies** ('FinTech') across the spectrum of banking, insurance, securities, and fund management in IFSC has issued a detailed **"Framework for FinTech Entity in the IFSCs".**'

About the Framework

• **AIM** - at giving boost to the establishment of a world class FinTech Hub at GIFT IFSC comparable with other International Financial Centers (IFCs).

- The framework proposes to cover (i) financial technology (FinTech) solutions resulting in new business models, applications, process or products in areas/activities linked to financial services regulated by IFSCA and (ii) advanced/innovative technological solutions which aid and assist activities in relation to financial products, financial services and financial institutions (TechFin).
- The framework provides for a dedicated Regulatory Sandbox for FinTech products or solutions namely IFSCA
 FinTech Regulatory Sandbox and empowers IFSCA to grant Limited Use Authorization within FinTech
 Regulatory Sandbox to the eligible financial technology entities in IFSC.
- This would enable them to apply and avail Grants under the IFSCA FinTech Incentive Scheme 2022.
- The framework also incorporates the Inter Operable Regulatory Sandbox (IoRS) mechanism.
- **IORS** is a proposed mechanism to facilitate testing of innovative hybrid financial products / services falling within the regulatory ambit of more than one financial sector regulators.
- IFSCA will facilitate Indian FinTech's seeking access to foreign markets and foreign FinTech's seeking entry into India.
- The framework proposes a **Regulatory Referral mechanism** which shall be governed as per the provisions of the Memorandum of Understanding (MoU) or collaboration or special arrangement between IFSCA and corresponding overseas Regulator(s).

Global Patidar Business Summit

In News

Prime Minister Shri Narendra Modi will inaugurate the Global Patidar Business Summit (GPBS), being organized by Sardardham, via video conferencing.

About GBPS

- Sardardham is organizing GPBS under 'Mission 2026' to provide an impetus to socio-economic development of Patidar community.
- The Summit is organized every two years. The first two Summits were held in Gandhinagar in 2018 and 2020, and the current Summit is now being held in Surat.
- The main theme of GPBS 2022 is "Aatmanirbhar Community to Aatmanirbhar Gujarat and India".
- **The Summit aims** to bring together small, medium and large enterprises within the community; nurture and support new entrepreneurs and provide training and employment assistance to the educated youth.
- The three day Summit, being organized from 29th April to 1st May, covers various aspects of government industrial policy, MSMEs, start-ups, innovation, among others.

Atal Tunnel receives IBC Best Infrastructure Project award

In News

The Border Roads Organisation (BRO) Engineering Marvel Atal Tunnel built in Rohtang of Himachal Pradesh received Indian Building Congress (IBC) 'Best Infrastructure Project' award in New Delhi.

Atal Tunnel

- The tunnel, built by using the New Austrian Tunneling Method (NATM) was dedicated to the Nation by the Prime Minister Shri Narendra Modi on October 03, 2020.
- It has been equipped with a semi-transverse ventilation system, where large fans separately circulate air throughout the tunnel.

- An emergency tunnel has been integrated into the tunnel cross-section beneath the main carriageway for evacuation during emergencies.
- Fires inside the tunnel will be controlled within an area of 200 metres and fire hydrants are provided at specific locations throughout the tunnel.
- Pollution sensors continuously monitor the air quality in the tunnel and if the air quality in the tunnel is below the desired level, fresh air is injected into the tunnel via two heavy duty fans on each side of the tunnel.

Significance

- The tunnel, besides offering the Armed Forces a strategic advantage by providing an alternate link to the critical Ladakh Sector, has also been a boon for the residents of Lahaul & Spiti District in Himachal Pradesh.
- The region has seen an unprecedented increase in the arrival of tourists, and in a little more than a year, the valley and the state have witnessed exponential growth in the socio-economic domains and the Atal Tunnel is destined to play a defining role in the future development of the region.

MSME Sustainable (ZED) Certification Scheme

In News

Union Minister for Micro, Small and Medium Enterprises Shri Narayan Rane launched the MSME Sustainable (ZED) Certification Scheme.

Features of the Scheme

- ZED has the potential to become a national movement.
- Aims- to provide a roadmap to global competitiveness for the MSMEs of India.
- ZED will not only attempt to improve productivity & performance, it has the capability to change the mindset of manufacturers and make them more environment conscious.
- This Scheme is an extensive drive to enable and facilitate MSMEs adopt Zero Defect Zero Effect (ZED) practices and motivate and incentivize them for ZED Certification while also encouraging them to become MSME Champions.
- Through the journey of ZED Certification, MSMEs can reduce wastages substantially, increase productivity, enhance environmental consciousness, save energy, optimally use natural resources, expand their markets, etc.

Under the Scheme, MSMEs will get subsidy as per the following structure, on the cost of ZED certification:

- Micro Enterprises: 80%
- Small Enterprises: 60%
- Medium Enterprises: 50%
- There will be an additional subsidy of 10% for the MSMEs owned by Women/SC/ST Entrepreneurs OR MSMEs in NER/Himalayan/LWE/Island territories/aspirational districts.
- In addition to above, there will be an additional subsidy of 5% for MSMEs which are also a part of the SFURTI OR Micro & Small Enterprises Cluster Development Programme (MSE-CDP) of the Ministry.
- The MSMEs can also avail a number of other incentives offered for ZED Certification by States & UTs, Financial Institutions etc. and can also apply for free Certification under the MSME KAWACH (COVID-19 Support) initiative.

Conclave on Investment Potential and Future Energy Needs of North East' in Shillong

In News

Minister of State for the Ministry of Development of North Eastern Region (DoNER) Shri B.L Verma, while addressing the 'Conclave on Investment Potential and Future Energy Needs of North East' in Shillong, Meghalaya highlighted the central government's efforts in realizing the potential of the North Eastern Region (NER).

About Conclave

- The NER has the potential of generating more than 128,000 megawatt of renewable energy.
- The conclave is part of MDoNER's week-long North East Festival to commemorate Azadi Ka Amrit Mahotsav.
- The aim is to leverage discussions on various aspects fundamental to the development of the North East region.
- The North East Festival will be celebrated from 28th April 2022 till 4th May 2022.
- Each of the seven days will be based on separate themes.

PM-DevINE Scheme

- Prime Minister's Development Initiative for North-East, PM-DevINE was announced by the Union Minister for Finance & Corporate Affairs, while presenting the Union Budget 2022-23.
- An initial allocation of Rs. 1,500 crore will be made for the new scheme. It will fund infrastructure, in the spirit of PM GatiShakti, and social development projects based on felt needs of the North-East.
- This will enable livelihood activities for youth and women, filling the gaps in various sectors.

India-UAE Comprehensive Economic Partnership

In News

- The historic India-UAE Comprehensive Economic Partnership Agreement (CEPA) which was signed between the two nations on 18 February 2022, officially entered into force recently.
- Department of Commerce lagged off the first consignment of goods comprising of Jewellery products from India to UAE under the India-UAE CEPA at a function in New Customs House in New Delhi.

About CEPA

- CEPA is expected to increase the total value of bilateral trade in goods to over US\$100 billion and trade in services to over US\$15 billion within five years.
- The agreement had envisioned a target of USD 100 billion worth of trade, given the size of India's market and the access that UAE would give to India, much more could be achieved.
- India will benefit from preferential market access provided by the UAE on over 97 % of its tariff lines which account for 99% of Indian exports to the UAE in value terms particularly from labour-intensive sectors such as Gems and Jewellery, Textiles, leather, footwear, sports goods, plastics, furniture, agricultural and wood products, engineering products, pharmaceuticals, medical devices, and Automobiles.

Open Network for Digital Commerce (ONDC)

In News

The Indian government is all set to launch an Open Network for Digital Commerce to end the dominance of the USbased e-commerce companies like Amazon and Walmart in India.

ONDC

• The ONDC platform will let buyers and sellers interact with each other and transact online.

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- ONDC is an initiative of the Department for Promotion of Industry and Internal Trade (DPIIT) under the Ministry of Commerce and Industry.
- With the launch of ONDC, the government aims to promote an open platform for exchange of goods and services through electronic networks.
- The open network platform will be launched in five cities including Delhi NCR, Bengaluru, Bhopal, Shillong and Coimbatore.
- India's ONDC plan aims to onboard 30 million sellers and 10 million merchants online.
- The plan is to cover at least 100 cities and towns by August. The government will focus on apps in local languages for buyers and sellers.
- The apps would highlight small merchants and rural consumers.
- Banks such as State Bank of India, ICICI Bank and Bank of Baroda have already committed total investments of 2.55 billion rupees.

Why ONDC?

- At present, only two large e-commerce players (Amazon and Flipkart) control more than half of the country's e-commerce trade.
- This creates monopolies and gives rise to issues like limited access to the market, preferential treatment to some sellers, and a squeeze on the supplier margins. To prevent such issues ONDC is being launched.

Operation Satark

In News

Railway protection force had started "**Operation Satark**" with an objective of taking action against illicit liquor/FICN/illegal tobacco products/unaccounted gold/cash/precious items/ any other items being transported through railway network for the purpose of tax evasion/smuggling/commission of crime/acts of terror.

Operation Satark

- It was launched from 5th April to 30th April 2022 wherein 26 cases of transportation of illegal tobacco products were detected with seizure of tobacco products worth more than Rs 44 Lakhs and arrest of 14 persons involved.
- 177 cases of transportation of illicit liquor were intercepted with arrest of 97 persons and seizure of illicit liquor worth about Rs 18 Lakhs.
- Unaccounted gold/silver jewellery and unaccounted cash is transported through rail for the purpose of tax evasion.
- RPF detected 23 such cases of tax evasion and handed over unaccounted cash/gold/silver worth about Rs 2.60 Crores to the respective tax authorities.

About RPF

- Railway Protection Force is an armed force of the union entrusted with the security of railway property, passenger area and passengers.
- It is the lead security agency in the field of railway security having a pan India reach.
- Indian Railways, being the primary transporter of the nation, is likely to be used by tax evaders, smugglers, gun runners, and forces inimical to the nation to transport illegal items to different parts of the country for acting on their nefarious designs.

Coal Gasification

In News

The Government has prepared a Mission document for Coal Gasification of 100 MT by 2030.

Benefits

- India has a reserve of 307 Billion tones of thermal coal and about 80% of coal produced is used in thermal power plants.
- With environment concerns the Government has prepared a Mission document for Coal Gasification of 100 MT by 2030 since Coal gasification is considered as cleaner option compared to burning of coal.

Process of Gasification

- Gasification facilitates utilization of the chemical properties of coal.
- Sys Gas produced from coal can be used to produce Gaseous Fuels such as Hydrogen (Blue coupled with CCUS), Substitute Natural Gas (SNG or Methane), Di-Methyl Ether (DME), Liquid Fuels such as Methanol, Ethanol, Synthetic diesel and Chemical like Methanol derivatives, Olefins, Propylene, Mono-Ethylene Glycol (MEG), nitrogenous fertilizers including Ammonia, DRI, Industrial Chemicals along with Power Generation.
- These products will help move towards self-sufficiency under Atmanirbhar Bharat Abhiyaan.
- In line with the above objective, Ministry of Coal has taken initiative for utilizing coal through coal gasification and has prepared National Mission document to achieve 100 MT coal gasification by year 2030.

Chip Designing in India

In News

Ministry of Electronics and Information Technology (MeitY) with its series of graded and proactive steps, is in the process of systematic overhaul of semiconductor design approach at 120 premier academic institutions across the country to debut an era of creative enablement where anyone with innate skills, anywhere in the country can get the semiconductor chips designed.

Special Manpower Development Programme for Chips to System Design

- Understanding chip design as a strategic necessity, a pilot deployment was successfully tested by MeitY earlier in 2021.
- A centralized design facility at C-DAC was enabled for remote access by over 50,000 engineering students at 60 academic institutions for designing chips.
- Leapfrogging, MeitY now intends to make accessible a centralized chip design infrastructure to be made available at India Chip Centre setup at C-DAC, to train 85000+ B.Tech, M.Tech and PhD students at 120 academic institutions across the country in chip design area for next 5 years.
- At centralized design facility hosted at India Chip Centre (C-DAC), not only the most advanced tools for entire chip design cycle (i.e. Front-end design, Back-end design, PCB design & analysis etc. for Digital, Analog, RF & Mixed Signal designs), going up to 7nm or advanced node but also an arrangement of instructor-led/ online trainings on design flows by industry professionals are being made available for next 5 years.

Benefits

This will strengthen & supplement the Indian talent pool designing the leading-edge chips for semiconductor giants with complete ownership of some of these chips in the country.

Regional Conference of Cluster Based Business Organizations (CBBOs)

In News

Union Minister of State for Agriculture and Farmers' Welfare Shri Kailash Choudhary will inaugurate Regional Conference of Cluster Based Business Organizations (CBBOs) in Jaipur.

Objective

- To provide holistic and broad-based supportive ecosystem to form and promote 10,000 new FPOs.
- The scheme envisages adequate hand holding and financial support to the FPOs for five years. Through the Scheme, farmers will be able to access quality inputs, technology, credit, and marketing through economies of scale.

About the Conference

- The conference is farmer centric in nature and helpful for small and marginal farmers to make them economically empowered and for creating awareness on new production technology, services and marketing including value addition and better income generation for farmers.
- Various issues will be discussed in the conference including discussion on expectations from CBBOs, Knowledge sharing by CBBOs on best practices, discussion on Training and Capacity Building of Stakeholders, Open discussion on various issues/ suggestions related to successful implementation of the scheme etc.

Pradhan Mantri Formalisation of Micro food processing Enterprises (PMFME) Scheme

In News

Union Minister of Food Processing Industries launched Three One District One Product (ODOP) brands under the Pradhan Mantri Formalisation of Micro food processing Enterprises (PMFME) Scheme in New Delhi.

About PMFME

- It is a centrally sponsored scheme that **aims** to enhance the competitiveness of existing individual microenterprises in the unorganized segment of the food processing industry and to promote formalization of the sector and provide support to Farmer Producer Organizations, Self Help Groups, and Producers Cooperatives along their entire value chain.
- With an outlay of Rs. 10,000 crore over a period of five years from 2020-21 to 2024-25, the scheme envisions to directly assist the 2,00,000 micro food processing units for providing financial, technical, and business support for up-gradation of existing micro food processing enterprises.

Benefits

To encourage the micro food processing enterprises (MFPEs) across the country about the vision, efforts, and initiatives of the Government to formalize, upgrade and strengthen them and take them a step closer to Aatmanirbhar Bharat. MFPEs are encouraged to come forth and avail branding support under this initiative.

India sees the emergence of the 100th unicorn

In News

The wave of Unicorns in India has soared to new heights as the country witnessed the birth of its 100th Unicorn on 2nd May 2022. Today, 1 out of every 10 unicorns globally have been born in India.

About Unicorn

- The term 'Unicorn' refers to the rarest of the rare startups who become Unicorns attaining a valuation of more than USD 1 billion.
- The Indian Startup Ecosystem, the third-largest in the world in number of Unicorns, as of 5th May 2022, is home to 100 unicorns with a total valuation of USD 332.7 billion.
- In the first four months of 2022, India has given birth to 14 unicorns with a total valuation of USD 18.9 billion.

Start Up India Initiative

- Launched on 16th January, 2016, the Startup India Initiative has rolled out several programs with the objective of supporting entrepreneurs, building a robust startup ecosystem and transforming India into a country of job creators instead of job seekers.
- These programs are managed by a dedicated Startup India Team, which reports to the Department for Industrial Policy and Promotion (DPIIT).

Go Kasht

In News

Shri Parshottam Rupala, Union Minister for Fisheries, Animal Husbandry and Dairying handed over cow dung log machine, "**Go Kasht**" machine to Project Arth and ENACTUS IIT Delhi students.

Cow Dung machine

- Cow dung log machine is used to manufacture cow dung-based fuel wood in long log-like shape.
- A mixture of cow dung and cattle waste (like dried waste paddy) is inserted in the inlet(hopper) of this machine.
- The machine then breaks it down, mixes it, and compresses the mixture in the shape of a log.
- This log is then sun dried and can be later used a fuel wood in various situations.

Benefits

- This machine can process 3000 kg of cow dung every day to produce 1500 kg of cow dung-based logs that can be used as firewood for the cremation of 5-7 bodies, saving roughly 2 trees in each cremation.
- That further means it can help the gaushala to clear roughly 150,000 to 170,000 kg of cow dung every month.

Project Arth

- The conventional way of wood based cremations causes large scale deforestation and air pollution in the cities of India.
- Arth targets to replace wood as a fuel, with modified cow-dung logs for conducting the Hindu practice of cremations in the crematoriums of India.

PM MITRA Scheme

In News

A National Conference on PM Mega Integrated Textile Regions and Apparel Park(PM MITRA) Parks Scheme was organized by Ministry of Textiles on 4th May, 2022.

PM Mitra Scheme

- The PM MITRA scheme is Inspired by the 5F vision of Hon'ble Prime Minister Farm to Fibre to Factory to Fashion to Foreign.
- PM MITRA Parks will offer an opportunity to create an integrated textiles value chain right from spinning, weaving, processing/dyeing and printing to garment manufacturing at 1 location
- Integrated Textile Value chain at 1 location will reduce logistics cost of Industry
- Intended to generate ~1 lakh direct and 2 lakh indirect employment per park
- Sites for PM MITRA Parks will be selected by a Challenge Method based on objective criteria.
- PM MITRA Park will offer the opportunity to create an Integrated Textiles Value Chain right from spinning, weaving, processing/dyeing and printing to garment manufacturing etc. at one location and will reduce logistics cost of Industry.

New grades of Fertilizers

In News

Shri Bhagwanth Khuba, Union Minister of State for Chemicals and Fertilizers & New and Renewable Energy, Govt. of India visited RCF Trombay Unit at Chembur, Mumbai and launched the newly manufactured NPK grade of Rashtriya Chemicals and Fertilizers limited (RCF) – Suphala 10:26:26.

NPK grade of RCF - Suphala 10:26:26

Features

- It contains Phosphorus and Potassium in one of the highest ratios among the NPK fertilisers.
- It contains 7% Nitrogen in the ammonical form, 22.5% out of 26% Phosphate in the water soluble form and the entire 26% Potash available in the water soluble form.

Application

"Suphala 10:26:26" is suitable to be used for all crops and soils. It is one of the preferred fertilizer for Sugarcane, Paddy, Wheat, Maize, Potato, Cotton, Groundnut, Soybean, Grapes, Pomegranates, Banana, Vegetables, Tobacco, Chilies & pulse crops.

Benefits

- Improves the root growth and development and maximises plant vigour.
- Increases the number of tillers in case of paddy, sugarcane, wheat and number of branches in cotton, fruits and vegetables.
- Improves the number of fruits, tubers, bolls, grains.
- Improves the sugar content in sugarcane and starch content in potatoes.

VIPULA 10:10:10:

Features

- With an aim to double the farmers income, reduce nutrient losses to the environment and target precision agriculture an innovative suspension fertilizer VIPULA NPK 10:10:10 has been formulated in –house at RCF R&D.
- Efficient use of nutrients in the fertilizers sector is the basis of a green economy to produce more food while reducing environmental pollution.

Application

- The product has been tested successfully at various state agricultural universities and Indian Council of Agriculture Research (ICAR) institutes. VIPULA is suitable for all crops and various agro climatic regions.
- The liquid concentrate form of VIPULA ensures better availability and utilization of nutrients by the plants. It is a homogenous formulation which can be applied either through soil drenching, drip irrigation and foliar spray.

Benefits

- An yield increase to an extent of 30% in Wheat and 21% in rice crop has been observed. The benefit cost ratio of the VIPULA is around 2.5.
- VIPULA increases the shelf life of the crop produce
- It is economically priced at Rs 250 for a bottle of 250 ml, which is sufficient for 1 acre of land.

NEHHDC and Etsy sign a MoU support small and traditional artisans from the North East

In News

Etsy, the global marketplace for unique and creative goods, has partnered with the North Eastern Handicrafts and Handloom Development Corporation (NEHHDC) and signed a Memorandum of Understanding (MoU) to support small sellers, weavers and artisans, by providing them with market access and enablement support.

About MoU

- As a part of the Memorandum of Understanding (MoU), Etsy will work with the NEHHDC to develop enablement programs, specifically designed for artisans from the North East including modules on online selling and entrepreneurship and the opportunity to access a wider market for their products.
- Etsy will provide digital enablement services to these sellers and conduct training workshops to familiarise them with Etsy and how to sell on the marketplace.
- This partnership will help indigenous products from the area (from categories like textiles, cane and bamboo products, accessories and more) become available online for millions of buyers on the Etsy platform.

About Etsy:

- Etsy, Inc. founded in 2005 and is headquartered in Brooklyn, New York, operates two-sided online marketplaces that connect millions of passionate and creative buyers and sellers around the world.
- The Etsy.com, its primary marketplace, is the global destination for unique and creative goods.
- For sellers, Etsy offers a range of tools and services that address key business needs.

About NEHHDC:

- Incorporated in 1977, the North Eastern Handicrafts and Handloom Development Corporation (NEHHDC) is an organisation that attempts to develop and promote the indigenous crafts of the North Eastern region by connecting craftsmen to prospective markets and consumers and generating economic, cultural and social opportunities for creators while adding cultural value for consumers.
- The corporation is under the administrative control of the Ministry of Development of North Eastern Region (DoNER), Government of India.

Social Security Schemes

In News

• Pradhan Mantri Suraksha Bima Yojana (PMJJBY), Pradhan Mantri Jeevan Jyoti Bima Yojana (PMSBY) and Atal Pension Yojana (APY) complete 7 years of providing social security net.

• PMJJBY, PMSBY and APY were launched by Prime Minister Shri Narendra Modi on 9th May, 2015 from Kolkata, West Bengal.

Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)

- Scheme: PMJJBY is a one-year life insurance scheme renewable from year to year offering coverage for death due to any reason.
- Eligibility: Individuals in the age group of 18-50 years having a savings bank or a post office account are entitled to enroll under the scheme
- Till now, cumulative enrolments under the scheme have been more than 12.76 crore and an amount of Rs. 11,522 crore has been paid for 5,76,121 claims.

Pradhan Mantri Suraksha Bima Yojana (PMSBY)

- **Scheme:** PMSBY is a one-year accidental insurance scheme renewable from year to year offering coverage for death or disability due to accident.
- Eligibility: Individuals in the age group of 18-70 years having a savings bank or a post office account are entitled to enroll under the scheme.
- Benefits: Accidental death cum disability cover of Rs.2 lakh (Rs.1 lakh in case of partial disability) for death or disability due to an accident.
- As of now, the cumulative enrolments under the scheme have been more than 28.37 crore and an amount of Rs. 1,930 crore has been paid for 97,227 claims.

Atal Pension Yojana (APY)

- **Background:** The Atal Pension Yojana (APY) was launched to create a universal social security system for all Indians, especially the poor, the under-privileged and the workers in the unorganised sector.
- It is an initiative of the Government to provide financial security and cover future exigencies for the people in the unorganized sector.
- APY is administered by Pension Fund Regulatory and Development Authority (PFRDA) under the overall administrative and institutional architecture of the National Pension System (NPS).
- Eligibility: APY is open to all bank account holders in the age group of 18 to 40 years and the contributions differ, based on pension amount chosen.

Significance

- These three social security schemes are dedicated to the welfare of the citizens, recognising the need for securing human life from unforeseen risks/losses and financial uncertainties.
- In order to ensure that the people from the unorganised section of the country are financially secure, the Government launched two insurance schemes –Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) and Pradhan Mantri Suraksha Bima Yojana (PMSBY); and introduced Atal Pension Yojana (APY) to cover the exigencies in the old age.

Air Cargo Forum India Annual Event 2022

In News

- Union Minister of Civil Aviation Shri Jyotiraditya M. Scindia attended the annual event of Air Cargo Forum India (ACFI) as the chief guest.
- The theme of the annual event was "10 Million: Vision 2030; Stimulating, Scaling, Steering Air Cargo".

Highlights of the forum

• Indian Cargo Sector has seen a growth rate of 9-10% since 2013-14.

- During the last 2 years, airlines have witnessed 520% increase in cargo revenue.
- As of today, Indian Cargo revenue stands at INR 2,000 crore with 3.1 million metric tonnage having a CAGR of 13%. Today, India has 21 international and 35 domestic cargo terminals.
- To achieve the target of 10 million metric ton in cargo, the industry players need to focus on transportation of smaller cargo loads from Tier II & III cities to metros which can be achieved by acquisition of smaller size aircrafts.
- To facilitate this, we are also establishing 33 new domestic cargo terminals by 2024-2025 which will allow our cargo sector to flourish and grow.
- Ministry of Civil Aviation will be spending close to INR 98,000 crores over 4 years in terms of setting up new greenfield airports and expansion of existing brownfield airports.

About Forum

Air Cargo Forum India (ACFI) is an association of various stakeholders of Air Cargo Logistic Supply Chain Trade and Industry i.e. Freight Forwarders, Airlines, Airport Operators, Cargo Terminal Operators, Customs House Agents and Express Industry established on 14th September 2012.

AIM-PRIME Playbook

In News

The AIM-PRIME Playbook was launched at the Dr. Ambedkar International Center, New Delhi, in the presence of the Chief Guest Mr. Suman Bery Vice-Chair, NITI Aayog.

About AIM-PRIME

- The AIM PRIME (Program for Researchers in Innovation, Market Readiness and Entrepreneurship) program was aimed at promoting early-stage science-based, deep technology ideas to market through training and guidance over a period of 12 months using a blended learning curriculum.
- Other program benefits include the PRIME Playbook, a guide for science-based entrepreneurs and ventures, the PRIME Library, a curated resource shared by the faculty and expert mentors associated with the program, and the PRIME Videos, an open-access video collection of the lectures delivered as part of the PRIME Classroom.
- Programs like AIM PRIME can nurture vehicles that can attract capital into high risk-reward pursuits something that can be important for achieving higher growth rates in the country.

Focus Area

- **The AIM-PRIME program** was focused on promoting science-based deep-tech entrepreneurship, which is a knowledge intensive pursuit.
- The first year of AIM PRIME was also aimed at exploring and demonstrating methods and content for accelerating such startups that are India-appropriate, and making it available to all innovators and entrepreneurs.

About AIM

- Atal Innovation Mission (AIM) is Government of India's flagship initiative to create and promote a culture of innovation and entrepreneurship across the length and breadth of our country.
- AIM's objective is to develop new programmes and policies for fostering innovation in different sectors of the economy, provide platforms and collaboration opportunities for different stakeholders, and create an umbrella structure to oversee the innovation & entrepreneurship ecosystem of the country.

About Venture Center

- The Venture Center in Pune is India's leading science-based business and inventive enterprises incubator.
- It is a non-profit incubator hosted by the CSIR-National Chemical Laboratory, Pune and part of the Pune Knowledge Cluster.
- The Venture Center has won National Awards for incubation and building the startup ecosystem in 2015 and 2019.
- It also received the Asian (AABI) Incubator of the Year Award for 2018.

Centre of Excellence for Khadi

In News

Union Minister for Micro Small and Medium Enterprises Shri Narayan Rane will inaugurate the first Centre of Excellence for Khadi in New Delhi.

About COEK

- The Centre of Excellence for Khadi is setup at National Institute of Fashion Technology as a hub in Delhi and spokes in Bangalore, Gandhinagar, Kolkata, and Shillong.
- **The objective** is to design apparel, home furnishing and accessories for people of all generation and creating benchmarked design processes of global standards of quality, design, and merchandising.
- Centre of Excellence for Khadi is in the process of developing Knowledge Portal for Khadi to disseminate design directions to reach out to all the Khadi Institutions.
- Knowledge portal entails design directions on—colour, silhouettes, weave, surface, textures, prints, closures, size chart and trims and finishes.

About Khadi

- Khadi spirit means the fellow-feeling with every human being on earth" Mahatma Gandhi.
- Handspun and hand-woven, Khadi fabric became a tool to collectivize people and unify them at the behest of Mahatma Gandhi thousands of people formed collectives to create Khadi fabric and dress themselves in comfortable Khadi.
- Many such collectives formalized into institutions that went on to be certified by Khadi Village and Industries Commission (KVIC) from 1957 onwards.

Pilot project for Skilling tribal youth launched

In News

Recently, launched Rural Tribal Technical Training Program is a small step in this direction, said Minister of State, Ministry of Skill Development & Entrepreneurship, Electronics and IT, Rajeev Chandrasekhar at the launch of Pilot Project for Skilling Tribal Youth - Rural Tribal Technical Training at the Centre for Research and Industrial Staff Performance CRISP, Bhopal.

Details

- The pilot project envisages training for about 250 beneficiaries of 17 clusters of 17 districts selected from 6 states of India Madhya Pradesh, Chhattisgarh, Gujarat, Rajasthan, Maharashtra and Odisha and will be organized at Vikas Bharti, Gumla, Jharkhand.
- Training will be provided to the beneficiaries in 5 disciplines- electrical and solar energy, agricultural mechanization, e-governance, plumbing and masonry, two wheeler repair and maintenance.
- This training will also enable the youth to start their own business, thus generating more employment opportunities for other youth as well.

- Launching the **Rural Tribal Technical Training Program** (Grameen Udhyami Project) of the Ministry of Skill Development & Entrepreneurship, he said that the government is giving priority to skilling as an important aspect to provide more opportunities to rural youth and to strengthen local village economies.
- Extensive training with multiple skills will be extended to 50,000 to one lakh students in 50 tribal districts in the coming years.

4th meeting of National Startup Advisory Council (NSAC)

In News

- The Minister of Commerce and Industry, Consumer Affairs, Food and Public Distribution and Textiles, Shri Piyush Goyal chaired the 4th meeting of National Startup Advisory Council (NSAC) in New Delhi.
- The Minister also launched NavIC Grand Challenge which aims at promoting adoption of NavIC as geopositioning solution, a key proponent for digital Aatmanirbharta.

About NSAC

Department for Promotion of Industry and Internal Trade (DPIIT) had constituted the National Startup Advisory Council to advise the Government on measures needed to build a strong ecosystem for nurturing innovation and startups in the country to drive sustainable economic growth and generate large scale employment opportunities.

World Telecommunication & Information Society Day (WTISD) 2022

In News

Centre for Development of Telematics (C-DOT), the premier Telecom R&D centre of the Department of Telecommunications, Ministry of Communications, Government of India, organized a webinar on "Centre of Innovation (COI) for IoT/M2M" on 17 May 2022 to mark the observance of "World Telecommunication & Information Society Day (WTISD)".

About WTISD

- Theme- Digital technologies for Older Persons and Healthy Ageing".
- Telecommunication and Information & Communication Technologies (ICTs) are playing a key role in supporting people to stay healthy, connected and independent physically, emotionally and financially and ensuring the overall sustainability of economic and health systems.
- The WTISD-2022 webinar is focused on the role of "Centre of Innovation for IoT/M2M" in evolving an indigenous M2M/IoT ecosystem with contribution from relevant stakeholders and aims to invite industry, startups, academia and broader Telecom fraternity to come forward, collaborate and contribute towards the digital transformation with technological innovations.

The State of Inequality in India

In News

- The State of Inequality in India Report was released by Dr Bibek Debroy, Chairman, Economic Advisory Council to the Prime Minister (EAC-PM).
- The report has been written by the **Institute for Competitiveness** and presents a holistic analysis of the depth and nature of inequality in India.

Major Findings

• Progress has been made in various indicators —- from improved labour participation (pre-Covid), health infrastructure and enrolment ratio of students to child mortality — wealth concentration has worsened.

- A 44.4% wealth concentration in the highest quintile in urban areas is contrasted with a meagre 7.1% concentration in that in rural India.
- Nutrition profile among children has improved compared to 2015-16 (NFHS 4), like stunting in children has gone down from 38.4% and wasting from 21%, and 7.7% are severely wasted. Additionally, 32.1% of children (under five years) were reported to be underweight.
- As per Rural Health Statistics 2019-20, as of March 2020, there are 155404 Sub Centres (SC), 24918 Primary Health Centres (PHC), and 5183 Community Health Centres (CHC) in rural India.
- In 2019-20, the Gender Parity Index was more than 1 across all levels of education at the all-India level. The Gender Parity Index (GPI) based on GER reflects the representation of females in schools in relation to the population of girls in the corresponding age group. A value of 1 shows a favourable picture, while anything less than 1 shows relative underrepresentation.
- India's unemployment rate is 4.8% (2019-20), and the worker population ratio is 46.8%.
- In 2019-20, among different employment categories, the highest percentage was of self-employed workers (45.78%), followed by regular salaried workers (33.5%) and casual workers (20.71%). The share of self-employed workers also happens to be the highest in the lowest income categories.
- The report compiles information on inequities across sectors of health, education, household characteristics and the labour market. As the report presents, inequities in these sectors make the population more vulnerable and trigger a descent into multidimensional poverty.

Health Sector

- There has been an increase in the number of Sub-Centres, Primary Health Centres, and Community Health Centres, from 1,72,608 health centres in 2005 to 1,85,505 in 2020. As per NFHS-5 (2019-21), 70% of women have received antenatal check-ups in the first trimester.
- 78% of women received postnatal care from a doctor or auxiliary nurse within two days of delivery, and 79.1% of children received postnatal care within two days of delivery. Issues of concern remain nutritional deprivation overweight, underweight, stunted and wasted growth.

Education & Household Sector

- According to the report, education and household conditions have improved enormously due to targeted efforts through several social protection schemes, especially in the area of water availability and sanitation that have increased the standard of living.
- It is emphasised that education and cognitive development from the foundational years is a long-term corrective measure for inequality.
- By 2019-20, 95% of schools have functional toilet facilities on the school premises (95.9% functional boy's toilets and 96.9% functional girl's toilets). 80.16% of schools have functional electricity connections.
- In terms of improvement in household conditions, emphasis on providing access to sanitation and safe drinking water has meant leading a dignified life for most households.
- According to NFHS-5 (2019-21), 97% of households have electricity access, 70% have improved access to sanitation, and 96% have access to safe drinking water.

41st edition of Hunar Haat

In News

The 41st edition of Hunar Haat, an effective campaign of "Acclamation to Art" and "Splendour to Skill", is being organised in Agra, Uttar Pradesh from May18 to 29,2022.

Details

- More than 800 artisans and craftsmen from 32 States and Union Territories of the country are participating in this 12-day "Hunar Haat", organised at Shilpgram, Tajganj in Agra.
- "Hunar Haat" has become a "credible and consummate" platform to strengthen Prime Minister Shri Narendra Modi's call for "Vocal for Local" and "Self-reliant India", on the other hand "Hunar Haat" has been playing a pivotal role in "Preservation, Protection, Promotion" of centuries old rich legacy of art and craft of the country.
- "Hunar Haat" has given employment and self-employment opportunities to about 10 lakh 50 thousand artisans and craftsmen from all sections of the society in the last 6 years.
- "Hunar Haat" is also available at virtual and online platform http://hunarhaat.org and Government-e-Marketplace (GeM) portal of Commerce Ministry, Government of India.

Project 'NIGAH'

In News

Chief Commissioner, Delhi Customs Zone, Shri Surjit Bhujabal inaugurated project 'NIGAH' at ICD Garhi Harsaru, Gurugram.

About Project

- It is an initiative to track container by using ICTM (ICD Container Tracking Module) which will help in better visibility of the container movement inside the ICD.
- It will help Customs to expedite long standing containers and monitor timely clearances, thereby enhancing Ease of Doing Business along with ensuring lead preventive checks.
- ICTM has been developed in collaboration with the Custodian M/s. GRFL.

100 Million Tonnes Coal Gasification by 2030

In News

Addressing the National Mineral Congress as the Chief Guest, Shri VK Tiwari, Additional Secretary, Ministry of Coal, said that the Ministry has prepared a National Mission document to achieve 100 MT Coal Gasification by 2030. "Coal gasification is future.

Coal Gasification

- It is considered as cleaner option compared to burning of coal.
- Gasification facilitates utilization of the chemical properties of coal.
- **Process:** Coal gasification is a process in which coal is partially oxidised with air, oxygen, steam or carbon dioxide to form a fuel gas.
- This gas is then used instead of piped natural gas, methane and others for deriving energy.
- In-situ gasification of coal or **Underground Coal Gasification (UCG)** is the technique of converting coal into gas while it is still in the seam and then extracting it through wells.

Indian Business Portal - e-commerce marketplace

In News

Union Minister of State for Commerce & Industry Smt. Anupriya Patel launched the Indian Business Portal - An International Trade Hub for Indian Exporters and Foreign Buyers.

About the portal

- Indian Business Portal is the only such marketplace that is exclusive for exporters registered in India and is custom-built to support exporters with a range of bespoke features and relevant partners integrated to build this ecosystem.
- FIEO in partnership with GlobalLinker, has designed and developed the "Indian Business Portal", an International Trade Hub for Indian Exporters and Foreign Buyers.
- This is a B2B digital marketplace to empower SME exporters, artisans and farmers to identify new markets for their products and grow their sales globally.
- Indian Business Portal will be a big encouragement to Indian Startups, SMEs, Artisans & Farmers (GI Products), and Service providers to take their first step toward the exports.
- The platform will facilitate the enhancement of India's trade linkages for the International markets".
- The portal has a diverse product mix i.e Consumer & Lifestyle Products, Industrial Products, Business Services and Geographical Indication (GI) products.
- This portal holds special value for artisans and farmers' products dealing in Indian GI and handicraft products. India has about 370 GI-certified products across various categories.

Strategic objectives of Indian Business Portal:

- Digitizing Indian Exporters and help them become discoverable online
- Promoting exports from all Indian States
- Showcasing India's strength in wide range of Products & Services
- Encouraging virtual meetings between buyers and sellers
- Providing a trusted network of Indian Exporters to Foreign Buyers

North India's First Biotech Park

In News

Union Minister, Dr. Jitendra Singh inaugurates North India's First Biotech Park at Ghatti, Kathua district, J&K.

BioTech Park

- This is the historic day for Kathua as the name of Kathua is now listed among those developed regions of India where biotech parks have been established, attracting innovations and research not only from the country but from the whole world.
- The Biotech Park would act as hub for incubation of new ideas and will act as a robust platform to support the Agri-entrepreneurs, Startups, Progressive farmers, scientists, scholars and students not only from Jammu & Kashmir and Ladakh but also from nearby States of Punjab, Haryana and Himachal Pradesh.
- The facilities like herbal extraction, fermentation, analytical lab., distillation, micro-propagation, plant tissue culture would be available in Biotech Park, Ghatti Kathua besides the provision of technology incubation, training & skill development.
- The park is jointly funded by department of Biotechnology, Govt. of India, Ministry of Science & Technology and Jammu & Kashmir Science, Technology & Innovation Council was started in February 2019.
- CSIR-Indian Institute of Integrative Medicine, (CSIR-IIIM) Jammu has been entrusted with the responsibility of implementation of this project.
- This park will carry out research on biodiversity, medicinal and aromatic plants of Jammu and Kashmir and Ladakh, and it will also promote green category businesses.

Siginificance

- These Biotechnology Parks offer facilities to Scientists, and Small and Medium sized Enterprises (SMEs) for technology incubation, technology demonstration and pilot plant studies for accelerated commercial development of Biotechnology.
- The Biotech Parks of J&K are among 9 Biotechnology Parks supported by Department of Biotechnology in various States.
- The Biotechnology has made significant impact on the socio-economic developments worldwide with contributions in various sectors of biotechnology such as health care, agriculture, process industry, environment and service sectors.
- The Indian biotechnology industry is one of the fastest growing knowledge based economies and is expected to play a vital role in shaping India's economy.
- India is uniquely positioned to harness the immense potential that biotechnology offers for transforming all aspects of life globally.
- The Indian biotech industry is among the top 12 destinations in the world and ranks second in Asia after China.

Atal New India Challenge (ANIC)

In News

Atal Innovation Mission, NITI Aayog organised 'National Outreach Meet' for the second edition of the Atal New India Challenge (ANIC) at International Centre Goa, hosted by AIC-GIM Foundation.

ANIC

- ANIC is a flagship program of Atal Innovation Mission, NITI Aayog.
- **The program aims** to seek, select, support and nurture technology-based innovations that solve sectoral challenges of national importance and societal relevance.
- Continuing on the path to promote a culture of innovation and entrepreneurship in the country, AIM has launched the ANIC 2.0 program to proactively collaborate with esteemed Ministries and the associated industries, and provide a steady stream of innovative products & solutions.
- Each ANIC winner will be eligible for a funding of up to INR 1 crore.
- These winners will get mentorship, networking and incubation support by Atal Incubation Centres across the country.
- The sectors in which ANIC 2.0 launched the challenges include E-mobility, Road Transportation, Space Technology and Application, Sanitation, Medical Devices and Equipment, Waste Management and Agriculture.

Paradip port project

In News

- Ministry of Ports, Shipping and Waterways aims for robust investor confidence by underpinning strong vision and leadership from long term strategic infrastructure plan including a pipeline of investable projects that are economically, socially and environmentally sustainable and practically deliverable.
- One of those visionary initiatives is capital intensive **project at Paradip port** which will transform the port into a world-class modern port which will have capability to handle capsize vessel.

About the project

- The project involves deepening and optimization of inner harbour facilities including development of western dock on build, operate and transfer (BOT) basis under Public-Private Partnership (PPP)mode at Paradip Port.
- The estimated cost of the project is Rs 3,004.63 crore.
- This includes development of the new Western Dock on BOT basis and capital dredging by the selected concessionaire at a cost of Rs 2,040 crore and Rs 352.13 crore respectively; and Paradip Port's investment will be to the tune of Rs 612.50 crore towards providing Common Supporting Project Infrastructure.
- The project will enhance the Port's ability to handle Cape Size vessels, will contribute to Port's capacity addition of 25 MMTPA and will result in improvement in the Port efficiency, better cargo handling, increased trade and also lead to socio-economic growth including employment generation.

Significance

- The project will facilitate de-congestion of the port, reduce sea freight making coal imports cheaper, and boost the industrial economy in the hinterland of the port leading to creation of job opportunities.
- The port, after the project, can easily handle very large ships for which 18 metre draft is required resulting in reduction in logistics cost and will boost EXIM trade in the current global competitive environment.

Paradip Port

- Paradip Port Auhtority was commissioned in 1966 as a mono commodity port for export of iron ore.
- In the last 54 years, the Port has transformed itself to handle a variety of EXIM cargo which include iron ore, chrome ore, aluminium ingots, coal, POL, fertilizer raw materials, lime stone, clinker, finished steel products, containers, etc.

3rd Global Organic Expo 2022 starts in New Delhi

In News

- The 3rd Global Organic Expo 2022 begins at IARI, Pusa, New Delhi.
- It is set to be a significant platform for Organic Producers, Aggregators, Processors, Value Chain Integrators, and Industry Partners by providing a Global level conference with the appropriate theme "Profitability for Humanity.

About Global Expo

- More than 200 organic products and service companies participated in the previous events. It offers a great opportunity for showcasing the work in the field of organics to the world.
- Reducing cost and achieving sustainable productivity through certified organic products and capacity development of organic production systems
- Organic products will focus on creating market linkages between producers and marketers with the ultimate objective of increasing income without any chemical inputs
- Organic Expo allows all organic customers, suppliers, partners, and potential new customers to meet in a very comfortable way in person.
- Global Organic Expo is a platform to explore new clients and an opportunity to have face-to-face interaction with existing clients, suppliers, and partners. This event will be a 360-degree approach to understand competition and analyze market
- Parallel to the exhibition GOE will also have a conference to exchange ideas experiences and knowledge in the field of Organics which will create a future path for the growth of organics in India and the world over
- Organic is an ambitious and important field. To speak of the difference between certified organic, noncertified and natural products, public education will be an important part of this Organic Expo

CSIR-NIScPR and CSIR-IIP organize Farmer-Industry-Scientist Meet

In News

A farmer-industry-scientist meet was organized at Lovraj Auditorium, CSIR-IIP Dehradun to disseminate the Kisan Sabha App and Gur Bhatti Technology to the farmers.

Details

- **Objective** To disseminate Kisan Sabha application developed by CSIR-NIScPR and Gur Bhatti Technology developed by CSIR IIP Dehradun, for creating livelihood opportunities in rural areas; and also to develop the business opportunities for the farmers' livelihood creation and enhance their income.
- This exercise will help to boost the dissemination of the technology using Unnat Bharat Abhiyan (UBA) Network.
- As UBA has a large network of higher education institutions and provides the grass-root information about the problems of the rural areas.
- CSIR-IIP has developed advance, simple and affordable Gur Bhatti technology that not only reduces the emission of pollutants but also increases the efficiency of the Gur Bhatti by reducing in the fuel cost by 15% and increasing production by 25%.

Kisan Sabha App

- The app was launched with the objective to uplift livelihood of small and marginal farmers. Discussing about the dependency on middle man and lack of information in supply chain.
- The app can keep the farmers updated by continuously adding recent features.
- About 8 lakhs farmers and numerous other stakeholders have joined in the Kisan Sabha App. In addition,' 3000 SHGs are also joined in this App. The most important feature of this app it is available in 12 regional languages.

Government e Marketplace

In News

The Union Cabinet, chaired by the Prime Minister Shri Narendra Modi has given its approval for expanding the mandate of GeM to allow procurement by Cooperatives as buyers on GeM.

GeM

- The Government e Marketplace (GeM) was launched on August 9, 2016 by the Ministry of Commerce and Industry, Government of India to create an open and transparent procurement platform for Government buyers.
- A Special Purpose Vehicle (SPV) by the name of Government e- Marketplace (GeM SPV) was set up as the National Public Procurement Portal on 17th May, 2017.
- The platform is open for procurement by all government buyers: central and state ministries, departments, public sector enterprises, autonomous institutions, local bodies, etc.
- More than 8.54 lakh registered cooperatives and their 27 Crore members would be benefitted with this initiative. GeM portal is open for all the buyers and sellers across the country.

Features of the portal

• Allowing Cooperative Societies to register on GeM as Buyers would help Cooperatives in getting competitive prices through an. open and, transparent process.

- GeM will provide a dedicated onboarding process for cooperatives, provide the technical infrastructure to support additional users on existing portal, as well as provide assistance to cooperatives for onboarding and transaction journeys, via available contact centers, in-field training and other support services.
- Ministry of Cooperation would issue necessary advisories to encourage the Cooperative Societies to make use of the GeM platform for procurement of goods and services in order to benefit from increased transparency, efficiency and competitive prices.
- To protect interests of the broader seller community on GeM and ensure timely payments, the modalities of payment systems shall be decided by GeM in consultation with the Ministry of Cooperation.

New Guidelines for Central Sector Scheme "Promotion of MSMEs in North Eastern Region and Sikkim"

In News

- The Central Government has approved New Guidelines of Central Sector Scheme "Promotion of MSMEs in North Eastern Region and Sikkim".
- The scheme will be implemented during 15th Finance Commission Cycle (2021-22 to 2025-26).

Features of the Scheme

- The Scheme is envisaged to provide financial support for enhancing the productivity and competitiveness as well as capacity building of Micro, Small and Medium Enterprises (MSMEs) in the NER and Sikkim.
- The Scheme envisages financial assistance to State Governments for setting up new and modernization of existing Mini Technology Centres. Projects for creation of common facilities to supplement manufacturing, testing, packaging, R&D, product and process innovations and training for natural resources such as fruits, spices, agriculture, forestry, sericulture and bamboo etc. available in NER and Sikkim would be given priority.
- Central Government financial assistance will be provided for development of new and existing Industrial Estates, Flatted Factory Complexes. The financial assistance of Government will be 90%.

Ethanol Blended Petrol (EBP) Programme

In News

Government of India, with the aim to enhance India's energy security, reduce import dependency on fuel, save foreign exchange, address environmental issues and give a boost to domestic agriculture sector, has been promoting the Ethanol Blended Petrol (EBP) Programme.

EBP Programme

- The 'National Policy on Biofuels' notified by the Government in 2018 envisaged an indicative target of 20% ethanol blending in petrol by year 2030.
- The target of 20% ethanol blending was advanced from 2030 to 2025-26.
- A "Roadmap for Ethanol Blending in India 2020-25" was also released by the Hon'ble Prime Minister in June, 2021 which lays out a detailed pathway for achieving 20% ethanol blending.
- This roadmap also mentioned an intermediate milestone of 10% blending to be achieved by November, 2022.

Achievements

• India has gained forex impact of over Rs.41,500 crores, reduced GHG emissions of 27 lakh MT and also led to the expeditious payment of over Rs.40,600 crores to farmers.

 With all the initiatives taken by the Government, the EBP Programme is on track to achieve the target of 20% blending by 2025-26.

NETRA (New e-Tracking and Remote Administration)' Portal

In News

Union Minister for Finance and Corporate Affairs Smt. Nirmala Sitharaman will launch the Iconic Day celebrations of the Department of Economic Affairs at Vigyan Bhawan, New Delhi.

Market Ka Eklavya

- NSDL's outreach initiative 'Market Ka Eklavya Express', a programme specially designed to introduce students to the basics of investing and financial markets will be screened during the event.
- 'Market Ka Eklavya Express' lays the foundation of the twin pillars of Financial Independence, namely, Financial Awareness and Financial Discipline in a simple language using relatable examples from everyday life to explain complex concepts.

NETRA

- The New E-tracking and Remote Administration (NETRA) platform has been developed with the objective of efficient management and monitoring of the LOC and Concessional Finance Projects extended by Export-Import Bank of India.
- NETRA is developed to further enhance the speed of delivery of the LOCs by capturing project specific developments that offers need based access to key Indian stakeholders, including the Indian Missions abroad.
- The platform will facilitate in the implementation cycle, project monitoring and reporting by providing all relevant information to the key Indian stakeholders in an automated environment.

IDEAS

- Government of India offers concessional terms of credit to developing countries with the aim to generate goodwill, strengthen long term partnerships and share India's expertise in project planning, design and implementation in diverse areas of socio-economic development.
- Under the Indian Development and Economic Assistance Scheme (IDEAS), the Export-Import Bank of India (Exim Bank) extends concessional credit to partner countries aimed at sharing India's development experience by way of infrastructure development, trade, capacity building and skills transfer.
- Till date, Exim Bank has offered concessional credit aggregating USD 33.56 billion to 66 countries spanning across Africa, Asia, Latin America Oceania and the CIS region.

Ayush Institute gets NABL Accreditation

In News

The Department of Biochemistry and Pathology of National Ayurveda Research Institute for Panchakarma (NARIP), Cheruthuruthy, Thrissur, Kerala has got NABL M(EL)T Accreditation for its clinical laboratory services.

NARIP

- NARIP is one of the premier research Institute under the Central Council for Research in Ayurvedic Sciences, Ministry of AYUSH, Government of India.
- This is the first Institute under CCRAS to get NABL accreditation for its clinical laboratory services.

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• This accreditation of laboratory ensures that citizens get quality health care service especially for those residing in villages, small towns.

London Wine Fair

In News

In a bid to give a boost to the export of Indian wine, the Agricultural and Processed Food Products Export Development Authority (APEDA), which works under the aegis of the Ministry of Commerce and Industry, facilitated participation of ten exporters in London Wine Fair, 2022.

About Wine Fair

- The London Wine Fair organised during June 7 9, which is regarded as one of the world's most important wine trade events.
- Indian exporters who participated in the London Wine Fair are Resvera wines, Sula vineyards, Good drop wine cellars, Hill Zill wines, KLC wines, Soma vine village, Grover Zampa vineyard, Plateaux Vintners, ASAV vineyards and Fratelli vineyards.

Indian Wine Industry

- India is the third-largest market for alcoholic beverages in the world, there are 12 joint venture companies having a licensed capacity of 33,919 kilo-litres per annum for the production of grain-based alcoholic beverages.
- India has exported 2.47 lakh metric tonne of alcoholic products to the world for the worth of USD 322.12 million during 2020-21.
- The major export destinations of Indian alcoholic products in 2020-21 were United Arab Emirates, Ghana, Singapore, Congo, and Cameroon, etc.
- Maharashtra has become an important state for wine manufacturing as there are more than 35 wineries in the state.
- Around 1,500 acres are used for grapes cultivation for wine production in Maharashtra.
- Indian Wine industry has grown at compound annual growth rate of 14 per cent during 2010 to 2017 making it the fastest growing industry under alcoholic beverage in the country.

Twelfth WTO Ministerial Conference

In News

The twelfth WTO Ministerial Conference is all set to begin from 12th June 2022 in Geneva, Switzerland after a gap of almost five years.

Key Areas of Discussion

- The key areas of discussions and negotiations this year's conference include WTO's response to the pandemic, Fisheries subsidies negotiations, Agriculture issues including Public Stockholding for Food security, WTO Reforms and Moratorium on Custom Duties on Electronic Transmission.
- Areas of discussion in agriculture are issues relating to market access, special safeguard mechanism for developing countries to protect domestic agricultural producers against import surges and sudden price falls, through additional import duties, on the lines of a similar safeguard presently available to many developed and few developing countries.

India and WTO

- India is a founding member of the WTO since 1 January 1995 and a member of GATT since 8 July 1948.
- India believes in a transparent and inclusive multilateral trading system and we are committed to work to strengthen the WTO.

Pradhan Mantri National Apprenticeship Mela

In News

With an aim to connect the youth with more opportunities of on-ground training within corporates and further a chance to get employment, the Ministry of Skill Development and Entrepreneurship will be organising the Pradhan Mantri National Apprenticeship Mela every month now on.

Apprenticeship Mela

- The PM National Apprenticeship Mela will take place across 200+ locations in India. More than 1000 companies from across 36+ sectors will be participating in the Mela providing opportunities of being hired as an apprentice within companies. Individuals having a 5th–12th grade pass certificate, a skill training certificate, an ITI Diploma, or a graduate degree can apply for an interview across these trades/opportunities.
- The candidates will be given a choice of 500+ trades, including welders, electricians, housekeepers, beauticians, mechanics, and others.
- The primary goal of this programme is to encourage the hiring of apprentices from these cities, as well as to assist employers in identifying and developing their potential through training and practical skillsets bringing value to their workplace.
- Candidates will also receive Apprenticeship certificates recognised by the National Council for Vocational Education and Training (NCVET) at the end of their training period, which will give them industry recognition.
- AIM- to engage over one million youth as apprentices through these melas.

International Buyer Seller Meet (IBSM)

In News

In a move aimed at realizing Hon'ble Prime Minister Narendra Modi's vision of 'Vocal for Local' with an emphasis on 'Aatmanirbhar Bharat', Agricultural and Processed Food Products Export Development Authority (APEDA) in collaboration with Union Territory of Ladakh today organized an International Buyer Seller Meet (IBSM).

About IBSM

- It aimed at boosting exprots of Apricots and other agri products from Ladakh.
- Eighteen entrepreneurs from UTs of Ladakh and Jammu and Kashmir displayed a range of Apricots and other Agri Products.
- Twenty buyers from India, USA, Bangladesh, Oman, Dubai participated in this event.
- IBSM provided an opportunity to the producers and processors of UT of Ladakh along and Jammu and Kashmir to show case their products to promote the exports as well as their wholesale and retail sale.

APEDA

- APEDA, under its initiative to boost exports from Himalayan Region is encouraging States and UTs to harness their potential of agricultural produce exports.
- A platform will be created for the buyers to get the products directly from the producer group and the processors.

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- APEDA organizes International Trade Fairs for participation of exporters and provides a platform to the exporters to market their food products in the global marketplace.
- APEDA has been regularly mobilizing startups and entrepreneurs from UTs of Ladakh and Jammu and Kashmir to the national and international physical and virtual events for promotion of products from these regions to international market.

APEDA organizes 8-day-long mango festival in Bahrain

In News

In a major boost to the export of mangoes, the Agricultural and Processed Food Products Export Development Authority (APEDA) launched an eight-day-long Mango Festival in the Kingdom of Bahrain.

About Festival

- 34 varieties of mangoes from eastern states of West Bengal, Bihar, Jharkhand, Uttar Pradesh and Odisha, are being displayed at eight different locations of Bahrain's Al Jazira group supermarket.
- Jharkhand's Kamli and Biju, while Bihar's Jardalu, which is a GI-tagged variety, and Langra are displayed at the Mango Festival in Bahrain.

Mango

- Mango in India is also referred to as the 'king of fruits' and referred to as Kalpavriksha (wish-granting tree) in ancient scriptures.
- While most of the states in India have mango plantations, Uttar Pradesh, Bihar, Andhra Pradesh, Telangana, and Karnataka have a major share in the total production of the fruit. Alphonso, Kesar, Totapuri and Banganpalli are leading export varieties from India.
- Mango exports primarily take place in three forms: fresh mango, mango pulp, and mango slice.

Creditors will now need to file info about defaults

In News

The Insolvency Bankruptcy Board of India (IBBI) amended insolvency regulations, which now require creditors to file information regarding the assets and liabilities of their corporate debtors, along with other relevant financial information while initiating a corporate insolvency process.

Amended Provisions

- The amendment provides for filing copy of GST returns by operational creditors, along with e-way bills as documentary evidence of the debt and default.
- The same information may also be submitted as part of the claim documents submitted to the Insolvency Resolution Professional or the interim resolution professional for easier verification of claims.
- The changes in regulation also addresses the issue of treatment of avoidance applications filed with the Adjudicating Authority after closure of the corporate insolvency resolution process (CIRP).
- The amendment includes a definition of significant difference in valuations during CIRP and enables the committee of creditors to make a request to the resolution professional regarding the appointment of a third valuer.

Draft Guidelines for Operationalization of Ro-Ro and Ro-Pax ferry service

In News

The Ministry has prepared draft of "Guidelines for Operationalization of Ro-Ro and Ro-Pax ferry service along the coast of India" after incorporating the preliminary inputs received from the stakeholders.

About Guidelines

- The guidelines encompass the two aspects of ferry operation namely; concessions for terminal operation and license for operation of Ro-Pax vessels.
- These guidelines will homogenize and streamline the development and operations of ferry services, along with, promoting ease of doing business by eliminating unnecessary delays, disagreements and introducing digital interventions at customer interface.
- They will also help State/UT Governments and Port Authorities in implementation of such projects by standardization of procedures.
- Further, it will help in instilling confidence among the private players thereby increasing their participation and promoting healthy competition in such projects.

Sagarmala Project

- The Sagarmala Programme was approved by the Union Cabinet in 2015 which aims at holistic port infrastructure development along the 7,516-km long coastline through modernisation, mechanisation and computerisation.
- The vision of the Sagarmala Programme is to reduce logistics costs for EXIM (Export-Import) and domestic trade with minimal infrastructure investment.
- Sagarmala could boost India's merchandise exports to USD 110 billion by 2025 and create an estimated 10 million new jobs (four million in direct employment).
- Under the gambit of Sagarmala, the ministry has operationalized Ro-Pax Ferry service between Ghogha Hazira in Gujarat and Mumbai Mandwa in Maharashtra.
- These services have transported more than 7 lakh passenger and 1.5 lakh vehicles, contributing towards clean environment and public welfare.

Pragati Maidan Integrated Transit Corridor project

In News

Prime Minister Shri Narendra Modi will dedicate to the nation the main tunnel and five underpasses of Pragati Maidan Integrated Transit Corridor Project.

Transit Corridor Project

- The Integrated Transit Corridor project is an integral part of Pragati Maidan Redevelopment Project.
- The Pragati Maidan Integrated Transit Corridor project has been built at a cost of more than Rs. 920 crore, entirely funded by the Central Government.
- It is aimed to provide hassle free and smooth access to the new world class exhibition and convention centre being developed at Pragati Maidan, thereby facilitating easy participation of exhibitors and visitors in the programmes being held at Pragati Maidan.
- A unique component of the Tunnel is that two cross tunnels below the main tunnel road have been constructed in order to facilitate movement of the traffic from either side of the parking lot.
- It is equipped with the latest global standard facilities for smooth movement of traffic such as smart fire management, modern ventilation and automated drainage, digitally controlled CCTV and Public Announcement system inside the Tunnel.

Significance

- The impact of the project, however, will be much beyond Pragati Maidan as it will ensure hassle-free vehicular movement, helping save time and cost of commuters in a big way.
- It is part of the overarching vision of the government to ensure ease of living for people through transforming urban infrastructure.

India Ranks Third in Renewable Energy Installations in 2021

In News

India ranked third in renewable energy installations in 2021, after China and Russia, according to a global status report released recently.

Major Findings

- India installed 4 gigawatts (GW) of renewable energy projects in 2021
- India ranked fourth in total solar installations (60.4 GW) for the year overtaking Germany (59.2 GW) for the first time.
- Overall countries added around 3,146 GW of total installed renewable power capacity in 2021 a rise of 11% from the previous year.
- Despite the rise in installed capacity, the share of renewables in global energy use **stagnated** in 2021. The renewable energy capacities achieved so far come nowhere close to the targets required to keep the world on track to reach net-zero emissions by 2050.

Measures taken by Indian Govt.

- India has announced a target of 500 GW of renewable energy by 2030through sources such as solar photovoltaic (PV) energy, wind and hydropower.
- Currently, projects worth almost \$197 billion are underway in India.
- India extended its national solar production programme, which provides incentives to domestic and international companies for setting up battery manufacturing plants.
- In 2021, after India increased its cap on solar PV installations under its net metering scheme, the country's rooftop PV market hit a record high.

India-EU Free Trade Agreement

In News

In a joint event held at the Headquarters of the European Union (EU) recently, Union Minister for Commerce and Industry, and Mr. Valdis Dombrovskis, Executive Vice-President of European Commission formally re-launched the **India-EU Free Trade Agreement (FTA)** negotiations.

About FTA

- Both partners are now resuming the FTA talks after a gap of about nine years since the earlier negotiations were left off in 2013 due to difference in the scope and expectations from the deal.
- This would be one of the most significant FTAs for India as EU is its second largest trading partner after the US.
- The India-EU merchandise trade has registered an all-time high value of USD 116.36 Billion in 2021-22 with a year-on growth of 43.5%.
- India's export to the EU jumped 57% in FY 2021-22 to \$65 billion. India has a surplus trade with EU.

Other Agreements

- The proposed IPA would provide a legal framework for cross-border investments to enhance the confidence of investors.
- The GI pact is expected to establish a transparent and predictable regulatory environment, to facilitate trade of GI products including handicrafts and agri-commodities.
- Both parties are aiming to negotiate all the three agreements in parallel and conclude them simultaneously.

PADMA

In News

Pay Roll Automation for Disbursement of Monthly Allowances (PADMA), an automated Pay & Allowances module for the Indian Coast Guard was inaugurated by Shri Rajnish Kumar, Controller General of Defence Accounts (CGDA), Ministry of Defence, recently.

About PADMA

- PADMA is an automated platform leveraging latest technology which will provide seamless and timely disbursal of Pay & Allowances to around 15,000 Indian Coast Guard personnel.
- This module has been developed under the aegis of Defense Accounts Department and will be operated by Pay Accounts Office Coast Guard, Noida.
- The launch marked the beginning of the Centralized Pay System (CPS), the foundation of which is being laid down by the Defence Accounts Department Headquarters to provide one stop pay accounting solutions for all organisations under the Ministry.

Significance

- The CGDA emphasized that the Government has campaigned for Digital India to ensure dedicated services and reduce manual intervention at every level & to promote E-Governance in a big way.
- Launch of PADMA will strengthen the Digital India concept.
- Also, it is an 'Atmanirbhar Bharat' initiative as the entire module has been designed and developed by Indian entrepreneurs assisted by domain experts.

Computerization of Primary Agriculture Credit Societies (PACS)

In News

The Cabinet Committee on Economic Affairs chaired by Prime Minister Shri Narendra Modi has approved Computerization of Primary Agricultural Credit Societies (PACS) with the objective of increasing efficiency of PACS, bringing transparency and accountability in their operations; facilitating PACS to diversify their business and undertake multiple activities/ services.

About Computerization

- This project proposes computerization of about 63,000 functional PACS over a period of 5 years with a total budget outlay of Rs. 2516 crore with Government of India share of Rs. 1528 crore.
- The project will help in improving the outreach of the PACS as outlets for banking activities as well as non-Banking activities apart from improving digitalisation in rural areas.
- The DCCBs can then enrol themselves as one of the important options for taking up various government schemes (where credit and subsidy is involved) which can be implemented through PACS.
- It will ensure speedy disposal of loans, lower transition cost, faster audit and reduction in imbalances in payments and accounting with State. Cooperative Banks and District Central Cooperative Banks.

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- The project comprises of development of cloud based common software with cyber security and data storage, providing hardware support to the PACS, digitization of existing records including maintenance support and training.
- This software will be in vernacular language having flexibility of customisation as per the needs of the States. Project Management Units (PMUs) will be set up at Central and State levels.

PACS

- The Primary Agricultural Cooperative credit societies (PACS) constitute the lowest tier of the three-tier Short-term cooperative credit (STCC) in the country comprising of approx.13 Cr. farmers as its members, which is crucial for the development of the rural economy.
- PACS account for 41 % (3.01 Cr. farmers) of the KCC loans given by all entities in the Country and 95 % of these KCC loans (2.95 Cr. farmers) through PACS are to the Small and Marginal farmers.
- The other two tiers viz. State Cooperative Banks (StCBs) and District Central Cooperative Banks (DCCBs) have already been automated by the NABARD and brought on Common Banking Software (CBS).

NITI Aayog and TIFAC Launch Report on Future Penetration of Electric Two-Wheelers

In News

NITI Aayog and TIFAC launched a report titled 'Forecasting Penetration of Electric Two-Wheelers in India' recently.

Major Highlights

- Using a tool made by NITI Aayog and TIFAC, eight scenarios have been developed for analyzing the future penetration of electric two-wheelers in the country.
- The report forecasts 100% penetration of electric two-wheelers in the Indian market by FY 2026–27.
- In another scenario, which is technology driven and where current incentives are withdrawn by 2024, the report predicts 72% penetration by 2031.
- In the 'Technology Driven' scenario, if an R&D programme manages to enhance the range and power of electric two-wheelers by 5% annually between FY 2023–24 and 2025–26, and by 10% in FY 2026–2027, then the penetration of electric-two wheelers may reach about 72% in FY 2031–32—even with no extension of demand incentives.
- The sale of electric two-wheelers may cross 220 lakh units in FY 2028–29 under the 'Optimistic', 'Same Performance' and 'Battery Cost Challenged' scenarios. It may reach 180 lakh units under the 'Technology-Driven' scenario. Under the 'Incentive Drive' scenario, the sale is expected to reach only 55 lakh units in FY 2031.

Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)

In News

For the first time, the Central government has revised the premium rates for Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) and Pradhan Mantri Suraksha Bima Yojana (PMSBY).

Changes/Implications

- While the schemes were launched in 2015, no revisions have been made in the last seven years.
- The premium rates of the schemes have been revised by making it Rs 1.25 per day premium for both schemes that includes revising PMJJBY from Rs. 330 to Rs. 436 and PMSBY from Rs. 12 to Rs. 20.
- As of March 31, 2022, the active number of subscribers of PMJJBY and PMSBY were 6.4 crore and 22 crore.

• This would also encourage other private insurers to come on board for implementing the schemes, thereby increasing the saturation of the schemes amongst the eligible target population, especially those who are underserved or unserved population of India.

Single Nodal Agency (SNA) Dashboard

In News

Union Minister for Finance and Corporate Affairs Smt. Nirmala Sitharaman to launch of **Single Nodal Agency (SNA) Dashboard** during the Iconic Week Celebrations of *Azadi Ka Amrit Mahotsav* celebrations of Ministry of Finance, in New Delhi.

About the Dashboard

- The SNA Dashboard forms part of a major public financial management reform that was initiated in 2021 with regards to the manner in which funds for Centrally Sponsored Schemes (CSS) are released, disbursed and monitored.
- This revised procedure, now referred to as the SNA model, requires each State to identify and designate a SNA for every scheme.
- All funds for that State in a particular scheme will be credited in this bank account, and all expenses will be made by all other Implementing Agencies involved from this account.
- The SNA model, therefore, ensures that allocation of funds to States for the CSS are made in a timely manner and after meeting various stipulations.
- The Dashboard depicts releases made to different States by Ministries, further releases made by State Treasuries to the SNA accounts, expenditure reported by the agencies, interest paid by banks to SNA accounts etc. in intelligible, informative and visually appealing graphics.
- The programme will also have presentations on 'Best Practices in Cash Management through SNA and Treasury Single Account (TSA)'.

Biotech Startup Expo – 2022

In News

Prime Minister Shri Narendra Modi will inaugurate the Biotech Startup Expo - 2022 at Pragati Maidan, New Delhi.

Biotech Startup Expo

- It is a two day event being held on 9th and 10th June.
- It is being organised by the Department of Biotechnology and Biotechnology Industry Research Assistance Council (BIRAC).
- It is being held to mark completion of ten years of setting up of BIRAC.
- The theme of the Expo is 'Biotech Startup Innovations: Towards AatmaNirbhar Bharat'.
- The Expo will act as a platform to connect entrepreneurs, investors, industry leaders, scientists, researchers, bio-incubators, manufacturers, regulators, government officials, etc.
- About 300 stalls will be set up at the Expo, which will showcase the applications of biotechnology in various fields such as healthcare, genomics, biopharma, agriculture, industrial biotechnology, waste-to-value, clean energy, among others.

Twelfth WTO Ministerial Conference

In News

The twelfth WTO Ministerial Conference is all set to begin from 12th June 2022 in Geneva, Switzerland after a gap of almost five years.

Key Areas of Discussion

- The key areas of discussions and negotiations this year's conference include WTO's response to the pandemic, Fisheries subsidies negotiations, Agriculture issues including Public Stockholding for Food security, WTO Reforms and Moratorium on Custom Duties on Electronic Transmission.
- Areas of discussion in agriculture are issues relating to market access, special safeguard mechanism for developing countries to protect domestic agricultural producers against import surges and sudden price falls, through additional import duties, on the lines of a similar safeguard presently available to many developed and few developing countries.

India and WTO

- India is a founding member of the WTO since 1 January 1995 and a member of GATT since 8 July 1948.
- India believes in a transparent and inclusive multilateral trading system and we are committed to work to strengthen the WTO.

Creditors will now need to file info about defaults

In News

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Udyami Bharat

In News

The Prime Minister, Shri Narendra Modi participated in the 'Udyami Bharat' programme and launched key initiatives like 'Raising and Accelerating MSME Performance' (RAMP) scheme, 'Capacity Building of First-Time MSME Exporters' (CBFTE) scheme and new features of the 'Prime Minister's Employment Generation Programme' (PMEGP) to ramp up the MSME sector.

Udyami Bharat Programme

- Udyami Bharat' is reflective of the continuous commitment of the government, to work towards empowerment of MSMEs.
- Under this Government has launched several initiatives from time to time like MUDRA Yojana, Emergency Credit Line Guarantee Scheme, Scheme of Fund for
- Regeneration of Traditional Industries (SFURTI) etc. to provide necessary and timely support to the MSME sector, which has helped benefit crores of people across the country.

RAMP Scheme

- The scheme with an outlay of around Rs 6000 crore, **aims** to scale up the implementation capacity and coverage of MSMEs in the States, with impact enhancement of existing MSME schemes.
- It will complement the Aatmanirbhar Bharat Abhiyan by fostering innovation, encouraging ideation, incubating new business and entrepreneurship by developing quality standards, improving practices and processes, enhancing market access, deploying technological tools and Industry 4.0 to make MSMEs competitive and self-reliant.

CBFTE

- 'Capacity Building of First-Time MSME Exporters' (CBFTE) scheme aims to encourage MSMEs to offer products and services of international standards for the global market.
- This will enhance the participation of Indian MSMEs in the global value chain and help them realise their export potential.

PMEGP

New features of the 'Prime Minister's Employment Generation Programme' (PMEGP) include an increase in the maximum project cost to Rs 50 lakhs (from Rs 25 lakhs) for the manufacturing sector and Rs 20 lakhs (from Rs 10 lakhs) in the service sector and inclusion of applicants from Aspirational districts & Transgenders in the Special Category applicants for availing higher subsidies.

EU law to take on crypto badlands

In News

The European Parliament, Council and Commission approved new provisions on the supervision of cryptoasset service providers (CASPs), consumer protection and environmental safeguards for cryptoassets, including cryptocurrencies like Bitcoin and Ether.

MICA

- It seeks to address concerns like money-laundering, protection of consumers and investors, accountability of crypto firms, stablecoins and the environmental footprint of crypto mining.
- It excludes **NFT** (non-fungible tokens).

Provisions

- MiCA would mandate currencies like stablecoin issuers to maintain minimum liquidity to provide for sudden large withdrawals by users, and the reserves must also be protected from insolvency.
- The European Banking Authority (EBA) has been brought in to supervise stablecoins, and the law asks stablecoin issuers to provide claims to investors free of charge.
- Large coins which are used as a means of payment will be capped at €200 million worth of transactions per day.

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- MiCA requires the EBA to maintain a public register of non-compliant crypto asset service providers (CASPs).
- Mandatory to declare Environmental footprint: Under MiCA, crypto companies will be required to declare their environmental and climate footprint.

Innovation in Science Pursuit for Inspired Research (INSPIRE) Program

In News

Union Minister of State (Independent Charge) Science & Technology; has asked government agencies, to reach out to potential Start-Ups and support them, in addition to offering support to those who themselves reach us.

INSPIRE Program

- The scheme is expanding R&D base of the country by building a pipeline of quality human resources and cultivating a talent pool.
- Build the required critical human resource pool for strengthening and expanding the Science & Technology system and R&D base
- It does not believe in conducting competitive exams for identification of talent at any level. It believes in and relies on the efficacy of the existing educational structure for identification of talent.
- INSPIRE has three components:
- Scheme for Early Attraction of Talent (SEATS) -> Awards and internships
- Scholarship for Higher Education (SHE) and
- Assured Opportunity for Research Careers (AORC) -> Fellowship and Faculty Scheme

MANAK Awards

- INSPIRE Awards MANAK (Million Minds Augmenting National Aspiration and Knowledge) is a unique initiative to attract talented school students at an early age to study science and pursue research career apart from fostering a culture of innovation among them.
- Scheme caters to school children in the age group of 10-15 years and studying in Class 6-10.
- INSPIRE Award MANAK scheme targets ten lakh ideas from more than five lakh middle and high schools across the country every year.
- Out of these, one lakh ideas are given INSPIRE Award of Rs. 10,000/-each. So far, more than 16 lakh students of 6-10th classes have presented their ideas on a national S&T platform.

Platform of Platforms (POP) under eNAM

In News

The Union Minister of Agriculture and Farmers Welfare, Shri Narendra Singh Tomar, launched the Platform of Platforms (POP) under the National Agriculture Market (e-NAM) on the sidelines of the State Agriculture and Horticulture Ministers' Conference in Bengaluru, Karnataka.

Features

- POP will facilitate to sell the produce outside their state borders.
- This will increase farmers' digital access to multiple markets, buyers and service providers and bring transparency in business transactions with the aim of improving price search mechanism and quality commensurate price realisation.
- 41 service providers from different platforms are covered under POP facilitating various value chain services like trading, quality checks, warehousing, fintech, market information, transportation etc.

- The PoP will create a digital ecosystem, which will benefit from the expertise of different platforms in different segments of the agricultural value chain.
- The POP can be accessed through e-NAM mobile app which can be downloaded from Google Play Store.
- e-NAM integrates the platform of Service Providers as "Platform of Platforms" which includes Composite Service Providers (Service Providers who provide holistic services for trading of agricultural produce including quality analysis, trading, payment systems and logistics), Logistics Service Provider, Quality Assurance Service Provider, Cleaning, Grading, Sorting & Packaging Service Provider, Warehousing Facility Service Provider, Agricultural Input Service Provider, Technology Enabled Finance & Insurance Service Provider, Information Dissemination Portal.

e-Nam

- It was launched on 14th April 2016 as a pan-India electronic trade portal linking Agricultural Produce Market Committees (APMCs) across the States.
- It provides for contactless remote bidding and mobile-based anytime payment for which traders do not need to either visit mandis or banks for the same.
- Already 585 mandis in 16 States and 2 Union Territories have been integrated on e-NAM portal and will be soon expanded to cover additional 415 mandis, which will take the total number of e-NAM mandis to 1,000.

National Conference on Methodology of Crop Estimation held

In News

The Directorate of Economics and Statistics (DES), Department of Agriculture & Farmers Welfare (DA&FW) under Ministry of Agriculture and Farmers organised a Conference on Estimation of Crop Production in New Delhi.

About National Conference

- AIM- at discussion about various methodologies used by different agencies for crop estimation, sharing their best practices and to tri-angulate the reasons for variation between the estimates generated by different agencies and the way forward to generate responsible agricultural crop estimates.
- Around 300 participants from various fields such as Central Ministries / Departments, State Governments, Private agencies involved in Crop Estimation and FAO participated in the conference.
- The crop estimation methodology used by the Central Government is widespread and covers the highest number of crop for production estimation, the **Mahalanobis Crop Forecasting Centre** (MNCFC) uses remote sensing through satellite imagery for crop estimation and the Institute of Economic Growth uses econometric modelling for the estimation of various crops in the country.

Taranga Hill-Ambaji-Abu Road new rail line

In News

The Cabinet Committee on Economic Affairs chaired by Prime Minister Shri Narendra Modi has approved the construction of **Taranga Hill-Ambaji- Abu Road** new rail line to be constructed by Ministry of Railways at an estimated cost of Rs.2798.16 crore.

Details

- The total length of the new rail line will be 116.65 kms.
- The project will be completed by 2026-27.
- The project will generate direct employment during construction for about 40 lakh mandays.

Significance

- Ambaji is a famous important pilgrimage destination and is one of the 51 Shaktipeeths in India and attracts millions of devotees from Gujarat as well as other parts of the country and abroad every year.
- The construction of this line will facilitate easy travel for these millions of devotees.
- Further, the devotees visiting the Ajitnath Jain temple (one of the 24 holy Jain Tirthankaras) at Taranga Hill would also be greatly benefitted by this connectivity.
- This railway new line between Taranga Hill-Ambaji- Abu Road will connect these two important religious sports with railway's main network.
- This line will facilitate faster movement of agricultural and local products and also provide improved mobility of the people in the region within the state of Gujarat and Rajasthan and also to other parts of the country.

'DIGI YATRA' project

In News

Consultative Committee of Ministry of Civil Aviation discusses 'DIGI YATRA' project.

Digi Yatra

- It is a project conceived to achieve contactless, seamless processing of passengers at Airports, based on Facial Recognition Technology (FRT).
- The project basically envisages that any traveller may pass through various check points at the airport through a paperless and contactless processing, using facial features to establish the identity which would be linked to the boarding pass.
- The privacy issues have been taken care of in the system.
- It provides for decentralized mobile wallet-based identity management platform which is cost effective and addresses privacy/data protection issues in implementation of Digi Yatra.
- In first phase, Digi Yatra is proposed to be rolled out at two Airports namely Varanasi and Bengaluru in August 2022.

DYF

- Digi Yatra Foundation (DYF) has been set up as a joint venture (JV) company in 2019 under Section 8 of the Companies Act, 2013 whose shareholders are AAI (26% shares) and BIAL, DIAL, GHIAL, MIAL and CIAL.
- DYF will be a pan-India entity and the custodian of the Passenger ID validation process.
- It will also develop consensus amongst the Aviation Stakeholders in India.
- It would also define the criteria for compliance and guidelines for the local airport systems.

'Mapping and Exchange of Good Practices' Initiative

In News

NITI Aayog and the World Food Programme (WFP), India, will launch the '**Mapping and Exchange of Good Practices'** initiative for mainstreaming millets in Asia and Africa in a hybrid event.

About the initiative

NITI and WFP will prepare a compendium of good practices for scaling up the production and consumption of millets in India and abroad.

About WFP

- It was founded in 1961 by the Food and Agriculture Organization (FAO) and United Nations General Assembly (UNGA) with its headquarters in Rome, Italy.
- It is also a member of the United Nations Sustainable Development Group (UNSDG), a coalition of UN agencies and organizations aimed at fulfilling the Sustainable Development Goals (SDGs).
- The international community has committed to end hunger, achieve food security and improve nutrition by 2030.
- The WFP assists 88 countries, and has assisted 97 million people (in 2019) which is the largest number since 2012.

NITI Aayog

- Planning Commission was replaced by a new institution NITI Aayog on 1st January, 2015 with emphasis on 'Bottom –Up' approach to envisage the vision of Maximum Governance, Minimum Government, echoing the spirit of 'Cooperative Federalism'.
- It has two Hubs.
- Team India Hub acts as interface between States and Centre.
- Knowledge and Innovation Hub builds the think-tank acumen of NITI Aayog.

"Udyamita Pakhwara"

In News

DAY-NRLM, MoRD organized "Udyamita Pakhwara" from 1st to 15th July, 2022.

Udyamita Pakhwara

- The objective of this Udyamita Pakhwara was to highlight the importance of enterprise growth and entrepreneurship development under non-farm livelihoods in rural areas across the country.
- A series of activities under Start-up Village Entrepreneurship Programme (SVEP), One Stop Facility (OSF), Clusters, Incubators, SHG products marketing, PMFME scheme were organised in this duration across the country.
- DAY-NRLM is also facilitating mobilization of SHG individual beneficiaries and groups for support under PMFME scheme of MoFPI.
- Udyamita Pakhwara, Rs. 10.8 Crore were released to SHGs under PMFME for Seed Capital support.
- Activities under Clusters and Incubators schemes were also initiated in the States.
- The focus on capacity building resulted in assessment and certification of 115 master CRP-EPs as per the NSQF norms.

JNPT becomes first 100% Landlord Major Port of India

In News

The PPP mode of investment in Indian ports has made a remarkable progress in the last 25 years, beginning from the Jawaharlal Nehru Port (JNP), resulting in the capacity addition and productivity improvement.

About **JNP**

- JNP has become the first major port of the country to become 100% Landlord port having all berths being operated on PPP model.
- JNP is one of the leading container ports of the country and is ranked 26th among the top 100 global ports (as per Lloyds List Top 100 Ports 2021 Report).
- Currently, five container terminals are operated at JNP, of which only one is port owned.

- With its state of the art facilities JNP meets all the international standards, user-friendly atmosphere, and excellent connectivity by rail and road to the hinterland.
- The Jawaharlal Nehru Port Container Terminal (JNPCT) has 2 berths with total length of 680m and 15m draft which will be handed over under this PPP contract along with backup area of 54.74 hectares for 30 years.

E-AMRIT

In News

NITI Aayog launched two significant initiatives — **E-AMRIT** (Accelerated e-Mobility Revolution for India's Transportation) mobile application to raise awareness on electric mobility and the Report on Advanced Chemistry Cell Battery Reuse and Recycling Market in India.

UK's Glasgow Breakthrough

- India is among 42 leaders to back and sign up to the UK's Glasgow Breakthroughs, launched at the COP26 climate summit.
- India is also a co-convener of the Glasgow Breakthrough on Road Transport, together with the UK and the US.
- The Breakthrough on Road Transport aims to make ZEVs including 2&3-wheelers, cars, vans and Heavy-Duty Vehicles – the new normal by making them affordable, accessible and sustainable in all regions by 2030.
- To bolster this low carbon infrastructure, NITI Aayog has been collaborating with the UK Government in the areas of e-vehicles, charging infrastructure and battery storage.
- India is the fifth largest and fastest growing vehicle market in the world, providing massive potential for electric vehicle uptake.
- The shift to Zero Emission Vehicles (ZEVs) is well underway and accelerating, creating 100,000s of new emobility jobs, driving down technology costs, ensuring the air we breathe is cleaner and reducing our reliance on imported fuels.

E-Amrit

- The e-AMRIT app offers users key information like engagement tools that enable them to assess benefits of electric vehicles, determine savings and get all the information on developments in the Indian electric vehicle market and industry at their fingertips.
- The mobile app, which will be available on Google Playstore in android version today, is a follow-up to the e-AMRIT (www.e-amrit.niti.gov.in).

Raising and Accelerating MSME Performance (RAMP)

In News

Government has launched a World Bank supported Central Sector Scheme called Raising and Accelerating MSME Performance (RAMP).

RAMP Scheme

- The scheme aims at strengthening institutions and governance at the Centre and State, improving Centre-State linkages and partnerships and improving access of MSMEs to market and credit, technology upgradation and addressing issues of delayed payments and greening of MSMEs.
- **RAMP programme** will be implemented over a period of five years.

- The total outlay for the scheme is ₹6,062.45 crore or USD 808 Million, out of which ₹3750 crore or USD 500 Million would be a loan from the World Bank and the remaining ₹2312.45 crore or USD 308 Million would be funded by the Government of India (GoI).
- Interventions under RAMP programme, by way of increasing access of MSMEs to market, technology and credit, increasing outreach to more MSMEs, inclusion of service sector, gender and greening initiatives etc., are aimed at increasing the performance of the MSME sector, thus resulting in more employment opportunities.

India's first International Bullion Exchange

In News

- Prime Minister Shri Narendra Modi laid the foundation stone of the headquarters building of the International Financial Services Centres Authority (IFSCA) in GIFT City, Gandhinagar.
- He also launched the India International Bullion Exchange (IIBX), India's first International Bullion Exchange in GIFT-IFSC.
- He also launched the NSE IFSC-SGX Connect.

About GIFT City, IFSCA

- GIFT city (Gujarat International Finance Tec-City) was envisaged as an integrated hub for financial and technology services not just for India but for the world.
- IFSCA is the unified regulator for the development and regulation of financial products, financial services and financial institutions in International Financial Services Centres (IFSCs) in India.
- The building has been conceptualised as an iconic structure, reflective of the growing prominence and stature of GIFT-IFSC as a leading International Financial Centre.

IIBX

- IIBX will facilitate efficient price discovery with the assurance of responsible sourcing and quality, apart from giving impetus to the financialisation of gold in India.
- It will empower India to gain its rightful place in the global bullion market and serve the global value chain with integrity and quality.
- IIBX also re-enforces the commitment of the Government of India towards enabling India to be able to influence global bullion prices as a principal consumer.

NSE IFSC-SGX

- NSE IFSC-SGX Connect is a framework between NSE's subsidiary in the GIFT International Financial Services Centre (IFSC) and Singapore Exchange Limited (SGX).
- Under Connect, all orders on NIFTY derivatives placed by members of Singapore Exchange will be routed to and matched on the NSE-IFSC order matching and trading platform.
- Broker-Dealers from India and across international jurisdictions are expected to participate in large numbers for trading derivatives through Connect.

Development of Ayush Entrepreneurship

In News

For the purpose of development of the Ayush entrepreneurship Ministry of Ayush had developed a Central Sector Scheme namely Champion Services Sector Scheme for Medical Value Travel for implementation on Pan India basis.

Champion Services Sector Scheme

- Under this scheme, financial assistance in the form of Interest Subsidy is provided to private investors for the establishment of Super Specialty Hospitals/ Day Care Centres of the systems recognized under The National Commission for Indian System of Medicine (NCISM) Act, 2020 or The National Commission for Homeopathy (NCH) Act, 2020.
- Ministry of Ayush signed a MoU with Ministry of Micro, Small & Medium Enterprises (MSME) for the promotion of Ayush enterprises.
- The All India Institute of Ayurveda(AIIA) an autonomous body under Ministry of Ayush has set up an incubation centre i.e. AIIA-ICAINE (Incubation Centre for Innovation and Entrepreneurship) to support new startups in the Ayush sector.
- Academia-industry Research Incubation for Value-chain Up-gradation (ARIVU) has been setup by Central Council of Research in Siddha (CCRS) to promote innovation and entrepreneurship by translating novel ideas and innovation in various disciplines of Siddha Research.

India has signed Bilateral Air Service Agreement with 116 countries

In News

India has signed a bilateral air service agreement with 116 countries including neighbouring Bangladesh, Afghanistan, and Pakistan along with the US, UK, UAE etc.

Details

- Any designated foreign airline can operate to/from a point in India if it is designated as a point of call in the bilateral Air Services Agreement (ASA) signed between India and the country which has designated the airline.
- Indian designated carriers are free to mount scheduled operations to/from any international airport, including Kannur International Airport, under the ambit of bilateral ASAs concluded by India with foreign countries.

Freedom of Air

- The freedom of air means a country grants airlines of a particular country the privilege to use and/or land in another country's airspace.
- Freedom of air rule emanates from the Chicago Convention in 1944.
- First Freedom Right: It is granted by one State to another State or States to fly across its territory without landing.

In the case of the GoFirst flight (Indian carrier) was using the airspace of Pakistan (the second country) and was landing in the UAE (the third country).

- Second Freedom Right: The right or privilege, in respect of scheduled international air services, granted by one State to another State or States to land in its territory for non-traffic purposes.
- **Third Freedom Right**: To put down, in the territory of the first State, traffic coming from the home State of the carrier.
- Fourth Freedom Right: To take on, in the territory of the first State, traffic destined for the home State of the carrier.

• Fifth Freedom Right: To put down and to take on, in the territory of the first State, traffic coming from or destined to a third State.

Nano Urea

In News

India will produce over 6cr bottles of Nano urea and make it available to farmers in 2022-23.

Nano Urea

- Urea is chemical nitrogen fertilizer, white in colour, which artificially provides nitrogen, a major nutrient required by plants.
- Liquid nano urea is essentially urea in the form of a nanoparticle.
- It is a patented chemical nitrogen fertilizer produced by IFFCO.
- Nano urea is cheaper (Rs 240 for half litre without subsidy; the International market price of a bag of urea is between Rs 3,500 and Rs 4,000. A bottle of nano urea can effectively replace at least one bag of urea.
- Reduces fertilizer subsidy bill of government. India is dependent on imports of the widely used fertilizer.
- The efficiency of Nano urea (nutritional use efficiency) can be as high as 85-90 per cent (Conventional urea has an efficiency of about 25 per cent).
- As Nano urea has higher surface-mass ratios that help in releasing nutrients to plants in a controlled manner.
- Nano urea has a shelf life of a year, and farmers need not be worried about "caking" when it comes in contact with moisture.

Grameen Udyami Project

In News

To augment skill training in tribal communities for their inclusive and sustainable growth, National Skill Development Corporation (NSDC) in partnership with Seva Bharti and Yuva Vikas Society, launched the second phase of Grameen Udyami Project.

About the project

- Under the initiative, the endeavour is to multiskill India's youth and impart functional skills to them for enabling livelihoods.
- Grameen Udyami is a unique multiskilling project, funded by NSDC that aims to train 450 tribal students in Madhya Pradesh and Jharkhand.
- The project is being implemented in six states— Maharashtra, Rajasthan, Chhattisgarh, Madhya Pradesh, Jharkhand, and Gujarat.
- This concept was crystallized by MoS, Shri. Rajeev Chandrasekhar and tribal MPs.
- Focus is on strengthening sustainable livelihood for tribal populations and with this, the central government has sanctioned a budget of 85,000 cr. exclusively for tribal areas.
- The phase-II of the pilot project launched in Ranchi is being implemented by Yuva Vikas Society, through Seva Bharti Kendra in Ranchi.
- NSDC under the aegis of MSDE has supported in setting up of labs and classrooms through Sector Skill Councils (SSCs) in Seva Bharti Kendra Skill Development Center.
- Grameen Udyami Yojana is implemented under Sansadiya Parisankul Yojana.

Objectives

Increase in Rural/Local Economy

- Enhance employment opportunities
- Reduce forced migration due to lack of local opportunities
- Conservation of natural resources

SILK MARK EXPO

In News

Minster of State for Textiles and Railways Smt. Darshana Vikram Jardosh inaugurated the SILK MARK EXPO.

About Expo

- A scheme has been enacted in the name of "Silk Mark" by the Silk Mark Organization of India.
- Silk Mark is aimed at generic promotion of silk and building brand equity of Indian Silk at home and abroad.
- It is also protecting the interests of not only the silk consumers but all stake holders of silk value chain including farmers, reelers, twisters manufacturers and traders of pure silk.
- Silk Mark is a Quality Assurance Label, which signifies that the product to which it is affixed is made of pure silk.
- It can be affixed to Silk yarn, Sarees, Dress Materials, Made ups, furnishing materials and other silk products which are made up of 100% Natural silk.

MCA21 Version -3

In News

MCA21 version-3.0 is a technology-driven forward-looking project, envisioned to strengthen enforcement, promote Ease of Doing Business and enhance user experience. MCA21 version-3.0 rollout has been planned in phases to ensure minimum disruption in regulatory filings.

MCA 21

- It will leverage the use of latest technologies to further streamline the Corporate Compliance and stakeholders experience.MCA21 is the online portal of the Ministry of Corporate Affairs (MCA) that has made all company related information accessible to various stakeholders and the general public. It was launched in 2006.
- The entire project is proposed to be launched within the Financial Year 2021-22 and will be data analytics and machine learning driven.
- The MCA21 V3.0 in its entirety will not only improve the existing services and modules, but will also create new functionalities like e-adjudication, compliance management system, advanced helpdesk, feedback services, user dashboards, self-reporting tools and revamped master data services.
- It comprises a revamped website, new email services for MCA Officers and two new modules, namely, e. Book and e. Consultation.
- MCA21 is an e-Governance initiative of Ministry of Corporate Affairs (MCA) that enables an easy and secure access of the MCA services to the corporate entities, professionals and citizens of India.
- This will help the business community to meet their statutory obligations.

LEADS 2022 Survey

In News

The logistics division of DPIIT, Ministry of Commerce & Industry undertakes an annual "Logistics Ease Across Different States (LEADS)" survey in all States/ UTs to assess and suggest various improvements in logistics sector of the country.

LEADS Survey

- The LEADS survey assesses viewpoints of various users and stakeholders across value chain (Shippers, Terminal Infrastructure Service Providers, Logistics Service Providers, Transporters and Government agencies) to understand the 'enabler' and 'impediments' to logistics ecosystem in the country.
- In the annual LEADS Report for 2021, Gujarat, Haryana and Punjab held top three ranks among States respectively while Jammu Kashmir, Sikkim and Meghalaya were top three in North-eastern States and Himalayan UTs respectively.
- The LEADS 2022 survey, along with PM GatiShakti's transformative approach, is to break the silos and improve the logistics efficiency of the country which will also reflect positively on international indices, such as Logistics Performance Index (LPI) conducted biennially by the World Bank.

Jigyasa Program

In News

Ministry of S&T recently organized Jigyasa 2.0 for the renewable fuel program.

Jigyasa Program

- Jigyasa, a student-scientist connect programme by CSIR in collaboration with Kendriya Vidyalaya and is aimed at connecting school students and scientists so as to extend students' classroom learning with that of a very well-planned research laboratory-based learning.
- It would inculcate the culture of inquisitiveness on one hand and scientific temper on the other, amongst the school students and their teachers.
- The program will also enable the students and teachers to visit CSIR laboratories and participate in miniscience projects.

Science and Heritage Research Initiative (SHRI) programme

In News

Around 20 heritage rice varieties of Tamil Nadu are being traced, collected, redeemed, and restored at least through 10 community seed banks benefiting more than 500 farmers in the state.

SHRI Programme

- The initiative by SASTRA Deemed to be University, with support from the Science and Heritage Research Initiative (SHRI) programme of the Department of Science and Technology (DST), is reviving, conserving, and characterizing the traditional rice varieties.
- The operational principles of these banks include memory banking of ethno-ecological knowledge, promotion of medicinal knowledge, and special agronomic qualities through associated cultural belief as well as their conservation.
- Regional festivals also help to promote exchange of seeds.

- For example, paddy seed exchange festival –'Nel Thiruvizha' organized along with CREATE- a Tiruvarur-based NGO, helped distribute heritage rice seed varieties such as Karuppu kouni, Thuyya malli, Mapillai samba, Karunkuruvai.
- The initiative to collect & conserve the traditional landraces of rice varieties can help share and exchange knowledge about the varieties with inherent capacities to withstand climate uncertainties, drought and flood resistance, medicinal and nutritional properties.
- 'Seeds of Past' conserved to reserve 'Seeds for future' can be promoted for upscaling in coming years.
- Field gene banks have been set up to propagate the heirloom varieties through seed exchange programmes and organic seed multiplication.
- The farmers are trained in conservation methods and ways of enriching and revitalizing the indigenous heritage germplasms, as well as on *In situ* trials for climate adaptability in the farmer's field on a pilot scale.

Innovation Roadmap of the Mission Integrated Biorefineries

In News

Dr Jitendra Singh, has announced the launch of the "Innovation Roadmap of the Mission Integrated Biorefineries" developed by co-leads and active inputs from Brazil, Canada, EC and the UK.

About the mission

- The Mission aims at greater international collaboration and the need for increased financing for Energy Research, Development, and Demonstration (RD&D) during the next five years to kickstart this objective and unleash a virtuous cycle of public and private investment.
- It aims to fill the void by identifying gaps and challenges in current biorefining value chains, prioritising Eight key actions to support the Mission, and guiding the Mission's overall path in achieving its goal.
- It provides policymakers with a strategy framework to establish a rising RD&D portfolio over the next five years, specific financing proposals across the entire spectrum of vital Biorefinery technologies, and rapid action suggestions.
- By 2030, India agreed to reach 500-Gigawatt non-fossil energy capacity, shift 50% of energy requirements to renewable energy, lower overall anticipated carbon emissions by one billion tons, reduce carbon intensity of the economy by 45% over 2005 levels, and achieve net zero emissions by 2070.
- A pilot plant of 10 Tons/day capacity plant with integrated enzyme production is being set up at Panipat Haryana, which will be commissioned by December 2022.
- This will be the 1st indigenous technology for on-site enzyme production.
- lignin valorization process is also being developed to produce value added products from waste lignin.

Poshan Vatikas or Nutri-gardens

In News

Under various interventions taken up by the Ministry of Women and Child Development jointly with Ministry of Ayush, close to 4.37 lakh Anganwadi Centres have set up Poshan Vatikas.

POSHAN Abhiyan

- POSHAN Abhiyaan aims to improve nutritional outcomes for children, adolescents, pregnant women & lactating mothers.
- The Abhiyaan is a key component of Mission Poshan 2.0 which seeks to address the challenges of malnutrition in children, adolescent girls, pregnant women and lactating mothers through a strategic shift in

nutrition content and delivery and by creation of a convergent eco-system to develop and promote practices that nurture health, wellness and immunity.

Significance

- Poshan Vatikas can play an important role in enhancing dietary diversity by providing key micronutrients through local fruits and vegetables.
- Poshan Vatikas are a good example of convergent action on-ground.
- Beyond the reward of locally available wholesome produce, it will reduce external dependency and make communities *atmanirbhar* for their nutritional security.

AVGAS 100 LL

In News

Indigenously developed special aviation fuel AVGAS 100 LL was launched by the Indian Government.

About AVGAS 100 LL

- AVGAS 100 LL was indigenously developed by the Indian Oil Corporation for the piston engine aircrafts and unmanned aerial vehicles.
- It is used to power aircraft having spark-ignition piston engines, in which combustion process of the air-fuel mixture is ignited by a spark from a spark plug.
- This indigenously developed fuel is a blue aviation gasoline with a high octane number, which measures the fuel's ability to resist compression without bursting.
- The IOC's newly developed aviation fuel would provide for the requirements of India's aviation industry, which is witnessing an increased footfall in airports, increased number of aircraft and Flying Training Organizations (FTOs) for pilot training.
- It will be produced in Indian Oil's refinery in Vadodara, Gujarat.
- It has been certified by the Directorate General of Civil Aviation (DGCA) the apex body regulating the civil aviation industry in India.
- This higher-octane aviation fuel that has superior performance quality standards than the imported aviation gasoline.

Reason

- India is currently importing the special aviation fuel from the European countries.
- The demand for air transport is expected to further increase in the future.
- The aviation gasoline market is predicted to grow from the present 1.92 billion to 2.71 billion by 2029.
- Self-reliance in aviation gasoline will save India around Rs.20,000 to Rs.30,000 per kilo liter.
- India consumes around 3,000 kilo liter each year, which are all imported from foreign countries.
- The Vadodara refinery currently has the capacity to cater to the domestic needs as well the export requirements.

India's First Aluminum Freight Rake - 61 BOBRNALHSM1

In News

Union Minister for Railways, Communications and Electronics & Information Technology, Shri Ashwini Vaishnaw inaugurated India's First Aluminum Freight Rake - 61 BOBRNALHSM1 at Bhubaneswar Railway Station.

Features of the Rake

- This is a dedicated effort for Make in India program as it has been fully designed and developed indigenously in collaboration with RDSO, HINDALCO and Besco Wagon.
- The rake's destination is Bilaspur.
- Fully Lockbolted construction with no welding on superstructure.
- The tare is 3.25 tons lower than normal steel rakes, 180 ton extra carrying capacity resulting in higher throughput per wagon.
- Higher payload to tare ratio 2.85.
- The reduced tare will reduce carbon footprint as lower consumption of fuel in empty direction and more transport of freight in loaded condition.
- A single rake can save over 14,500 tonnes of CO2 over its lifetime.
- 80% is resale value of the rakes.
- Cost is 35% higher as the superstructure is all aluminium.
- Lower maintenance cost due to higher corrosion and abrasion resistance.

PM Kisan Samman Sammelan 2022

In News

The Prime Minister, Shri Narendra Modi inaugurated PM Kisan Samman Sammelan 2022 at Indian Agricultural Research Institute in New Delhi recently.

About PMSK

- A total of 600 Pradan Mantri Kisan Samruddhi Kendras (PMKSK) under the ministry of chemicals and fertilisers will be inaugurated by the Prime Minister.
- PMKSK will cater to a wide variety of farmer needs and provide agri-inputs like fertilizers, seeds, implements; testing facilities for soil, seeds, fertilisers; generate awareness among farmers; provide information regarding various government schemes and ensure regular capacity building of retailers at block/ district level outlets.
- More than 3.3 lakh retail fertiliser shops in the country are planned to be converted into PMKSK in a phased manner.
- These will be centres where farmers can buy not only fertilisers and seeds but also implement soil testing and avail useful information about farming techniques.
- The PM will also inaugurate the Agri Startup Conclave and Exhibition in which about 300 startups will showcase their innovation in farming techniques.
- An e-magazine called 'Indian Edge' with a focus on fertilisers will be launched during the event. It will provide information on domestic and international fertiliser scenarios, including recent developments, price trends analysis, availability and consumption, and success stories of farmers, among others.

Pradhan Mantri Bhartiya Jan Urvarak Pariyojana

- The Scheme also known as One Nation One Fertiliser scheme.
- Under the scheme, Prime Minister will launch Bharat Urea Bags, which will help companies market fertilisers under the single brand name 'Bharat'.

PM Gati Shakti Multimodal Waterways Summit 2022

In News

With the aim to further strengthen the role of inland waterways, the 'PM Gati Shakti Multimodal Waterways Summit 2022' gets underway in Varanasi.

PM Gati Shakti Scheme

- Aim: To ensure integrated planning and implementation of infrastructure projects in the next four years, with focus on expediting works on the ground, saving costs and creating jobs.
- The Gati Shakti scheme will subsume the Rs 110 lakh crore National Infrastructure Pipeline that was launched in 2019.
- Besides cutting logistics costs, the scheme is also aimed at increasing cargo handling capacity and reducing the turnaround time at ports to boost trade.
- It also aims to have 11 industrial corridors and two new defence corridors one in Tamil Nadu and other in Uttar Pradesh. Extending 4G connectivity to all villages is another aim. Adding 17,000 kms to the gas pipeline network is being planned.
- It will help in fulfilling the ambitious targets set by the government for 2024-25, including expanding the length of the national highway network to 2 lakh kms, creation of more than 200 new airports, heliports and water aerodromes.

Eat Right Station' certification

In News

- Recently, Bhopal Railway Station has been awarded a 4- star 'Eat Right Station' certification for providing high-quality, nutritious food to passengers.
- The 4-star rating indicates full compliance by the station to ensure safe and hygienic food is available to passengers.

Eat Right Certification

- The 'Eat Right Station' certification is awarded by Food Safety and Standards Authority of India (FSSAI) to railway stations that set benchmarks in providing safe and wholesome food to passengers.
- The station is awarded a certificate upon a conclusion of an FSSAI-empanelled third-party audit agency with ratings from 1 to 5.
- The certification is part of the 'Eat Right India' movement.

Eat Right Movement

- It is an initiative of FSSAI to transform the country's food system in order to ensure safe, healthy and sustainable food for all Indians. Its tagline is 'Sahi Bhojan, Behtar Jeevan'.
- It is aligned to the National Health Policy 2017 with its focus on preventive and promotive healthcare and flagship programmes like Ayushman Bharat, POSHAN Abhiyaan, Anaemia Mukt Bharat and Swachh Bharat Mission.
- Eat Right India adopts a judicious mix of regulatory, capacity building, collaborative, and empowerment approaches to ensure that our food is suitable both for the people and the planet.

Space Satellites herald Agritech revolution

In News

Shri Narendra Singh Tomar, Union Minister of Agriculture & Farmers Welfare and Minister of State, Dr. Jitendra Singh formally released the data products and services of RISAT-1A satellite for the user community.

RISAT-1A

- RISAT-1A offer include "Revolutionary Radar Images" which is High-End, Strategic Technology mainly used for Defence, but in this case will be widely utilized for civilian use in Agriculture Sector.
- RISAT-1A was the first satellite funded by four users' ministries viz., Ministry of Agriculture & Farmers welfare, Ministry of Jal Shakti, Ministry of Home Affairs and Department of Space.
- This is first of its kind in the Indian space programme, as the data from this satellite is having significant use in agriculture and disaster management sectors.

VEDAS (Visualisation of Earth observation Data and Archival System)-

It is an online geoprocessing platform that uses optical, microwave, thermal, and hyperspectral EO data covering applications particularly meant for academia, research and problem solving.

Urban-20 (U20) event being organised under G20 presidency of India

In News

Under the G20 presidency of India from December 01, 2022 to November 30, 2023, the Ministry of Housing and Urban Affairs is organizing Urban 20 event.

About U20

- During India's G20 presidency, Ahmedabad, a UNESCO World Heritage city, will host the U20 cycle.
- Along with C40 and UCLG, Ahmedabad will organize various events, including a City Sherpas' inception meeting on February 9-10, 2023, thematic discussions and side events on urban development issues, culminating in the U20 Mayors' Summit in July 2023.
- Mayors and representatives from G20 countries, C40, UCLG member cities, and Observer Cities are expected to participate in these events.

Priority areas for Urban 20 event are as follows

- Encouraging environmentally responsive behaviour
- Ensuring water security
- Accelerating Climate Finance
- Leveraging 'local' potential and identity
- Reinventing urban governance and planning frameworks
- Catalysing digital urban futures

Eat Right Station

In News

Varanasi Cantt Railway Station has been awarded a 5- star 'Eat Right Station' certification for providing high-quality, nutritious food to passengers.

Eat Right Station

- The 'Eat Right Station' certification is awarded by FSSAI to railway stations that set benchmarks in providing safe and wholesome food to passengers.
- The station is awarded a certificate upon a conclusion of an FSSAI-empanelled third-party audit agency with ratings from 1 to 5.
- The 5-star rating indicates full compliance by the station to ensure safe and hygienic food is available to passengers.

• The certification is part of the 'Eat Right India' movement- a large-scale effort by FSSAI to transform the country's food system to ensure safe, healthy and sustainable food for all Indians.

Other stations with this distinction include-

- Anand Vihar Terminal Railway Station (Delhi)
- Chhatrapati Shivaji Terminus (Mumbai)
- Mumbai Central Railway Station (Mumbai)
- Vadodara Railway Station
- Chandigarh Railway Station
- Bhopal Railway Station

Incentive scheme for promotion of RuPay Debit Cards and low-value BHIM-UPI transactions (P2M)

In News

The Union Cabinet, chaired by the Hon'ble Prime Minister Shri Narendra Modi, has approved the incentive scheme for promotion of RuPay Debit Cards and low-value BHIM-UPI transactions (person-to-merchant) for a period of one year from April 2022.

About the incentive scheme

- The scheme has a financial outlay of ₹ 2,600 crore.
- Under the said scheme, acquiring banks will be provided financial incentive, for promoting Point-of-Sale (PoS) and e-commerce transactions using RuPay Debit Cards and low-value BHIM-UPI transactions (P2M) for the current financial year FY 2022-23.
- This incentive scheme will facilitate building of a robust digital payment ecosystem and promoting RuPay Debit Card and BHIM-UPI digital transactions.
- In-line with the objective of 'Sabka Saath, Sabka Vikas', the scheme will also promote UPI Lite and UPI 123PAY as economical and user-friendly digital payments solutions and enable further deepening of digital payments in the country, across all sectors and segments of the population.
- National Payments Corporation of India (NPCI) requested, among other things, for incentivisation of BHIM-UPI and RuPay Debit Card transactions to create a cost-effective value proposition for ecosystem stakeholders, increase merchant acceptance footprints and faster migration from cash payments to digital payments.

FSSAI notifies comprehensive regulatory standards for Basmati Rice

In News

For the first time in the country, Food Safety and Standards Authority of India (FSSAI) has specified the identity standards for Basmati Rice.

FSSAI Standards

- Basmati rice shall possess natural fragrance characteristic of basmati rice and be free from artificial colouring, polishing agents and artificial fragrances.
- These standards also specify various identity and quality parameters for basmati rice such as average size of grains and their elongation ratio after cooking; maximum limits of moisture, amylose content, uric acid, defective/damaged grains and incidental presence of other non-basmati rice etc.

- The standards are aimed at establishing fair practices in the trade of Basmati rice and protect consumer interest, both domestically and globally.
- These standards will be enforced w.e.f 1st August, 2023.

Basmati Rice

- Basmati rice is a premium variety of rice cultivated in the Himalayan foothills of the Indian sub-continent and is universally known for its long grain size, fluffy texture and unique inherent aroma and flavour.
- Agro-climatic conditions of the specific geographical areas where Basmati rice is grown; as well as the method of harvesting, processing and ageing of the rice contributes to the uniqueness of Basmati rice.
- Due to its unique quality attributes, Basmati is a widely consumed variety of rice both domestically and globally and India accounts for two thirds of its global supply.
- Being a premium quality rice and fetching a price higher than the non-basmati varieties, Basmati rice is prone to various types of adulteration for economic gains which may include, among others, undeclared blending of other non-basmati varieties of rice.

Science & Tech

Solid State Batteries

In News

Car manufacturer Volkswagen plans to have production running for solid-state batteries by 2025 via the partnership with Quantum Scape.

About Solid State Batteries

- A solid-state battery has higher energy density than a Lithium-ion battery that uses liquid electrolyte solution. It doesn't have a risk of explosion or fire, so there is no need to have components for safety, thus saving more space. Then we have more space to put more active materials which increase battery capacity in the battery.
- A solid-state battery can increase energy density per unit area since only a small number of batteries are needed. For that reason, a solid-state battery is perfect to make an Electric Vehicle (EV) battery system of module and pack, which needs high capacity.
- The energy density of lithium-ion cells used in today's mobile phones and electric vehicles is nearly four times higher than that of older-generation nickel-cadmium batteries.
- Despite improvements in technology over the last decade, issues such as long charging times and weak energy density persist. While lithium-ion batteries are seen as sufficiently efficient for phones and laptops, they still lack the range that would make EVs a viable alternative to internal combustion engines.

Advanced Chemistry Cell Battery Storage

In News

The government has approved the Production Linked Incentive (PLI) scheme, National Programme on Advanced Chemistry Cell Battery Storage.

About the programme

• This programme aims at achieving the manufacturing capacity of 50 GW (GigaWatt) hour that would enhance India's manufacturing potential boosting the vision of self-reliance.

- The government is all set to emphasise more on greater domestic value addition at same time ensure that the levelized cost of battery manufacturing in India is globally competitive.
- It will also promote fresh industry investments in indigenous supply chain for battery manufacturing in the country.

Advanced Light Helicopter MK III

In News

The indigenous Advanced Light Helicopter MK III was inducted at INS Utkrosh by the Commander-in-chief, Andaman and Nicobar Command at Port Blair.

About MK-III

- This advanced light helicopter is manufactured by Hindustan Aeronautics Limited (HAL) and it exemplifies a major leap of the defense sector in India towards self-reliance or Atma Nirbharta.
- The MK III is equipped with a glass cockpit, shakti engines (manufactured by HAL), advanced maritime patrol radar, electro-optical payload and a night vision device.
- This will act as a force multiplier in retaining the safety of India's far eastern seaboard and island territories.
- It is provided with state of the art sensors and weapons that add to India's preparedness in terms of maritime security.
- The advanced light helicopter is capable of carrying out maritime surveillance, offering support to the special forces, medical evacuations and delivering rescue roles.

Perovskite solar cells

In News

Indian scientists have devised a new process for increasing the efficiency and stability of Titanium dioxide (TiO2) nanorods based on Perovskite Solar Cells (PSC).

Perovskite solar cells

- Perovskites are a family of materials with a specific crystal structure, named after the mineral with that structure.
- When used to create solar cells, they have shown potential for high performance and low production costs.

Nanorods

- Nanorods are one-dimensional structures that provide a directed path for electrical transport.
- They are used to control the band gap by varying the radius of rods and using the quantum size effect.
- Nanorods are nanostructures that are the object of fundamental and applied research.
- They may be prepared from carbon, gold, zinc oxide, and many other materials.

Sub-Mission on Agriculture mechanisation (SMAM)

In News

The Union Ministry of Agriculture and Farmers Welfare have released guidelines to promote drone technology in agriculture in order to boost precision farming in India.

About the Programme:

- Grant up to Rs 10 lakhs will be offered to the agricultural institutes for the purchase of drones.
- Custom hiring centres will be set up by the Cooperative Society of Farmers, FPOs and rural entrepreneurs to obtain financial support for purchasing purposes.

- The entire programme intends to make technology accessible to common people and enhance domestic drone production.
- The drone operations are being permitted by the Ministry of Civil Aviation and the Director General of Civil Aviation.
- The Department of Agriculture & Farmers Welfare has introduced the Standard Operating Procedures for the use of drone applications.

About SMAM:

- This sub-mission operates under the aegis of the National Mission on Agricultural Extension & Technology (NMAET) which aims to incorporate new institutional arrangements for technology dissemination in agriculture.
- There are four sub-missions under the NMAET of which SMAM is also a part.

Application of Drones

- This technology helps the farmers in data collection related to planting and in treatments to achieve best possible crop yields.
- It can be beneficial for precision agriculture.
- Drones are beneficial in monitoring the plant health
- It is also beneficial for examining field conditions.
- It enables spray applications which are extensively used in countries like south-east Asia and South Korea.

Open Data Week'

In News

The Ministry of Housing and Urban Affairs (MoHUA) announced the initiation of the Open Data Week.

Open Data Week

- Open Data Week includes the celebration of a Data Day by all smart cities on 21st January 2022.
- The Data Day aims to provide a platform that offers ample opportunities on how to continue creating and promoting the use of data that addresses complex urban issues.
- The Open Data Week is part of a series of pre-event initiatives being undertaken by MoHUA to promote awareness and use of open data.

A star with a heartbeat

In News

A group of Indian Scientists have spotted a peculiar binary star that shows a heartbeat but no pulsations.

Major Findings of the study

- The star spotted has been named HD73619 in Praesepe (M44), located in the Cancer constellation which is one of the closest open star clusters to the Earth.
- There are 180 stars known to have heartbeats.
- These heartbeat stars are binary systems where each star travels in a highly elliptical orbit around the common centre of mass.
- The scientists inferred that the pulsation activity of these stars is due to the oscillations in the component stars when they are closest to each other. Chemically this makes it evident that such oscillations happen due to the abundance of heavier elements on their surface.
- The newly discovered heartbeat star is accompanied by a weak magnetic field or no magnetic field.

Importance of the Discovery

- This research has been a result of the Nainital-Cape survey which is one of the longest ground-based surveys to search and study the pulsation variability of the stars. This study was carried out in collaboration with the South African Astronomical Observatory (SAAO) in Cape Town.
- This is an exemplary step that reveals India's progress in the field of space sciences and its growing engagement with international communities in the same context.

CSIR – National Physical Laboratory: Platinum Jubilee Celebrations

In News

The CSIR – National Physical Laboratory commemorated its 75th year of foundation.

About the Event

- A special commemorative postage stamp was released to begin the occasion along with the establishment of the LED Photometry Laboratory that envisages developing energy-efficient illumination technology.
- This will save foreign exchange spent on availing the testing and calibration services from abroad and reduce turn-around time pertaining to LED lighting products.
- Certification for Indian made Ambient Ozone Analyzers was also launched.
- The calibration facility for Infusion Pump Analyzer was launched to test infusion pumps along with the certification process for Indian made Low Volume PM2.5 Sampler to fight pollution.
- With the aim to propagate awareness about the metrology related activities of CSIR-NPL, a fully responsive website has been created.

About CSIR-NPL

- The National Physical Laboratory was conceptualized in 1943 by the governing body of CSIR. The Foundation stone was laid on the 4th of January, 1947.
- It is situated in New Delhi.
- It acts as the premier laboratory with the responsibility of the dissemination of measurements to the needs of the country.
- Mandated as India's National Measurement Institute, the NPL acts as the custodian of maintaining the National Standards, for example, the Indian Standard Time.

INS Khukri

In News

The decommissioned naval ship INS Khukri was handed over to the Diu administration so that it can be transformed into a full-scale museum.

INS Khukri

- This missile corvette was decommissioned after 32 years of service and it had been a part of the western and eastern fleets.
- It was built by the Mazagon Dock Shipbuilders, according to the Indian Navy.
- This missile corvette was commanded by 28 commanding officers and travelled over 6,44,897 nautical miles.
- The museum will be located in the same location as the existing Khukri Memorial where the scaled-down version of the first INS Khukri (F 149) was placed. The F 149 was a blackwood class anti-submarine frigate.
- The first INS Khukri was lost during the Indo-Pakistan war of 1971 off the coast of Diu.
- It is the second INS Khukri that was recently handed over to the Diu administration for revamping the Khukri Memorial.

Artificial Neural Network (ANN)

In News

Recently, the global Artificial Neural Network (ANN) Market report was published. It is an information bank that delivers comprehensive information about the market ranging from the establishment to the predictable growth trend.

About AAN

- It is a vital subset of machine learning that helps computer scientists in their work on complex tasks, such as, strategizing, making predictions, and recognizing trends.
- It is a computational model that mimics the way nerve cells work in the human brain. It is designed to simulate the way the human brain analyzes and processes information.
- It is not like other machine learning algorithms that crunch numbers or organise data, it is an algorithm that learns from experience and repeated tasks performed by its users.
- It is also known as a Neural Network (NN). ANN is a computational model based on the functions and structure of biological neural networks.

Telecommunication Engineering Center (TEC)

In News

The Telecommunication Engineering Center (TEC) has invited inputs for developing a framework for fairness assessment of Artificial Intelligence (AI)/ Machine Learning (ML) Systems.

Telecommunication Engineering Center (TEC)

- The Telecommunication Engineering Center is a body under telecom commission and a nodal agency of the Department of Telecommunications, Ministry of Communications and Information Technology, Government of India.
- It is responsible for drawing up standards, generic requirements, interface requirements, service requirements and specifications for telecom products, services and networks.
- Objectives:
 - Develop new specifications and update the existing ones in order to keep pace with the global development.
 - Establishment of state-of-art telecom laboratories.
 - o Active participation in professional bodies such as ITU, IETF, APT etc. to protect the country's interests.

An Observation from the Devasthal Observatory

In News

An important observation pertaining to the atmospheric pressure at the surface of Pluto has been made by a team of Indian scientists from the Devasthal observatory along with their international counterparts.

About the observation:

- It was found that the atmospheric pressure on the surface of Pluto is 80,000 times less than the atmospheric pressure at mean sea level on Earth.
- The Devasthal optical telescope was used to provide data that helped in the calculation of the atmospheric pressure of Pluto. It was calculated by the observation of stellar occultation by Pluto on a particular day.
- In astronomy, occultation occurs when a celestial object gets hidden from the view of the observer due to another celestial object passing in between them.

- Such an event has been observed in a compilation of twelve stellar occultations by Pluto within a span of 1988 and 2016. It has been observed that there is a three-fold monotonic increase of atmospheric pressure of Pluto.
- An international team of scientists along with members from the Aryabhatta Research Institute of Observational Sciences used signal to noise ratio to determine the atmospheric pressure at the surface of Pluto.
- The team explained further that this occultation was particularly timely as it can assess the current models of the atmospheric evolution of Pluto.

Facts about Pluto:

- It is categorised as the dwarf planet in the Kuiper belt which is a donut-shaped region of icy bodies beyond the orbit of Neptune.
- It is 1400 miles wide and orbits the sun about 3.6 billion miles away on an average.
- A year of Pluto consists of 248 Earth years and a day on Pluto lasts 153 hours.
- Its atmosphere is thin and has nitrogen, methane and carbon monoxide.
- Pluto has 5 moons and the largest one is called Charon.
- It doesn't have any ring system.
- New Horizons of NASA was the only spacecraft to visit Pluto.
- The surface is harsh and cold with a temperature of -378 to 396 degrees Fahrenheit.

Devasthal Optical Telescope:

- It is 3.6 metre long clear aperture telescope which was built by Aryabhatta Research Institute of Observational Sciences (ARIES) and is located at the Devasthal Observatory near Nainital, Uttarakhand.
- It has been built in collaboration with the Belgian firm Advanced Mechanical and Optical System.
- It was activated remotely in 2016 by the Prime Ministers of India and Belgium.
- ARIES operates another 1.3 m telescope at the same location.
- This is presently the largest telescope in Asia.

Vigyan Sarvatra Pujyate

In News

As part of Azadi ka Amrit Mahotsav, the Government's various science and technology organisations are celebrating a week-long programme called **Vigyan Sarvatra Pujyate**.

Vigyan Sarvatra Pujyate

- A programme titled Vigyan Sarvatra Pujyate is being held to celebrate the S&T achievements of India over the past 75 years.
- It is being held at 75 locations across the length and breadth of the country
- As a part of the program, a science & technology mega expo and National Science Book Fair is being held in New Delhi.
- This program is jointly organised by the Department of Science and Technology, Department of Biotechnology, Council of Scientific and Industrial Research, Ministry of Earth Sciences, Department of Atomic Energy, Department of Space, Indian Council of Medical Research, All India Council for Technical Education, and Defence Research Development Organisation. Under the leadership of the office of the Principal Scientific Officer to the Government of India and the Ministry of Culture.
- Vigyan Prasar, an autonomous organization of DST, is the coordinating agency.
- AIM- Reinforce the commitment of the scientific community towards the economic and social development of the country.

PARAM Ganga

In News

Petascale Supercomputer "PARAM Ganga" established at IIT Roorkee under National Supercomputing Mission.

Details

- NSM has now deployed "PARAM Ganga", a supercomputer at IIT Roorkee, with a supercomputing capacity of 1.66 Petaflops.
- The system is designed and commissioned by C-DAC under Phase 2 of the build approach of the NSM. Substantial components utilized to build this system are manufactured and assembled within India along with an indigenous software stack developed by C-DAC, which is a step towards the **Make in India** initiative of the Government.
- Availability of such a supercomputer will accelerate the research and development activities in multidisciplinary domains of science and engineering with a focus to provide computational power to user community of IIT Roorkee and neighbouring academic institutions.

About NSM

- The National Supercomputing Mission (NSM) which is being steered jointly by Ministry of Electronics & Information Technology (MeiTY) and the Department of Science and Technology (DST) and implemented by Centre for Development of Advanced Computing (C-DAC) and Indian Institute of Science (IISc), Bangalore, has progressed significantly.
- The four major pillars of the NSM, namely, Infrastructure, Applications, R&D, HRD, have been functioning efficiently to realize the goal of developing indigenous supercomputing eco system of the nation.
- C-DAC has been entrusted the responsibility to design, development, deployment and commissioning of the supercomputing systems under the build approach of Mission.
- The Mission plans to build and deploy 24 facilities with cumulative compute power of more than 64 Petaflops.
- Till now C-DAC has deployed 11 systems at IISc, IITs, IISER Pune, JNCASR, NABI-Mohali and C-DAC under NSM Phase-1 and Phase-2 with a cumulative compute power of more than 20 Petaflops.
- Total 36, 00,000 computational jobs have been successfully completed by around 3600 researchers across the nation on the NSM systems to date.
- The supercomputer infrastructure installed at various Institutes across the country have helped the R&D community to achieve major milestones, objectives and products for scientific and societal applications.

1st Gati Shakti Cargo Terminal commissioned

In News

- In pursuance to Prime Minister's vision "Gati Shakti" and Ministry of Railways' Policy regarding 'Gati Shakti Multi-Modal Cargo Terminal' (GCT), Asansol division of Indian Railways has successfully commissioned private siding of Maithan Power Limited at Thaparnagar.
- This is the FIRST such GCT commissioned in Indian Railways since publication of GCT policy in Dec.'2021.

Maithan Project

- The Maithan Power Project was initiated in the year 2009 and subsequently the power generation was started in the year 2011.
- Till now the requirement of coal to the power project was being made through road which is expected to convert into 120 inward coal rakes per month.
- Also 02 to 04 outward rakes of Fly Ash is projected to be handled from the siding.

- This will enhance Railways' earnings by approximately Rs. 11 crores per month.
- The location is in the vicinity of industrial and mining area and the future prospect of the siding is promising.

Touch-less touch screen technology

In News

Bengaluru based scientists from the Centre for Nano and Soft Matter Sciences (CeNS), and Jawaharlal Nehru Centre for Advanced and Scientific Research (JNCASR) has set up a semi-automated production plant for the production of printing-aided patterned (resolution of around 300 μ m) transparent electrodes, which has the potential for being utilized in advanced touchless screen technologies.

About the Technology

- This work by the team led by Prof. G U Kulkarni and co-workers and funded by DST-Nanomission at CeNS has been published recently in the journal *'Materials Letters'*.
- Scientists have fabricated a touch sensor which senses a proximal or hover touch even from a distance of 9 cm from the device.
- The novel low-cost patterned transparent electrodes have tremendous potential to be used in advanced smart electronic devices like touchless screens and sensors.
- This touchless touch sensor technology could assist in preventing the spread of viruses that spread through contact.

National Smart Grid Mission

In News

National Smart Grid Mission (NSGM) was established by Government of India in 2015 to plan and monitor implementation of policies and programmes related to Smart Grid activities in India.

Features of NSGM

- The primary aim of the Smart Grids is to improve reliability of the Electricity networks and make the grid amenable to renewable energy inputs through distributed generation.
- Further, increased efficiencies with Smart Grid and Smart Meters empower the consumers to manage their electricity consumption in a better manner and help them in reducing their bills.
- In addition, the NSGM also envisages capacity building initiatives for Distribution Sector personnel in the field of Smart grids.
- Large scale deployment of prepaid smart meters has been done by Energy Efficiency Services Limited (EESL) in Bihar.

Phone Tracing Under CEIR Project

In news

The Central Equipment Identity Register (CEIR) project has been launched in Delhi, Mumbai and Maharashtra licensed service areas (LSAs) in a phased manner to facilitate blocking and tracing of lost and stolen mobile phones.

Details

• As per the reports from CEIR system, the request for blocking of 169667, 8315 and 11848 International Mobile Equipment Identity (IMEI) have been received till 20.03.2022 for Delhi, Mumbai and Maharashtra LSAs respectively.

• The traceability data for 110239, 4586 and 8317 IMEIs have been made available to police of Delhi, Mumbai and Maharashtra respectively to facilitate recovery of handsets.

About CEIR

- CEIR is a multi-stakeholder system where respective stakeholders including Department of Telecommunications, Telecom Service Providers, Police, Mobile phone manufacturers and mobile phone subscribers have a limited access as per their defined roles and responsibilities.
- Currently, this includes the information to the subscriber about the make & model corresponding to IMEI of his/her mobile handset, information to mobile phone manufacturers about genuineness of IMEI during import of consignment of mobile phones etc.

TASK FORCE FOR IMPLEMENTATION OF AI

In News

To study the whole gamut of issues surrounding strategic implications of Artificial Intelligence (AI) in national security perspective, the Ministry of Defence (MoD), Department of Defence Production (DDP) set up a multistakeholder Task Force in March 2018 under the Chairmanship of Sh. N Chandrasekaran, Chairman, Tata Sons.

Major recommendations

- Integrating and embedding AI strategy for Defence with Defence strategy.
- Establishment of a High level Defence AI Council(DAIC) and a Defence AI Project Agency (DAIPA).
- Development of Data Management Framework, Establishing Data Management Office and appointing Data Management Officer.
- Scaling the existing capability of Data Centers and establishing a centrally facilitated network of Test Beds.
- Organising AI training courses in all Defence training centers and institutes for training of Defence Personnel.
- Earmarking of AI budget from yearly Defence Budget with a corpus of Rs 1,000 crores to be provided each year for next 5 years to support AI activities.

LIGO-India Project

In News

Union Minister of State (Independent Charge) Science & Technology; MoS PMO, Personnel, Public Grievances, Pensions, Dr Jitendra Singh said that Government of India accorded In-principle approval for Laser Interferometer Gravitational wave Observatory (LIGO)-India project at an estimated cost of Rs. 1260 crore.

About Project

- The project involves constructing a network of L-shaped arms, each four kilometres long, which can detect even the faintest ripples from cosmic explosions millions of light years away.
- The project, piloted by the Department of Atomic Energy and Department of Science and Technology and is expected to be ready by 2025.
- LIGO India is a planned advanced gravitational-wave observatory to be located in India as part of the worldwide network.
- The LIGO project operates three gravitational-wave (GW) detectors. Two are at Hanford in the State of Washington, north-western USA, and one is at Livingston in Louisiana, south-eastern USA.
- The LIGO-India project is an international collaboration between the LIGO Laboratory and three lead institutions in the LIGO-India consortium: Institute of Plasma Research, Gandhinagar; IUCAA, Pune; and Raja Ramanna Centre for Advanced Technology, Indore.

Gravitational Waves

- Gravitational waves are distortions or 'ripples' in the fabric of space-time caused by some of the most violent and energetic processes in the Universe.
- They transport energy as gravitational radiation and pass through matter without interacting with it.

Step-Up to End TB – World TB Day Summit

In News

Union Health Minister, Dr Mansukh Mandaviya will inaugurate the Step - Up to End TB- World TB Day Summit on the occasion of World TB Day (24th March 2022) at Vigyan Bhawan, New Delhi.

About Summit

- The Ste-Up to End World TB Day Summit of 24th March 2022 is not only a follow-up to 2018 that gauges how far and to what degree India has progressed in its journey to TB elimination; it is also a reiteration of India's TB commitments, and an effort to assemble the right minds as the country moves forward to meet its TB elimination objectives.
- The Summit will provide a forum to showcase the National TB Elimination Programme's learnings and successes and frame it in a manner that inspires more forward-looking policies across infectious diseases, and not just TB alone.
- From vaccine development to the need for greater inter-departmental/ministerial and inter-state collaborations, the event aims to be an incubator for TB mitigation ideas that are disruptive and cognizant of a changing post-COVID world order.

About TB Day

- Theme- 'Invest to End TB. Save Lives.
- World Tuberculosis (TB) Day is observed on 24th March every year to raise public awareness about the devastating health, social and economic consequences of TB and to step up efforts to end the global TB epidemic.
- The date 24th March is chosen to commemorate the anniversary of Dr. Robert Koch's discovery of the cause of Tuberculosis (Mycobacterium Tuberculosis) in 1882.

Rheumatoid Arthritis

In News

Ministry of Ayush is conducting the world's first multicenter phase III clinical trial examining the efficacy of Ayurveda in the treatment of Rheumatoid Arthritis.

About Project

- This project is one of the first multi-center phase III double blind double dummy clinical trials on the efficacy of Ayurveda in the management of Rheumatoid Arthritis.
- This will be conducted by AVP Research Foundation, a research institution affiliated with The Arya Vaidya Pharmacy (Coimbatore) Ltd and the Central Council for Research in Ayurveda (CCRAS), a government of India agency under the Ministry of Ayush.
- Dr. Edzard Ernst, world renowned rheumatologist, currently the Director of Clinical Research at Arthritis Association of South California (AASC) and a vociferous critic of CAM, endorsed the study as a model for future investigations on Complementary and Alternative Medicine (CAM).

Rheumatoid arthritis

- Rheumatoid arthritis is the long-lasting, most common type of autoimmune disorder that causes chronic inflammation of the joints and other parts of the body.
- This occurs when the immune system of individuals mistakenly attacks their joint lining capsule or body tissues.
- In some people, it is found that Rheumatoid Arthritis (RA) also damages skin, lungs, eyes, kidneys and blood vessels.

New rare chemical Reference Materials to strengthen anti-doping testing

In News

In a breakthrough achievement, the National Dope Testing Laboratory (NDTL) has indigenously developed six new and rare Reference Materials (RMs), which is the purest form of chemical required for anti-doping analysis in all WADA-accredited Laboratories across the world.

About Material

- The six RMs have been developed in less than a year by NDTL in association with the National Institute of Pharmaceutical Education and Research (NIPER)-Guwahati and the CSIR-Indian Institute of Integrative Medicine (IIIM), Jammu.
- With the creation of these RMs NDTL has earned itself the recognition of being one of the few labs in the world where such RMs have been developed.
- The availability of these rare Reference Materials would help the entire anti-doping community to strengthen their testing capabilities and usher in an era of mutual co-operation among countries for promoting fair play in sports policy world over.
- Out of the six Reference Materials launched, three each were synthesized in collaboration with NIPER-Guwahati and CSIR-IIIM, Jammu.

Benefits

The launch of these Reference Materials will ensure improved anti-doping testing which is in line with the Sports Ministry's commitment towards promotion and effective implementation of anti-doping programmes in the country with the sole objective of fair play in sports.

National Virtual Library of India

In News

The Indian Culture Portal has a total of about 2.98 lakh digital artefacts, with metadata and more than 34 lakh bibliographic entries.

Details

- The Government has implemented a National Virtual Library of India (NVLI) through the Indian Culture Portal, www.indianculture.gov.in in collaboration with IIT Bombay, Mumbai.
- The **objective** of NVLI is to provide a platform for the digital preservation of diverse cultural artefacts and to create awareness and a sense of collective ownership among citizens about their shared heritage.
- The portal is currently available in English & Hindi and can be accessed through an App called Indian Culture, available on both Android phones and iPhone.

Features of NVLI

- An all-inclusive Digital Platform to provide access to multiple cultural resources such as the national and state archives, libraries and district gazetteers which will cater to all sections of the society.
- Data Collection and Curation Data is collected from the various MoC organisations. The data thus received is duly curated.
- **Data Harvesting** Curated data is harvested into a common repository and made available to the public on the Indian Culture Portal.
- Free Access Free access to archival resources and documents
- Advanced and User-friendly interface Easy navigation of the portal allows the user to reach the desired result quicker.
- Accessible by the Visually Impaired The portal has specific features and functionalities that allow visually impaired to read and access the portal without difficulty.

EOS-02 satellite

In News

Union Minister of State (Independent Charge) Science & Technology; Dr Jitendra Singh said that EOS-02 satellite will be launched in second quarter of 2022.

About ES-02

EOS-02 is Technology demonstration satellite for various new technologies with applications that include agriculture, forestry, geology, hydrology, miniaturised power electronics, reaction wheels etc. and forming the payload for SSLV-1.

Details of EOS series satellite

- EOS-01: Earth Observation satellite meant for Agriculture, Forestry & disaster management support
- **EOS-02**: Technology demonstration satellite for various new technologies with applications that include agriculture, forestry, geology, hydrology etc. and forming the payload for SSLV-1.
- **EOS-03**: First Agile Earth Observation satellite in Geostationary orbit and applications which include near real time imaging, quick monitoring of natural disasters, spectral signatures for agriculture, forestry etc.
- **EOS-04:** Radar Imaging satellite meant to provide high quality images under all weather conditions for applications such as Agriculture, Forestry & Plantations, Soil Moisture & Hydrology and Flood Mapping.
- EOS-05: Earth Observation Satellite in the Geostationary Orbit.
- **EOS-06**: Earth Observation satellite meant for applications, which include ocean related services and advisories towards potential fishing zone forecast, ocean state forecast.

Geomagnetic storm

In News

- According to the Space Weather Prediction Center of National Oceanic and Atmospheric Administration (NOAA), Earth will be slammed by a geomagnetic storm on 7th April2022.
- It will, be a modest one, according to NOAA, which has classified it as G1.

About Geomagnetic Storm

Geomagnetic storms also known as Magnetic storms are caused when events such as solar flares can send higher than normal levels of radiation towards Earth. This radiation interacts with the Earth's magnetic field causing a geomagnetic storm.

Causes

- A solar coronal mass ejection (CME) or (much less severely) a co-rotating interaction region (CIR), a highspeed stream of solar wind emanating from a coronal hole, could be the source of the magnetic storm.
- With the solar cycle, the frequency of geomagnetic storms rises and falls.
- At solar maximum, geomagnetic storms are more common, with CMEs causing the majority of them.

Types of Geomagnetic Storms

- At its safest level, a G1 storm affects power grids by causing weak fluctuations, minor impacts on satellite operations, and causes the northern and southern lights to occur.
- At its most extreme, G5, there would be voltage control problems with some grid system collapses or blackouts, radio waves wouldn't be able to travel for one to two days, low-frequency radio would be out for hours, and the auroras would be able to be seen at lower latitudes than usual.

Hybrid material to absorb Greenhouse gas

In News

A group of scientists have computationally designed a hybrid material which can absorb greenhouse gas methane, converting it to clean Hydrogen and also simulated a process of capturing carbon dioxide in-situ and converting it to high purity hydrogen from non-fuel grade bioethanol.

About the Research

- Scientists have not only computationally designed a hybrid material that can capture methane and also act as catalyst to convert it to high purity hydrogen, but also simulated and designed a process for *in situ* capture of carbon dioxide and its conversion to high purity hydrogen from non-fuel grade bioethanol through a mechanism called the optimized intensified chemical looping reforming.
- The facility, a dual operational fixed cum fluidized bed reactor system (FBR) can carry out sorption enhanced steam methane reforming (SESMR) for high purity H₂ production based on the modelling and preliminary experimental studies.

FBR facility

- The FBR facility has been successfully commissioned recently in Jan 2022 at CSIR-IICT, Hyderabad, under a Mission Innovation Project supported by Department of Science and Technology to IICT Hyderabad.
- It is unique and available for the first time in the country to test the performance of dual functional materials for SESMR in fluidized bed reactor system.
- SESMR offers specific advantages of *in-situ* CO₂ removal through sorbents and thereby overcomes the equilibrium limitations of steam reforming and leads to high purity H₂ production.

Indigenous Intelligent Transportation Systems (ITS) Solutions

In News

An indigenous Onboard Driver Assistance and Warning System – ODAWS, Bus Signal Priority System and Common SMart iot Connectiv (CoSMiC) software have been launched under Intelligent Transportation System Endeavor for Indian Cities Phase-II initiative of Ministry of Electronics and Information Technology (MeitY).

About ITS

The product was developed as a joint initiative by Centre for Development of Advanced Computing (CDAC) and Indian Institute of Technology Madras (IIT-M). Mahindra and Mahindra was the industrial collaborator for the project.

Onboard Driver Assistance and Warning System - ODAWS

- It incorporates vehicle-borne sensors for monitoring driver propensity and vehicle surroundings to deliver acoustic and visual alerts for driver assistance.
- The project involves the development of sub-modules such as the navigational unit, driver assistance console, and mmWave radar sensor.
- The positional and dynamic characteristics of surrounding vehicles are probed using mmWave radar sensors.
- The ODAWS algorithm is used to interpret sensor data and offer real-time notifications to the driver, boosting road safety.

Bus Signal Priority System

- It is an operational strategy that modifies normal traffic signal operations to better accommodate in-service public buses at signal-controlled intersections.
- Unlike a blind priority that is given for emergency vehicles, here it is a conditional priority, which is given only when there is an overall reduction in delay for all vehicles.

Common SMart iot Connectiv (CoSMiC)

- It is a middleware software providing standard based deployment of IoT adhering to oneM2M based global standard. It facilitates users and application service providers in various vertical domains to use application agnostic open standards and open interfaces for end to end communication with well-defined common service functionalities complying with oneM2M standard.
- With this in view, CoSMiC common service layer is used to interface any vendor specific standards and for increasing interoperability with smart city dashboard.

Plasma-based green disinfectants can limit spread of infectious diseases

In News

Researchers have developed a plasma-based disinfectant generated with the help of cold atmospheric pressure plasma (CAP) which could act as a green decontaminant for COVID 19.

About Plasma

- Plasma, the fourth state of matter which makes up most of the universe when produced in controlled conditions in the lab and are termed as Cold Atmospheric Pressure Plasma (CAP).
- The scientists passed plasma forming gases such as Helium, Argon, and Air through a high voltage electric field which led to the formation of a stable plasma with a mixture of ions, and electrons emitting a pink glow of CAP inside the reaction chamber.
- Short-lived highly reactive oxygen and nitrogen species (ROS/RNS) generated in the plasma led to complete deactivation of the SARS-CoV-2 Spike protein occurs within 2 min of CAP treatment.
- The RT-PCR analysis has also established that CAP can deactivate the RNA of the SARS-CoV-2 virus.
- The researchers showed that the CAP, a plasma-based disinfection method is a better alternative to environmentally hazardous chemical-based decontamination methods.
- The cold atmospheric plasma is environmentally safe since, during the entire decontamination process by plasma treatment, no chemical waste is produced.

India's first pure green hydrogen plant commissioned

In News

Oil India Limited (OIL) has taken the first significant step towards Green Hydrogen Economy in India with the commissioning of India's First 99.999% pure Green Hydrogen pilot plant, with an installed capacity of 10 kg per day at its Jorhat Pump Station in Assam.

Details

- The plant was commissioned in a record time of 3 months.
- The plant produces Green Hydrogen from the electricity generated by the existing 500kW Solar plant using a 100 kW Anion Exchange Membrane (AEM) Electrolyser array.
- The use of AEM technology is being used for the first time in India.
- This plant is expected to increase its production of green hydrogen from 10 kg per day to 30 kg per day in future.
- The company has initiated a detailed study in collaboration with IIT Guwahati on blending of Green Hydrogen with Natural Gas and its effect on the existing infrastructure of OIL.
- The company also plans to study use cases for commercial applications of the blended fuel.

AEM technology

- Anion exchange membranes are used in electrolytic cells and fuel cells to separate reactants present around the two electrodes while transporting the anions essential for the cell operation.
- An important example is the hydroxide anion exchange membrane used to separate the electrodes of a direct methanol fuel cell (DMFC)[1] or direct-ethanol fuel cell (DEFC).

MoU between CSIR and iCreate

In News

The Chief Minister of Gujarat, Shri Bhupendra Patel presided over the MoU signing between the Government of Gujarat's flagship technology incubator - iCreate (International Centre for Entrepreneurship and Technology) and the Council of Scientific and Industrial Research (CSIR), the premier research and development body of the Government of India.

About the MoU

- The MoU will foster rapid economic development and help create world-class start-ups
- iCreate to help establish new start-up incubators at select CSIR labs to boost commercialisation of CSIR's innovations
- CSIR to provide access to its equipment, facilities as well as scientific manpower to iCreate's start-ups
- CSIR and iCreate to jointly work on creating tech innovation-based commercial solutions to address large challenges facing the country
- CSIR will explore new ways of financially supporting innovative start-ups
- Under the MoU, CSIR and iCreate intend to establish a collaborative support system for promising tech startups by making combined resources available for entrepreneurs and innovators in the country.
- **iCreate** will help set up new incubators at identified CSIR labs. Such start-ups will access CSIR's equipment, facilities, and scientific manpower.
- **CSIR** will provide intellectual property support and explore methods of financially supporting innovative start-ups from India to boost emerging entrepreneurs.

About iCreate:

- iCreate (International Centre for Entrepreneurship and Technology) is an autonomous centre of excellence of the Government of Gujarat and is India's largest institution for transforming start-ups based on tech innovation into successful businesses.
- Located in a state-of-the-art 40-acre campus at Dev Dholera in Ahmedabad, to date it has supported over 412 innovations and 30+ patents with a 'high-touch, entrepreneur first model, connecting them with mentors, markets and money.

About CSIR:

- The Council of Scientific & Industrial Research (CSIR), known for its cutting-edge R&D and Industrial knowledge base in diverse S&T areas, is a contemporary R&D organisation.
- CSIR has a dynamic network of 37 national laboratories, 39 outreach centres, one Innovation Complex, and three units with a pan-India presence.

Digital India RISC-V (DIR-V)

In News

As one of the concrete steps towards realizing the ambition of self-reliance and a momentous stride towards "Atmanirbhar Bharat", Shri Rajeev Chandrasekhar announced **Digital India RISC-V Microprocessor (DIR-V) Program** with an overall aim to enable creation of Microprocessors for the future in India, for the world and achieve industry-grade silicon & Design wins by December'2023.

RISC-V

- RISC-V Instruction Set Architecture (ISA) is not only witnessing a quantum leap and unprecedented levels of processor innovation owing to its free and open nature but also pushing the Moore's Law beyond its limits.
- RISC-V ISA, being available in Open-Source.
- RISC-V will pave the way for next decade of computing design and innovations and adoption in futuregeneration of processors.

Lucy mission

In News

NASA's Lucy mission — set to explore a group of asteroids that follow behind and in front of Jupiter's orbit — hit a snag recently when one of its solar arrays failed to unfurl.

Lucy Mission

- The Lucy mission is a NASA probe that will explore a set of asteroids near Jupiter known as the Trojans.
- These ancient space rocks hold important clues to the creation of our solar system and, potentially, the origin of life on Earth.
- Lucy is named for a famous female Australopithecus afarensis fossil found in Ethiopia that, as a relative of modern humans, helped illuminate the evolution of our species.
- It is hoped that the spacecraft Lucy will similarly elucidate our solar system's earliest days.
- Launched in October 2022, this is NASA's first mission to explore the Jupiter Trojan asteroids.
- It is a solar-powered mission.
- It is estimated to be over 12 years long, during the course of which the spacecraft will visit eight asteroids covering a distance of about 6.3 billion km to deepen the understanding of the "young solar system".

Trojan Asteroids

- The probe's main objects of study are the Trojan asteroids.
- These objects are thought to be remnants from the primordial disk that formed the sun and planets, which were captured by Jupiter's gravity sometime near the beginning of the solar system.

GAGAN based LPV approach Procedure

In News

Airports Authority of India (AAI) successfully conducted at Kishangarh Airport, Rajasthan light trial using GAGAN (GPS Aided GEO Augmented Navigation) based LPV Approach Procedures.

About LPV

- LPV (Localizer Performance with Vertical Guidance) permits aircraft guided approaches that are operationally nearly equivalent to Cat-IILS, without the need for ground-based navigational infrastructure.
- The service relies on the availability of GPS and GAGAN Geo Stationary Satellites (GSAT-8, GSAT-10 and GSAT-15), launched by ISRO.

GAGAN

- GAGAN is an Indian Satellite Based Augmentation System (SBAS) jointly developed by AAI and ISRO.
- It is the first such system developed for India and neighboring countries in the equatorial region.
- GAGAN System was certified by DGCA in 2015 for Approach with Vertical Guidance (APV 1) and en-route (RNP 0.1) operations.
- There are only four Space-Based augmentation systems available in the world namely India (GAGAN), US(WAAS) Europe (EGNOS) and Japan (MSAS).
- GAGAN is the first such system developed for India and neighboring countries in the equatorial region.

Benefits

- LPV approaches will make it possible to land at airportsnot equipped with expensive Instrument Landing Systems, which includes many small regional and local airports. Lowering the decision height up to 250 ft provides a substantial operational benefit in poor weather and low visibility conditions.
- Thus, any airport which hitherto would require higher visibility minima, will be able to accept aircraft benefitting remote airports which are devoid of precision approach capability equipment.

GMS

- AAI in coordination with Indian National Centre for Ocean Information Services (INCOIS) has implemented GAGAN Message Service (GMS) through which alert messages to fishermen, formers, and disaster affected people will be sent on the occurrence of natural disasters, calamities, such as flood, earthquake etc.
- The additional capabilities of GAGAN are also being explored to utilize it in non-aviation field such as Railways, Surveying, Agriculture, Power sector, Mining etc.

Carbon Sequestration

In News

Oil India Limited signed an MoU with Digboi Forest Division, Assam Forest Department for a project on Carbon Sequestration and Restoration of Degraded Forest Land in Upper Dihing Reserved Forest (west block) under Digboi Forest Division.

Carbon Sequestration

- It is the long-term storage of carbon in plants, soils, geologic formations, and the ocean, can occur both naturally and as a result of anthropogenic activities.
- Carbon dioxide is absorbed by oceans, mainly in two ways- firstly, by enhancing productivity of ocean biological systems through Iron fertilization, secondly by injecting CO2 into the deep ocean, mainly in methyl hydrates.
- **Carbon Sequestration** is a viable option for global leaders to achieve **Net zero emission by 2050** as asserted in the **IPCC Report**, to protect the planet from rising temperature greater than 2°C.

First indegenous Hydrogen Fuelled Electric Vessels

In News

Union Minister for Ports unveiled the Government's plan for building Hydrogen Fuelled Electric Vessels keeping pace with the Global Maritime Green Transitions.

About Project

- The project would be carried out by Cochin Shipyard Limited in collaboration with Indian partners and the ground work in this regard have already begun, wherein Cochin Shipyard Limited has partnered with KPIT Technologies Limited and Indian developers in the areas of Hydrogen Fuel cell, power train and Indian Register of Shipping for developing rules and regulation for such vessels.
- The Hydrogen Fuel Cell Vessel based on Low Temperature Proton Exchange Membrane Technology (LT-PEM) called Fuel Cell Electric Vessel (FCEV) is expected to cost around Rs. 17.50 crores of which 75% would be funded by the Government of India.

Hydrogen Fuel cells

- Hydrogen Fuel cells can be used in a wide range of applications, including transportation, material handling, stationary, portable, and emergency backup power applications.
- Fuel cells operating on hydrogen fuel are an efficient, environmentally-friendly, zero emission, direct current (DC) power source already applied to heavy duty bus, truck, and train applications, and are now under development for marine applications.

Benefits

This project is expected to augment the efforts of the nation in achieving the Prime Minister's ambitious target of becoming carbon neutral by 2070 and also in complying with the standards set by International Maritime Organization (IMO) that envisages a reduction in carbon intensity of international shipping by at least 40% by 2030 and progressively to 70% by 2050.

5G Services

In News

Union Minister of Communications, Shri Ashwini Vaishnaw, recently said that the commercial rollout of 5G services could be expected from August-September 2022 onwards.

5 G technology

- 5G is the next generation of mobile broadband that will eventually replace, or at least augment 4G LTE connection.
- Operate in **the millimeter wave spectrum (30-300 GHz)** which have the advantage of sending large amounts of data at very high speeds.

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- Operates in **3 bands**, namely low, mid and high frequency spectrum.
- **Reduced latency** will support new applications that leverage the power of 5G, the Internet of Things (IoT), and artificial intelligence.
- Increased capacity on 5G networks can minimize the impact of load spikes, like those that take place during sporting events and news events.

NASA's new communications system LCRD

In News

NASA recently demonstrated its Laser Communications Relay Demonstration (LCRD). It was launched in December 2021.

LRCD

- It is the agency's first-ever laser communications system.
- The LCRD will help the agency test optical communication in space.
- LCRD will demonstrate all of the advantages of using laser systems and allow us to learn how to use them best operationally.
- LCRD has two optical terminals one to receive data from a user spacecraft, and the other to transmit data to ground stations.
- The modems will translate the digital data into laser signals.
- This will then be transmitted via encoded beams of light. These capabilities make LCRD NASA's first two-way, end-to-end optical relay.

Laser v/s Radio

- Laser communications and radio waves use different wavelengths of light.
- Laser uses infrared light and has a shorter wavelength than radio waves.
- This will help the transmission of more data in a short time.
- It would take roughly nine weeks to transmit a completed map of Mars back to Earth with current radio frequency systems.
- With lasers, we can accelerate that to about nine days.

Benefits

- Optical communications systems are smaller in size, weight, and require less power compared with radio instruments.
- A smaller size means more room for science instruments.
- Less weight means a less expensive launch. Less power means less drain on the spacecraft's batteries.
- With optical communications supplementing radio, missions will have unparalleled communications capabilities.

Symposium on Smart City Revolution

In News

- A symposium on 'Urban Development in NE States: Smart City Revolution', organised under the ongoing Azadi Ka Amrit Mahotsav: North East Festival in the Sikkim capital.
- Online Building Permission System (OBPS) was also launched and Sikkim became the first state in the region.

Initiatives taken in North East

- Prime Minister's Development Initiatives for North-East (**PM-DevINE**)- announced by the Finance Minister in the Union Budget with an initial allocation of Rs 1500 crores will fund infrastructure, guided by the PM Gati Shakti Mission, and social development projects based on the felt need of the North-East.
- The **South Asian Sub-Regional Economic Cooperation (SASEC)** road connectivity programme will also help in making the region more connected and accessible to the rest of the country.
- Smart Cities Mission 523 projects worth Rs 13563 crores are in various stages of implementation in the ten cities of the NE Region.

National Open Access Registry (NOAR)

In News

National Open Access Registry (NOAR) has successfully gone live from 1st May 2022.

About NDAR

- NOAR has been designed as an integrated single window electronic platform accessible to all stakeholders including open access participants, traders, power exchanges, national/regional/state load despatch centres for electronic processing of short-term open access application thereby automating the administration of the short-term open access in inter-state transmission system.
- The NOAR platform shall act as a repository of information related to short term open access in inter-state transmission including standing clearance issued by RLDCs or SLDCs and short-term open access granted to the open access customers etc. and make such information available to the stakeholders online.
- National Load Despatch Centre (NLDC) operated by Power System Operation Corporation Limited (POSOCO) has been designated as the nodal agency for implementation and operation of NOAR. NOAR would be the key to facilitate faster electricity markets and enable integration of Renewable Energy (RE) resources into the grid.
- NOAR will enable seamless market participation by the open access consumer with easier and faster access to the short-term electricity market, comprising of about 10% of all India demand.

NATGRID

In News

Union Minister for Home and Cooperation, Shri Amit Shah inaugurated the National Intelligence Grid (NATGRID) Bengaluru premises.

About NATGRID

- NATGRID is conceptualised as a seamless and secure database for information on terrorists, economic crimes and similar incidents to help bolster India's capabilities.
- The NATGRID has been envisaged as a robust mechanism to track suspects and prevent terrorist attacks with real-time data and access to classified information like immigration, banking, individual taxpayers, air and train travels.

Working

- In the first phase, 10 user agencies and 21 service providers will be connected with the NATGRID while in later phases about 950 additional organisations will be brought on board, as per a PTI report.
- In the following years, more than 1,000 organisations will be further integrated into the NATGRID.

- These data sources include records related to immigration entry and exit, banking and financial transactions and telecommunications.
- C-DAC Pune has been roped in as Technology Partner and IIT, Bhilai as Plan Management Consultant for the development of NATGRID solution.

Artificial Intelligence" ('AI') initiative on healthcare and sustainability

In News

Indo-German Science and Technology Centre (IGSTC) is all set to propose a joint "Artificial Intelligence" ('AI') initiative on healthcare and sustainability.

About the initiative

- Government of India in recent time has initiated several new mission mode programs like Cyber Physical System, Quantum Technologies, Future Manufacturing, Green Hydrogen Fuel, Deep Ocean Mining etc. Govt. of India and DFG can explore working together in solving such issues of societal challenges.
- India has taken several steps to harness the power of Quantum computing for societal benefit.
- The Govt. of India has launched the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS) to make India a leading player in the Cyber-Physical System.

CAPF Punarvaas

In News

With an aim to facilitate retired Central Armed Police Force (CAPF) and Assam Rifle personnel to secure employment with private security agencies, the Ministry of Home Affairs under the directions of the Union Home Minister, Shri Amit Shah has launched 'CAPF Punarvaas', through the Welfare & Rehabilitation Board (WARB).

About the portal

- The portal will help retired personnel seeking re-employment to find an appropriate match by uploading their personal details on the WARB website along with their area of expertise and preferred employment location.
- The Ministry of Home Affairs also runs a portal under Private Security Agencies Regulation Act (PSARA) for the registration of Private Security Agencies (PSAs).
- This new initiative of Ministry of Home Affairs provides access to the data base under 'CAPFs Punarvaas' to PSAs digitally.

Benefits

- With the increase in the number of business establishments requiring security services, there has been a substantial growth of PSAs thereby increasing the requirement of security personnel.
- On the one hand, PSAs will benefit by accessing the database of retired and willing personnel of CAPFs who are well trained in providing security and other security related services; on the other hand this initiative will provide an electronic platform for retired CAPFs personnel to secure employment in PSAs.

NCRTC to receive India's first Regional Rapid Transit System train set at Salvi

In News

At **Alstom's Savli project** in Gujarat, the **National Capital Region Transport Corporation** (NCRTC) will receive India's first semi-high-speed train set for **Regional Rapid Transit System** (RRTS). **Manoj Joshi**, Secretary, Ministry of Housing and Urban Affairs, will be present at the occasion.

Features

- Trainsets, with their sleek and modern design, will be lightweight equipped with a regenerative braking system and compatible with Automatic Train Protection (ATP), Automatic Train Control (ATC) and Automatic Train Operations (ATO).
- The regenerative braking system is an important feature of these trains, which generates electricity when the brakes are applied and the power goes back to the electric grid through the overhead traction of the train system.
- The **RRTS** train sets are produced under the Make in India initiative and can reach a top speed of 180 kilometres per hour. The train will be transported to Duhai Depot in **Uttar Pradesh**, where it will be repaired and operated.
- Cushioned seating, laptop-mobile charging, luggage racks, and a dynamic route map are among the modern commuter-centric features of the completely air-conditioned train.
- The **NCRTC** is in charge of putting India's first **RRTS** corridor between Delhi and Meerut into action. The 82-kilometre-long route is now under construction.
- The 17-kilometre priority segment between Sahibabad and Duhai is expected to be operational by 2023, with the entire corridor completed by 2025.

Intersolar Europe 2022

In News

- Union Minister of State for Ministry of New and Renewable Energy Shri Bhagwant Khuba will attend Intersolar Europe 2022 to be held from 11th May to 13th May 2022 in Germany.
- The event is being organized by the Indo-German Energy Forum (IGEF).

About Intersolar

- Intersolar is the world's leading exhibition series for the solar industry and its partners.
- It unites people and companies from around the world with the aim of increasing the share of solar power in our energy supply.
- With more than 30 years of experience, Intersolar has the unique ability to bring together members of the solar industry from across the world's most influential markets.
- Intersolar exhibitions and conferences are held in Munich, São Paulo, Long Beach, Gandhinagar, Dubai and Mexico City.

National Technology Day 2022

In News

• National Technology Day is celebrated on 11 May in India, to celebrate the achievements made by the scientists, engineers, teachers and researchers across the nation. Indeed, this day reminds the people about the scientific advancements made by the people of our nation.

• Theme- Integrated Approach in Science and Technology for a Sustainable Future

Background

- On that day in 1999, for the first time, National Technology Day was officially celebrated in India, aiming to commemorate the scientific and technological accomplishments of the Indians.
- Atal Bihari Vajpayee, then Prime Minister declared on 11 May 1999 to celebrate this day as National Technology Day, for the years coming ahead.
- The day was first officially celebrated on May 11, 1999, to commemorate the scientific and technological accomplishments.
- The day pays respect to scientists, researchers, and engineers for their technological contributions to the nation.

Nuclear Test

- The Pokhran nuclear tests were a series of five nuclear bomb test explosions that were conducted at the Indian Army's Pokhran test range in Rajasthan's Thar.
- India had become the sixth country to join the nuclear club after the tests.

PARAM PORUL Supercomputer

In News

PARAM PORUL, a state-of the art Supercomputer at NIT Tiruchirappalli dedicated to the nation under **National Supercomputing Mission** (NSM) - a joint initiative of Ministry of Electronics and Information Technology (MeitY) and Department of Science and Technology (DST), was inaugurated recently.

Features

- PARAM PORUL supercomputing facility is established under Phase 2 of the NSM, where in majority of the components used to build this system have been manufactured and assembled within the country, along with an indigenous software stack developed by C-DAC, in line with the Make in India initiative.
- PARAM PORUL system is based on Direct Contact Liquid Cooling technology to obtain a high power usage effectiveness and thereby reducing the operational cost.
- Multiple applications from various scientific domains such as Weather and Climate, Bioinformatics, Computational Chemistry, Molecular Dynamics, Material Sciences, Computational Fluid Dynamics etc. has been installed on the system for the benefit of researchers. This high end computing system will be a great value addition for the research community.

Benefits

- The facility installed under NSM will strengthen this research.
- The new high-performance computational facility would aid researchers to solve large-scale problems of different fields of Science and Engineering.

NSM

- NSM has sponsored a number of application research projects using this Supercomputing facility involving researchers for and other Indian institutes and industries.
- Overall, this Supercomputing facility will provide a major boost to the research and development initiatives in Indian academia and industries to reach a position of global esteem.
- Under NSM, till date 15 supercomputers have been installed across the nation with compute capacity of 24 petaflops.

• All these supercomputers have been manufactured in India and operating with indigenously developed software stack.

India's cybersecure future

In News

A surveillance system installed at the National Highways Authority of India headquarters at Dwarka keeps track of the health of all the computers in its network, flagging attempts to hack into the system, malware in systems within the network, or malfunctioning programme being used.

C3iVazra

- Installed in 2021, the Security Operation Centre (SoC) titled **C3iVazra** has protected the computers that monitor the highways across the country and has alerted about potential dangers.
- **C3iVazra** provides supervisory monitoring by gathering the real-time event, and log feeds from the endpoints, packet data from the network and the internet, and processes these feeds to generate threat intelligence and ensure network security of the organization.
- Major benefits of this solution are increased efficiency in incident response, reduced impact of security breaches, better reporting and notification, log analysis, and retention.
- **The SoC**, the first one in the country based fully on open-source components and integration, was developed by the Cyberphysical systems Technology Innovation Hub (TIH) or C3iHub set up at IIT Kanpur -- an R&D centre on cybersecurity in the country.

About SSI

- A self-sovereign identity (SSI) system based on blockchain technology has also been developed by C3iHub. Self-Sovereign Identity (SSI) is a technology that allows the users to have complete control over where and how the data personal to the user is used.
- SSI uses a combination of technologies to give this control to the user through blockchain, zero-knowledge proofs, and digital signatures.
- It is useful for securely storing a wide variety of personal information, including degrees, certificates, and identity proofs.
- An SSI-based system for awarding degrees was developed at C3iHub and is being deployed by an IIT incubated Startup CRUBN through the hub.

National Council for Teacher Education

In News

- National Council for Teacher Education (NCTE) under Ministry of Education has launched an online portal to streamline the entire process of recognition of teacher education programs of HEIs/TEIs right from the time of inviting application for courses till the stage of issue of recognition orders including the inspection of institutions.
- The applications for the recently launched 4 Year ITEP applications will be processed on this portal.

About the portal

- This portal will bring a paradigm shift in the functioning of NCTE. It aims to provide an automated robust framework thereby enhancing accountability, transparency and ease of doing business.
- Online applications for ITEP will be processed by NCTE through 'Admin Login' of the website (https://ncte.gov.in/Website/admin_Panel.aspx).

• All communication from HEIs/TEIs regarding deficiencies/SCN will correspondingly have to be sent on the ITEP portal.

National AI Portal

In News

The second-year anniversary of 'National AI Portal (https://indiaai.gov.in)' is celebrated on May 30, 2022.

About the portal

- The National AI Portal is a joint initiative by the Ministry of Electronics and IT (MeitY), National e-Governance Division (NeGD) and NASSCOM.
- The portal focuses on creating and nurturing a unified AI ecosystem in the country to drive excellence and leadership in knowledge creation to develop an AI-ready robust workforce for the future and use AI to foster economic growth.
- The portal was launched by the Hon'ble Minister for Electronics and IT and Communications on May 30, 2020.
- Since its inauguration, the portal has been visited by more than 4.5 lakh users with 1.2 million page views.
- The portal currently has an impressive repository of 1151 articles on AI, 701 news stories, 98 reports, 95 case studies and 213 videos.
- It also has one of the best databases on India's AI ecosystem featuring details of 121 government initiatives and 281 startups.
- The portal has played a crucial role in evangelising and nurturing the AI ecosystem through numerous impactful initiatives such as the lab2market, Women in AI Roundtable, AI patent report, Responsible AI handbook for startups, Responsible AI Startups survey, podcasts, and the AI Standards.

INDIAai

- INDIAai released a book on the basics of AI titled 'AI for Everyone'.
- The booklet aims to provide free and open AI literacy to the community of young minds and new learners to enable them in their aspirations beyond the digital divide.

Benefits of AI

- Al can help professionals in a great way to save time from repetitive work to focus more on human centric work.
- She also talked about FutureSkills Prime and use of coding to learn new skills related to AI.

PARAM ANANTA

In News

PARAM ANANTA, a state-of the art Supercomputer at IIT Gandhinagar dedicated to the nation under National Supercomputing Mission (NSM) - a joint initiative of Ministry of Electronics and Information Technology (MeitY) and Department of Science and Technology (DST), was commissioned recently.

PARAM ANANTA

• PARAM ANANTA supercomputing facility is established under Phase 2 of the NSM, where in majority of the components used to build this system have been manufactured and assembled within the country, along with an indigenous software stack developed by C-DAC, in line with the Make in India initiative.

- The system is equipped with a mix of CPU nodes, GPU nodes, High Memory nodes, High throughput storage and high performance Infiniband interconnect to cater the computing needs of various scientific and engineering applications.
- The system is equipped with a mix of CPU nodes, GPU nodes, High Memory nodes, High throughput storage and high performance Infiniband interconnect to cater the computing needs of various scientific and engineering applications.
- The system is based on Direct Contact Liquid Cooling technology to obtain a high power usage effectiveness and thereby reducing the operational cost.
- Multiple applications from various scientific domains such as Weather and Climate, Bioinformatics, Computational Chemistry, Molecular Dynamics, Material Sciences, Computational Fluid Dynamics etc. have been installed on the system for the benefit of researchers.
- This high end computing system will be a great value addition for the research community.

About NSM

- NSM is a proposed plan by Gol to create a cluster of seventy supercomputers connecting various academic and research institutions across India.
- In April 2015 the government approved the NSM with a total outlay of Rs.4500 crore for a period of 7 years.
- The mission was set up to provide the country with supercomputing infrastructure to meet the increased computational demands of academia, researchers, MSMEs, and startups by creating the capability design, manufacturing, of supercomputers indigenously in India.
- Under NSM, till date 15 supercomputers have been installed across the nation with aggregate compute capacity of 24 petaflops.
- All these supercomputers have been manufactured in India and operating on indigenously developed software stack.

India to contest for re-election to ITU

In News

India is contesting, for re-election, to the ITU Council, for the term 2023-2026.

About ITU

- India has been a member of ITU since 1869 and has been continuously participating, actively in the works, and activities of the Union, and has been contributing, to the fullest possible extent, in the growth and development, of Telecom/ICTs, for the benefit of global community.
- It is a specialized agency of the United Nations responsible for many matters related to information and communication technologies.
- It was established on 17 May 1865 as the International Telegraph Union, making it the oldest UN agency.
- AIM- At helping connect telegraphic networks between countries, with its mandate consistently broadening with the advent of new communications technologies; it adopted its current name in 1934 to reflect its expanded responsibilities over radio and the telephone.
- Based in Geneva, Switzerland, the ITU's global membership includes 193 countries and around 900 business, academic institutions, and international and regional organizations.

Way Finding Application

In News

The Union Cabinet chaired by the Prime Minister, Shri Narendra Modi, has approved the proposal for signing of an agreement between the Government of India and the United Nations on a **'Way Finding Application**' to be used in the Palais des Nations, United Nations Office at Geneva (UNOG).

Way Finding Application

- The project of development of 'Way Finding Application' has been conceptualized as donation from the Government of India to UN on the occasion of its 75th anniversary in 2020.
- The estimated financial implication for development deployment and maintenance of the App is \$ 2 Million.
- The project consists of development deployment and maintenance of a software-based 'Way Finding Application' to facilitate navigation in the Palais des Nations premises of UNLG.
- The application will enable users to find their way from point to point within the 21 floors spread across five buildings of UNOG.
- The App will work on Android and iOS devices with an internet connection. The development of the App has been entrusted to Centre for Development of Telematics (C-DoT), an autonomous telecom Research & Development centre of Department of Telecommunications (DoT), Government of India.

Significance

- The project will be significant contribution from the Government of India to UN.
- The project will not only highlight the technical capabilities of India but also enhance the prestige of country at the UN level platform.
- The App will make India's presence felt in the UN and showcase its soft power in the form of strong software technology expertise a 'Made in India' App in the mobiles of who come from across the globe.

About UN

- The United Nations (UN) is an international organization founded in 1945. It is currently made up of 193 Member States. India is a founding member of the United Nations.
- The United Nations Office at Geneva (UNOG), consisting of five buildings and 21 floors, is housed at the historic Palais des Nations.
- Large number of delegates, members of civil society and general public visit UNOG to participate in various meetings and conventions.

Need for Application

Keeping in view the complexity of buildings and huge participation, there was a requirement of a navigational application which can help the visitors and other delegates in finding their way inside the premises while adhering to all security perspectives.

Project Information & Management Module of Single Window Clearance System (SWCS)

In News

The Ministry of Coal has launched Project Information & Management Module of Single Window Clearance System (SWCS) recently.

SMC2

- It is an innovative endeavour of the Ministry to create a platform to obtain various clearances for operationalization of coal mines in the country.
- The portal is proposed to map applications and their respective process flows for grant of all the statutory clearances required (covering Central Ministries as well as State Government departments/agencies) for starting of a Coal Mine.
- To facilitate ease of doing business, a unified platform of SWCS is designed which includes already operational module for approval of mining plan and mine closure plan in a time bound manner and integration with **Parivesh Portal**, digital acceptance of objection under Section 8 (1) of Coal Bearing Areas (Acquisition & Development) Act, 1957, Consent Management System of Telangana & West Bengal.
- This project Information & Management Module caters digital connect between the mine allocattee & Ministry and provides the digital resolution in respect of the respective block.
- **One of the major features** of the module is the management of Bank Guarantee, Upfront payment, major clearances, show cause notices and court cases.

Detection of earthquake early warnings

In News

Scientists have developed a novel experimental framework in fluid dynamics to describe deformation in disordered soft solids formed by mixing solid grains at significant proportions in a simple liquid which can help in developing early warning systems to minimize damage due to catastrophic events like landslides/earthquakes.

About the Experiment

- These systems are comprised of grains that are essentially similar to grains of rice.
- Rice grains can be packed better into a container by shaking the container.
- The forces coming from shaking make the grains gradually more compact until it reaches a critical degree of compaction.
- Interestingly, such critical compaction encodes the information about the interactions between the grains coming from inter-particle friction, the shape of the particles, sticky-ness, and so on.
- A group of researchers from Raman Research Institute, an autonomous institute of the Department of Science and Technology has proposed a novel experimental framework.

Bhavishya, a Portal for Pension Payment and Tracking System

In News

Union Minister of State (Independent Charge) Science & Technology informed that the Department of Pension & Pensioners' Welfare will soon launch Artificial Intelligence (AI) enabled Common single Pension Portal for the benefit of pensioners and elder citizens.

Features of the Portal

- Al supported portal will send automatic alerts to pensioners and superannuated elder citizens.
- This will help seamless processing, tracking and disbursal of pension.
- Portal will not only enable constant contact with pensioners and their associations across the country but will also regularly receive their inputs, suggestions as well as grievances for prompt response.

Bhavishya Portal

- 'Bhavishya' platform was made mandatory for all central government departments since 2017.
- Bhavishya 8.0 was released in August, 2020 with this new feature to PUSH the ePPO in Digilocker.
- Bhavishya' is the first application to use the Digilocker Id based PUSH Technology of Digilocker and 3892 e-PPOs have been pushed to Digilocker till date.
- Bhavishya provides an option to retiring employees for linking their Digilocker account with "Bhavishya" to get e-PPO.
- This initiative has created a permanent record safe from destruction of pensioners.
- The 'Bhavishya' system has now been made available on a Mobile App, thereby making it simple especially for those Para Military Forces who are out in the fields to keep track of their pension cases.

Newly developed ultrathin heteroprotein film

In News

Scientists have developed ultra-thin heteroprotein films with excellent thermal, mechanical and pH stability which can pave the way for expanding applications of thin films in biomedical and food packaging industries.

Significance

- These films are much thinner as compared to the other protein or plastic films.
- They are soft and thin and have the advantage of being more flexible than the other films.
- A research group from the physical sciences division of Institute of Advanced Study in Science and Technology (IASST), Guwahati, has successfully developed ultrathin monolayer protein films consisting of two globular proteins.
- They used the technique called using Langmuir-Blodgett (LB) technique which gives the films thickness in the order of nanometer.
- Films of such protein complex of BSA and Lys can be useful for fabricating highly stable biodegradable thin films of different protein complexes for expanding its applications in the area of thin-film technology.

'Non-electric cooling cabinet made of clay'

In News

Bureau of Indian Standards (BIS), the National Standards Body of India, has developed an Indian Standard, IS 17693: 2022 for 'non-electric cooling cabinet made of clay'.

Mitticool refrigerator

- Named as 'Mitticool refrigerator', Shri Mansukh Bhai Prajapati from Gujarat is the innovator behind the refrigerator which projects an eco-friendly technology.
- BIS standard specifies the construction and performance requirements of a cooling cabinet made out of clay, which operates on the principle of evaporative cooling. These cabinets may be used to store perishable foodstuff without the need of electricity.
- This standard helps BIS in fulfilling 6 out of 17 United Nations Sustainable Development Goals (SDGs).
- It is a natural refrigerator made primarily from clay to store vegetables, fruits, milk, and also for cooling water.
- 'Mitticool Refrigerator' was exhibited at the 4th batch of Innovations Scholars In-residence Programme held at Rashtrapati Bhawan (2017) in partnership with the National Innovation Foundation (NIF).

Green Hydrogen and Green Ammonia

In News

Union Minister for Chemicals and Fertilizers and Health & Family Welfare, Dr Mansukh Mandaviya addressed a seminar being organized on the subject 'Production and use of Green Hydrogen and Green Ammonia in Process Industry' by Department of Chemical Engineering, IIT Delhi, Indian Institute of Chemical Engineers (Northern Regional Centre).

Green Hydrogen Mission

- On India's 75th Independence Day (15th August, 2021) the Prime Minister announced the National Hydrogen Mission.
- Under the Mission, India is targeting to produce three-fourths of its hydrogen from renewable resources by 2050.
- The Mission under the Ministry of Power, aims to support India in meeting its Sustainable climate goals.
- Hydrogen is seen as the potential fuel to replace fossil fuels in future.
- It will help India in increasing its renewable energy capacity.
- This will help the government in achieving the target of 450 GW Renewable Energy by 2030.

Hydrogen as a fuel

- Hydrogen is a clean fuel and an efficient energy carrier.
- Hydrogen is found in water, organic compounds and hydrocarbons such as petrol, natural gas, methanol and propane.
- Hydrogen is high in energy content as it contains 120.7 MJ/kg, which is the highest for any known fuel. However, its energy content compared to volume is rather low. This poses challenges with regard to its storage for civilian applications, when compared to storage of liquid fossil fuels.
- When burnt, hydrogen produces water as a by-product and is, therefore, environmentally benign.
- Although no CO2, etc. are produced if hydrogen is burnt in air, yet NOx will be formed at high temperatures.
- One of the advantages of hydrogen as a fuel is that it can be used directly in the existing internal combustion engines and turbines.

New genus of treeshrew

In News

Scientists have spotted fossils of a small mammal resembling squirrels called treeshrew belonging to a new genus and species from Ramnagar in Jammu and Kashmir.

Findings of the discovery

- This treeshrew currently represents the oldest record of fossil tupaiids in the Siwaliks, extending their time range by 2.5–4.0 Million Years in the region and can help provide a more precise age estimate for this Ramnagar locality lying in the Udhampur District (UT-Jammu & Kashmir).
- Treeshrews, in particular, are very rare elements of the fossil record, with only a few species known throughout the entire Cenozoic era.
- The identification of these time sensitive dental features and species in the current collection help to provide a more precise age estimate for this Ramnagar locality as between 12.7-11.6 Million Years.

"Grand Hackathon" on Agriculture domain

In News

A three-day "**Grand Hackathon**" organized by the Open Network for Digital Commerce (ONDC) in collaboration with NABARD, has been launched virtually by Union Minister Piyush Goyal.

About Hackathon

- The **"Grand Hackathon"**, is subdivided into two categories; Agri Grant Challenge and Agri Innovation Hackathon that will showcase the innovations to aid the adoption of eCommerce in the agricultural sector.
- The focus of this event is on the agricultural domain, solving for agri domain needs that will help tap its unexplored potential and benefit the farming community and Agri ecosystem and help state governments realise their goal of promoting their local agricultural products at a national level.
- It plans to bring various agricultural stakeholders, including individuals, organisations and promising startups, onto one accelerator activity.

ONDC

- ONDC is a Government of India initiative that aims to build an open network for buyers and sellers to democratise the current e-commerce ecosystem in the country.
- It is also very crucial in democratizing the agri-value chain and ensuring the digital transformation of agri sector, as was stated by Shri Goyal. With active support from NABARD, ONDC will be able to on-board the entire farm value chain, bring them on to e-commerce, particularly the FPOs, mandis, processors, exporters, MSMEs and the small retailers.

Greenko School of Sustainable Science & Technology at IIT Hyderabad

In News

Union Minister for Education and Skill Development Shri Dharmendra Pradhan inaugurated the state-of-the-art facilities, laid the foundation stone for BVRSCIENT & witnessed a landmark MoU for the first-of-its-kind Greenko School of Sustainable Science & Technology at IIT Hyderabad.

About GSSST

- Greenko, India's leading energy transition and industrial decarbonization solutions company, and IIT Hyderabad signed an MoU to launch India's first dedicated school for sustainable science and technology.
- The Greenko School of Sustainable Science and Technology (GSSST) aims to plug the rising research, education, and skills gaps caused by the imperatives of sustainable development. The school will be advancing knowledge in these key thrust areas:
- Climate Change Mitigation
- AI & Space Technology
- Energy Transition & Industrial Transformation
- Circular & Regenerative Economy
- ZeroC processes, fuels, materials, and products
- Industrial Ecology and Net Zero Clusters

Inauguration of Technology Innovation Park (TIP):

- The TIP building, with a total built-up area of 14313 sqm, consisting of 11 blocks with a G+5 structure, is ready to support the incubation activity at IITH.
- The motto of IIT Hyderabad is Inventing and Innovating in Technology for Humanity (IITH). The Incubation ecosystem of IITH aims at nurturing ideas and innovations into viable technological and business ventures.

Tihan

In News

Union Minister of State (Independent Charge) Science & Technology; Dr Jitendra Singh inaugurated first-of-its-kind, state-of-the-art "Autonomous Navigation" facility to develop unmanned ground and aerial vehicles in the IIT Hyderabad campus.

About TiHAN

- The "Technology Innovation Hub on Autonomous Navigation" is a multidisciplinary initiative, which will make India a global player in the futuristic and next generation "Smart Mobility" technology".
- The vision of **TiHAN-IITH**, is to become a global player for next generation smart mobility technologies and the Ministry of Science & Technology has come forward to support this initiative, which will be a trendsetter for others as well.
- TiHAN Testbed will provide a unique platform for high quality research between academia, industry and R&D labs both at the national and international level, thus making India a global leader in autonomous navigation technologies.
- TiHAN-IITH testbed on Autonomous Navigations (Aerial & Terrestrial) will allow us testing the next generation autonomous navigation technologies accurately and allow faster technology development and global market penetration.
- TiHAN is developing and deploying a real-time CPS system utilising autonomous UAVs and ground/surface vehicles for many application sectors of the national importance of this decade.
- TiHAN is recognized as a Scientific and Industrial Research Organization (SIRO) by the Department of Scientific and Industrial Research.

E-Cycle

In News

Scientists have used nano-materials to develop Na-ion-based batteries and supercapacitors, which can be rapidly charged and have integrated them in e-cycles.

Features

- The low-cost Na-ion-based technologies would be cheap and are expected to reduce the cost of the e-cycles significantly.
- Sodium-ion (Na-ion) batteries have triggered academic and commercial interest as a possible complementary technology to lithium-ion batteries because of the high natural abundance of sodium and the consequent low costs of Na-ion batteries.
- These sodium materials are cheaper than Li-based materials, high performing, and can be scaled up to industrial-level production.
- The Na-ion cell can also be totally discharged to zero volt, similar to a capacitor, making it a safer option in comparison to many other storage technologies.
- As disposal strategies of Na-ion-based batteries would be simpler, it can also help in addressing the climate mitigation issue.

India Supercomputing capabilities

In News

As per the global ranking service of super-computers (Top 500), India has only 3 top-ranked supercomputers among 500 and none in the top 100.

Major Highlights

- (Param Siddhi (5.27 PFlops), Param Ganga (1.66 PFlops) and Pratyush supercomputer (Indian Institute of Tropical Meteorology's)) India had 2 in the top 100 in 2020
- World: China and the US account for nearly two-thirds of the top 500 supercomputers in the world.
- Frontier Supercomputer: The world's fastest supercomputer, Frontier, located at the Oak Ridge National Laboratory, offers a peak performance of 1,685 PFlops.

Advantages

- High-speed computation: E.g., in May 2020, IBM's Summit supercomputer, helped researchers find drug compounds that could stop the covid-19 virus from infecting host cells in just 2-3 days.
- Other areas: chemistry formulations, protein folding, biomedicine, space (for satellite placements) and climate research.

Aditya-L1

In News

A workshop conducted by the Aditya-L1 Science Support Cell (AL1SSC) for students of different institutions and they were exposed to the basic processes happening on the Sun, Aditya-L1 mission, and observational data analysis.

Aditya - L1

- The Aditya-L1 mission is India's first dedicated spacecraft mission to study the Sun.
- It will enable a comprehensive understanding of the dynamical processes of the Sun and address some of the outstanding problems in solar physics and heliophysics.
- AL1SSC has been set up to act as a community service centre for the guest observers in preparing science observing proposals and analyzing science data.
- This support cell provides tools and documentations required to understand, download and analyse the data.

First ever 'Artificial Intelligence in Defence' exhibition & symposium

In News

Raksha Mantri Shri Rajnath Singh will inaugurate the first ever 'Artificial Intelligence in Defence' (AIDef) symposium and exhibition, organised by Department of Defence Production, Ministry of Defence, in New Delhi.

AlDef

- The event will feature an exhibition to showcase the cutting edge AI-enabled solutions developed by the Services, research organisations, Industry and start-ups & innovators and launch of AI products for the market.
- The event will also witness panel discussions on 'Deploying AI in Defence', 'GenNext AI solutions' and 'AI in Defence Industry Perspective', with active participation from the Services, academia, students, research organisations and Industry.

- A 'GenNext AI' Solutions Competition has been organised to get bright innovative ideas from students on futuristic AI solutions.
- Al task force on Defence was established in 2018 to provide a road map on promoting Al in defence.

India Stack Knowledge Exchange 2022

In News

As part of the ongoing Digital India Week 2022 celebrations, the 3-days long virtual event on India Stack Knowledge Exchange kick started recently.

About ISKE 2022

- India Stack, which is a unified software platform to bring India's 1.4 billion population into the Digital Age.
- This programme witnessed participation from across the world.
- The **objective** is to give an orientation to the basic building blocks of India Stack, which is driving Digital Transformation in India.
- Indiastack.global was launched by Hon'ble Prime Minister recently and is a single repository of all major projects on India Stack.
- The first session was on India Stack's prime `product, the Aadhaar.
- The second session on 'UPI: Leading Digital Payment Ecosystem in India'.

KVIC launches Knowledge Portal for Khadi

In News

The Knowledge Portal for Khadi is a platform developed by the Center of Excellence for Khadi to provide design directions to the Khadi institutions.

Features of the portal

- The Center of Excellence for Khadi has been set up by KVIC, Ministry of MSME at NIFT, to support Khadi Institutions.
- Knowledge Port for Khadi attempts to disseminate design knowledge to a broader section of Khadi Institutions.
- The portal intends to create design intervention by simplifying the trends especially suitable for Khadi.
- Four stories/design directions have been conceptualised and presented in Volume I.
- Each story has a key theme, colour palette, and directions for woven designs, prints, textures, and surfaces.
- Every story has been separated into two segments Home and Apparel.
- Besides the themes, the portal also provides size charts, silhouette boards, buttons and closures, seams and finishes for both home and apparel.
- The portal will be hosted on the website of the Center of Excellence for Khadi and can be accessed on www.coek.in

New memory device with excellent switching characteristics

In News

Scientists have developed a memory device with excellent switching characteristics and low-power requirements for data storage applications.

About the discovery

- Resistive memory devices with insulating film sandwiched between electrodes can address the needs of high-performance, and high-density memories with low power requirements for data storage.
- They are devices with resistive switching characteristics which refers to the physical phenomena in which a dielectric (electrical insulator that can be polarised by an applied electric current) suddenly changes its (two terminal) resistance under the action of a strong current.
- An autonomous institution of Department of Science and Technology, Govt. of India (DST), have developed a low-power memory device with excellent switching characteristics made from the chemical hafnium oxide, a replacement for silicon oxide, for data storage applications.
- They have used hafnium oxide (HfO₂), an insulator which can be polarised on application of electric current as an insulating layer.
- They prepared with by a method called sputtering deposition method.
- It is a physical vapour deposition technique in which energetic ions are used to knock off the atoms or molecules from the desired 'target' material and deposit them onto a substrate.

LabVIEW Platform through I-STEM for academic researchers

In News

For the first time in the country, academic users in India will have free access to the **Laboratory Virtual Instrument Engineering Workbench (**LabVIEW) software suite - a system-design platform and development environment for a visual programming language.

Features of LabVIEW

- The Indian Science Technology and Engineering facilities Map (I-STEM), the national web portal for sharing research equipment/facilities, and National Instruments Inc., headquartered in Austin, TX, USA, entered into a collaborative arrangement to enable this free access to the platform.
- LabVIEW uses a graphic interface that enables different elements to be joined together to provide the required flow and runs on Windows, OS X (Apple), and Linux Operating systems, making it suitable for most computing systems.
- The software suite is hosted on the cloud server established by the I-STEM to provide user-friendly access from anywhere in India.
- The arrangement is expected to assist many students and researchers in the country, especially those in the more remote and less-endowed institutions, thereby enhancing learning outcomes and promoting R&D efforts across India.

I-STEM

- I-STEM (www.istem.gov.in) is an initiative by the Scientists of the Indian Institute of Science Bangalore supported by the Office of the Principal Scientific Adviser to the Govt. of India under the PM-STIAC mission.
- The portal hosts the database of facilities across India so that a researcher desirous of using any of them can search for the same and make a booking online for using it.
- The portal also features a Digital Catalogue of indigenously developed technologies and products.
- I-STEM also hosts the platform for the various City Knowledge and Innovation Clusters, to enhance R&D collaboration and skill development across the country.

e-Panchayat Mission Mode Project (MMP)

In News

Under Digital India Programme, Ministry is implementing e-Panchayat Mission Mode Project (MMP) with the aim to transform the functioning of Panchayati Raj Institutions (PRIs) by making them more transparent, accountable, and effective.

e- Gram Swaraj

- A work-based comprehensive application for PRIs under the e-Panchayat MMP launched on 24th April 2020.
- This application encompasses all aspects of Panchayat functioning viz. planning, budgeting, accounting, monitoring, asset management etc, on a single digital platform including online payments.
- The Ministry constantly engages with the States through virtual and physical training and enablement for States to adopt the eGramSwaraj application.
- So far, 2.48 lakh GPs have prepared and uploaded their Gram Panchayat Development Plans (GPDPs) for 2022-23.

Bharat Net Project

- BharatNet project is being implemented by Department of Telecommunications in a phased manner to connect all the Gram Panchayats by broadband in the country.
- So far, 1,78,271 GPs have been made Service Ready under the BharatNet project in the country.
- The targeted date for the completion of the BharatNet project to provide broadband connectivity to all Gram Panchayats and equivalent in the country is August 2023.

Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA)

In News

The Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) was approved by Union Cabinet in February 2017 to usher in digital literacy in rural India with a target to cover 6 crore rural households (1 person per household) across the country.

PMDISHA

- The scheme is being implemented across the rural India including the state of Madhya Pradesh.
- Against the indicative target of 37.84 lakh, so far, 45.42 lakh candidates have been trained, out of which, 33.51 lakh candidates have been duly certified in Madhya Pradesh under the scheme.
- Government has carried out, three impact assessment studies for PMGDISHA scheme.
- The last impact assessment study of the scheme was carried out by Indian Institute of Public Administration (IIPA) in FY 2020-21.
- IIPA, after the comprehensive and methodological evaluation of scheme, concluded in the report that PMGDISHA as a digital literacy programme plays an indispensable part in not only bridging the digital gap in the country but also transforming it into a knowledge economy and society.

Indigenous Low Earth orbit Technology

In News

Union Minister of State (Independent Charge) Science & Technology; Dr Jitendra Singh said, ISRO is in the process of developing indigenous capabilities towards space tourism through the demonstration of human space flight capability to **Low Earth Orbit** (LEO).

About LEO

- A low Earth orbit (LEO) is, as the name suggests, an orbit that is relatively close to Earth's surface.
- It is normally at an altitude of less than 1000 km but could be as low as 160 km above Earth which is low compared to other orbits, but still very far above Earth's surface.
- By comparison, most commercial aeroplanes do not fly at altitudes much greater than approximately 14 km, so even the lowest LEO is more than ten times higher than that.
- It is the orbit most commonly used for satellite imaging, as being near the surface allows it to take images of higher resolution.
- It is also the orbit used for the International Space Station (ISS), as it is easier for astronauts to travel to and from it at a shorter distance.
- Satellites in this orbit travel at a speed of around 7.8 km per second; at this speed, a satellite takes approximately 90 minutes to circle Earth, meaning the ISS travels around Earth about 16 times a day.

Science of Genetics

In News

200 years of the father of genetics, Gregor Mendel.

Genetics

- Genetics is the study of genes, genetic variation, and heredity in organisms.
- It was first experimentally established by Gregor Mendel (a monk) (1822 to 1884)

Contributions

- By experimenting with pea plant breeding, Mendel developed three principles of inheritance that described the transmission of genetic traits, before anyone knew genes existed.
- To this day, scientists use Mendel's principles to explain the most basic phenomena of inheritance.
- **Foundation of biology**: Mendel's theory, together with the evolutionary theory propounded by Charles Darwin, laid the foundations of biology.
- Cure for many human diseases: Assisted clinicians in human disease research
- For example, within just a couple of years of the rediscovery of Mendel's work, Archibald Garrod applied Mendel's principles to his study of alkaptonuria (discolouration of the skin)
- Science of genomics and gene editing has its root in the work of Mendel.

VISWAS project

In News

The Union Home and Cooperation Minister, Shri Amit Shah, inaugurated the State Level Command and Control Center of Gujarat Police 'Trinetra' and other modern technical services under the VISWAS project in Gandhinagar.

About Project

- This project will protect Gujarat by converting Gujarat government's plan to make the Suraksha Chakra into a Sudarshan Chakra.
- Gujarat was at the first State where e-Cop was started.
- Computerization of all police stations in the State, recruitment of constables, training systems and administration of Trinetra has been done with E-Cop software.
- Along with this, the inclusion of eFIR aForensic Science Laboratory was also included in the e-cop.

GigaMesh Solution for delivery of 4G/5G Telecom and Internet services

In News

Technology Development Board, a statutory body of Department of Science & Technology, Govt. of India supports M/s Astrome Technologies Private Limited, Bengaluru for Productization and Commercialization of '**GigaMesh Solution for delivery of 4G/5G Telecom and Internet services for Defence and Rural Sectors'**.

About the Technology

- The idea behind development of GigaMesh is that, fibre-like capacity is needed at every telecom site but deploying the same at each site is not feasible, due to cost and access related constraints. As 5G deployment happens, the number of cell sites will increase and each cell site will require multi-Gbps throughputs.
- Therefore, telecom deployment in suburban and rural areas will require wireless products that can deliver both capacity and range.
- To cater this, Astrome has come up with **GigaMesh** i.e. 'First E-band radio that features Multiple-Point-to-Point (Multi-P2P) communication offering lower CapEx cost & OpEx cost.
- The device can provide up to 40 links with 2+ Gbps capacity each, communicating up to a range of 10 kilometers.
- This flexibility in range makes it suitable for both decongesting the dense urban networks as well as extending rural coverage, the device is also capable of making the existing infrastructure 5G ready.

e-GramSwaraj Portal

In News

The Ministry launched eGramSwaraj, a work-based comprehensive application for Panchayati Raj Institutions (PRIs) under the e-Panchayat MMP on 24th April 2020.

About Portal

- This application encompasses all aspects of Panchayat functioning viz. planning, budgeting, accounting, monitoring, asset management etc. on a single digital platform including online payments.
- So far, 2.48 lakh GPs have prepared and uploaded their Gram Panchayat Development Plans (GPDPs) for 2022-23.
- In the State of Meghalaya, the Traditional Local Bodies have not uploaded their Gram Panchayat Development Plans on the **eGramSwaraj portal.**
- The Ministry constantly engages with the States through virtual and physical training and enablement for States to adopt the eGramSwaraj application.
- Review meetings, workshops, hand-holding sessions, video conferences and visits by senior officials to States is undertaken regularly to review progress.

e-Panchayat Mission Mode Project (MMP)

- Aim- To transform the functioning of Panchayati Raj Institutions (PRIs) by making them more transparent, accountable, and effective.
- Building on the achievements in the past, Ministry has also integrated e-Gram SWARAJ with Public Financial Management System for Gram Panchayats to make real time payments to vendors/service providers.
- Further, Panchayats have adopted the mechanism to make payments to vendors through Public Financial Management System.

- For ensuring timely audit of Panchayat accounts, MoPR has devised an online application– Audit Online (https://auditonline.gov.in).
- This application not only facilitates auditing of Panchayat accounts but also provides for maintaining audit records.

'Black Widow'

In News

Scientists have measured the mass of a neutron star named PSR J0952-0607, and found that it's the most massive neutron star discovered yet, clocking in at a whopping 2.35 times the mass of the Sun.

Neutron Star

- A neutron star is like one giant nucleus, but when you have one-and-a-half solar masses of this stuff, which is about 500,000 Earth masses of nuclei all clinging together, it's not at all clear how they will behave.
- Neutron stars are the collapsed cores of massive stars that were between around 8 and 30 times the mass of the Sun, before they went supernova and blew most of their mass off into space.
- These cores, tending to be around 1.5 times the mass of the Sun, are among the densest objects in the Universe; the only thing denser is a black hole.

PSR J0952-0607

- PSR J0952-0607 was already one of the most interesting neutron stars in the Milky Way.
- It's what is known as a pulsar a neutron star that is spinning very fast, with jets of radiation emitting from the poles.
- As the star spins, these poles sweep past the observer (us) in the manner of a cosmic lighthouse so that the star appears to pulse.
- These stars can be insanely fast, their rotation rate on millisecond scales. PSR J0952-0607 is the second-fastest pulsar in the Milky Way, rotating a mind-blowing 707 times per second.
- It's also what is known as a "black widow" pulsar.
- The star is in a close orbit with a binary companion so close that its immense gravitational field pulls material from the companion star.
- This material forms an accretion disk that whirls around and feeds into the neutron star, a bit like water swirling around a drain. Angular momentum from the accretion disk is transferred to the star, causing its spin rate to increase.

E-RaktKosh web portal

In News

It is primarily the responsibility of the State/UT Government to take concrete steps to prevent illegal activities taking place in blood banks and during blood transfusion.

About the portal

- The **e-RaktKosh** web portal of Government of India, provides the interface for Blood Banks data management and integration.
- For this, all blood banks have been advised to register on e-RaktKosh web-portal.
- Government has made registration of blood banks mandatory as per the provisions of Drugs and Cosmetic Act and Rules thereunder.

- Further, Government has notified Drugs and Cosmetics (Second Amendment) Rules, 2020 which pertain to functioning of Blood Banks/centres, Blood processing and related matters.
- Government of India through Blood Transfusion Services also supports 1131 Blood Banks in the public and charitable sector in respect of manpower, procurement of Blood Bags and testing kits, conducting Voluntary Blood Donation (VBD) camps and Information Education Communication (IEC) activities etc.

Sowing the 'AI' seed for intelligent farming

In News

John McCarthy, the American computer scientist, first introduced the world to the term "artificial intelligence" at the 1955 Dartmouth Conference.

Al and agriculture

- According to NITI Aayog, AI has the potential to add \$1 trillion to India's economy by 2035. And, as per some experts and academicians, a significant amount of this would be in the agriculture sector.
- Efficient and cost-effective resource and yield management in the agricultural sector.
- Enable Smart Agriculture: It refers to the usage of technologies like the Internet of Things, sensors, location systems, robots and artificial intelligence on your farm.
- AI, cloud computing, satellite imagery, and advanced analytics, in combination, can create an ecosystem for smart agriculture.
- Prediction analysis: Will ensure the highest possible yields based on the seasonal forecast models.
- Address supply-demand mismatch in real-time. For example, a supply-demand engine or predictor that can map supply and demand can reduce this issue significantly.
- Precision farming by determining whether pesticides and weedicides should be used by detecting and targeting weeds in the identified buffer zone.
- This can lead to higher yields and reduced use of pesticides and weedicides.

Measures taken

- ICAR initiatives for cyber agro-physical systems om make Indian farming a viable, self-sustaining, and internationally competitive enterprise.
- NITI Aayog identifies agriculture as one of the focus areas as part of its national strategy for AI.
- Karnatakahas partnered with a leading MNC for agricultural produce, price-related information, and intelligence using predictive modelling
- Uttar Pradesh is collaborating with the Bill and Melinda Gates Foundation (BMGF) and the Tata Trust to set up the Indian Agritech incubation network at IIT-Kanpur
- Maharashtra has launched the Maha AgriTech projectthat is aimed at utilizing and promoting the application of satellites and drones to solve various agrarian problems.

NAVIC System

In News

Government says, India's satellite-based navigation system, NavIC, is as good as GPS of the United States in terms of position accuracy and availability in its service region.

NAVIC

- Navigation in Indian Constellation (NavIC) is an Indian Regional Navigation Satellite System (IRNSS), developed by the Indian Space Research Organization (ISRO).
- IRNSS consists of eight satellites, three satellites in geostationary orbit and five satellites in geosynchronous orbit.
- The main objective is to provide reliable position, navigation and timing services over India and its neighbourhood.
- It works just like the established and popular U.S. Global Positioning System (GPS) but within a 1,500-km radius over the sub-continent.
- It has been certified by the 3rd Generation Partnership Project (3GPP), a global body for coordinating mobile telephony standards.

Benefits

- NavIC can help in navigation on land, air, sea and also in disaster management.
- NavIC satellites are placed at a higher orbit than the GPS of United States. NavIC satellites are placed in geostationary orbit (GEO) & geosynchronous orbit (GSO) with an altitude of about 36,000 km; GPS satellites are placed in medium earth orbit (MEO) with an altitude of about 20,000 km.
- NavIC uses dual frequency bands, which improves accuracy of dual frequency receivers by enabling them to correct atmospheric errors through simultaneous use of two frequencies.
- It also helps in better reliability and availability because the signal from either frequency can serve the positioning requirement equally well.
- The coverage area was designed to cover Indian Territory and surrounding 1500 km of Indian borders.

North Eastern Space Applications Centre (NESAC)

In News

Union Minister of State (Independent Charge) Science & Technology; Dr Jitendra Singh said, North Eastern Space Applications Centre (NESAC), Shillong will execute 110 projects in Eight North Eastern States by 2024.

About NESAC

- Established in 2000, jointly with North Eastern Council (NEC), NESAC is as an autonomous institution under Dept. of Space (DOS) to provide space technology inputs and services for the development of the North Eastern Region.
- NESAC is engaged in executing remote sensing application projects for natural resources management & infrastructure development, satellite communication-based applications in education; health & disaster management support, and training & capacity building in space technology & applications.

NESAC has developed and achieved following major milestones for the North Eastern Region including:

- Implementation of North Eastern Spatial Data Repository (NeSDR)
- Identification of potential areas for development of sericulture & horticulture,
- Remote Sensing based forest working plans & river atlas,
- Geospatial system for monitoring MoDONER sponsored projects & survey of Record of Forest Rights (RoFR),
- Flood Early Warning System (FLEWS) for Assam, and
- Training & capacity building, including for professionals from BIMSTEC region

Universal Service Obligation Fund (USOF) Revamps Website

In News

- Universal Service Obligation Fund (USOF) has unveiled revamped website recently.
- The new website is designed as per the Guidelines for Indian Government Websites (GIGW) issued by the Department of Administrative Reforms and Public Grievances, Government of India.

Features of new Website

- The new website of USOF has been given a contemporary look using state-of-the-art technical design with a dynamic homepage.
- It is a one-stop interactive platform with an intelligent dashboard that reflects real-time updates of USOF-funded schemes.
- The website also features a complete timeline that fetches and compiles all the information about new developments implemented since the launch of USOF.
- This ensures transparency, accessibility, and seamless dissemination of information to the public, a significant step towards doorstep delivery of services.
- It contains an updated media gallery, linked social media platform, specified area displaying projects infographics etc.
- It also has the designated page for USOF's Telecom Technology Development Fund wherein the applicants can submit their proposals.

Third Global Conference on Antimicrobial Resistance

In News

The 3rd Global High-Level Conference on Anti-Microbial Resistance is recently organized in Muscat, Oman recently.

About the conference

- The 3rd Global High-Level Conference on Anti-Microbial Resistance (AMR) aims to accelerate countermeasures for antimicrobial resistance at the national, regional and global levels and boost international cooperation in this issue.
- The 2022 conference's theme is "The AMR: from Policy to One Health Action". It provides an opportunity for dialogue on One Health action to address the issue of antimicrobial resistance.
- It aims to pave the way towards bold and specific political commitments in the United Nations General Assembly High Level Meeting on AMR (UNGA HLM) in 2024.
- More than 40 countries took part in this conference from across the world.

Antimicrobial resistance

- Antimicrobial resistance (AMR) is the ability of microorganisms to persist and grow despite the administration of antimicrobials the drugs designed to inhibit or kill them.
- When microorganisms become highly resistant towards antimicrobials, standard treatments become ineffective and sometimes yield no desired outcome.
- This leads to the failure of treatment and increased instances of illness and mortality in humans, animals and plants.

Open Loop Ticketing System

In News

President of India Droupadi Murmu launched the "Open Loop Ticketing System" for the Haryana State Transport Corporation on the occasion of Gita Mahotsav 2022 in Kurukshetra.

loop Ticketing system

- The open-loop ticketing system aims to help commuters to do away with buying physical tickets for roadways buses.
- The entire system includes the National Common Mobility Card (NCMC) issued by AU Small Finance Bank, Electronic Tickets Issuing Machines (ETIMs), a GPS System, and Online Reservation System for advance booking of tickets.
- The AU Small Finance Bank will be providing the ETIMs and ticket payment transaction capability through cash, QR code or UPI.
- The open-loop ticketing system will initially be launched for bus routes originating from 6 districts Faridabad, Chandigarh, Karnal, Sonipat, Bhiwani, and Sirsa.
- Over 10 lakh National Common Mobility Cards (NCMCs) will be issued in the first phase, enabling commuters to use more than two transport systems without having to buy two separate tickets for them.

Significance

- The Open Loop Ticketing system will ensure transparency in the bus charges and curb revenue losses.
- It will improve the passengers' travel experience and minimize the requirement for cash transactions.
- It will provide the facility to book tickets via mobile applications and online reservation system (ORS).
- The system will also enable people to avail facilities like prepaid transit cards as bus passes to concessional or free categories of passengers like students, armed forces personnel, freedom fighters, etc.

Lumpi-ProVac

In News

MoU signed for commercial production of indigenously developed vaccine "Lumpi-ProVac" in presence of Union Minister FAHD Shri Parshottam Rupala and CM Maharashtra, Shri Eknath Shinde

About Lumpi-ProVac

- Lumpi-ProVacind is used for the prophylactic immunization of animals against Lumpy Skin Disease, which illicit protection for about one year
- The vaccine technology will meet out the standard of the market and significantly provide a defence mechanism to control the devastating lumpy skin disease.
- A single dose of the vaccine contains 103.5 TCID50 of live-attenuated LSDV (Ranchi strain).
- The vaccine is stored at 4°C. The vaccine must be shipped on ice and must be used within a few hours after reconstitution.

Lumpy Skin Disease

- The Lumpy Skin Disease has been reported in India from 2019 while first case was reported in the state of Odisha.
- After that, it has spread to multiple states in the country. In 2019, death of a large number of cattle has been reported from different states with high morbidity especially in North-West region of the country.
- The disease has been controlled and contained with the available Goatpox vaccine in the country.

Doppler Weather Radar Network by 2025

In News

On the occasion of 148th Foundation Day of India Meteorological Department (IMD), Union government had inaugurated the Doppler radar systems.

Doppler Effect

- Doppler Effect is the change in frequency of a wave in relation to an observer_who is moving relative to the wave source.
- It is named after the Austrian physicist Christian Doppler, who described the phenomenon in 1842.
- A common example of Doppler shift is the change of pitch heard when a vehicle sounding a horn approaches and recedes from an observer.
- Compared to the emitted frequency, the received frequency is higher during the approach, identical at the instant of passing by, and lower during the recession.
- The reason for the Doppler effect is that when the source of the waves is moving towards the observer, each successive wave crest is emitted from a position closer to the observer than the crest of the previous wave.

Doppler Radars in India

- In India, Doppler radars of varying frequencies S-band, C-band and X-band are commonly used by the IMD to track the movement of weather systems and cloud bands, and gauge rainfall over its coverage area of about 500 km.
- The radars guide meteorologists, particularly in times of extreme weather events like cyclones and associated heavy rainfall.
- An X-band radar is used to detect thunderstorms and lightning whereas C-band guides in cyclone tracking.
- With the radar observations, updated every 10 minutes, forecasters can follow the development of weather systems as well as their varying intensities, and accordingly predict weather events and their impact.
- India's east coast, which is frequently affected by cyclones formed in the Bay of Bengal, has radars operational at eight locations Kolkata, Paradip, Gopalpur, Visakhapatnam, Machilipatanam, Sriharikota, Karaikal and Chennai.

Doppler Weather Radar

- Based on Doppler principle, the radar is designed to improve precision in long-range weather forecasting and surveillance using a parabolic dish antenna and a foam sandwich spherical radome.
- DWR has the equipment to measure rainfall intensity, wind shear and velocity and locate a storm centre and the direction of a tornado or gust front.

Artificial Synapse for Brain-Like Computing Developed by Indian & Australian Scientists.

In News

Scientists have used scandium nitride (ScN), a semiconducting material with supreme stability and Complementary Metal-Oxide-Semiconductor (CMOS) compatibility, to develop brain-like computing.

Brain-Like computing device

• Traditional computers have physically separated memory storage and processing units. As a result, it takes enormous energy and time to transfer data between these units during an operation.

- On the contrary, the human brain is a supreme biological computer that is smaller and more efficient due to the presence of a synapse (the connection between two neurons) that plays the role of both processor and memory storage unit.
- In the current era of artificial intelligence, the brain-like computing approach can help meet the escalating computational demands.
- The development of neuromorphic hardware aims at mimicking a biological synapse that monitors and remembers the signal generated by the stimuli.
- Scientists have been trying to create an artificial synaptic device that does not suffer from RC delays, exhibits large bandwidth, consumes low energy, and is stable, scalable, and CMOS-compatible.

M Sand Projects

In News

Coal India Ltd (CIL) has envisaged processing the fragmented rock (known as Overburden Rocks (OB) for sand production in mines.

M Sand

- M sand is a form of artificial sand, manufactured by crushing large hard stones, mainly rocks or granite, into fine particles, which are then washed and finely graded.
- It is widely used as a substitute for river sand for construction purposes, mostly in the production of concrete and mortar mix
- Sand is classified as a 'minor mineral'. The administrative control over minor minerals lies with the State Governments and is regulated through state-specific rules.
- Due to high demand, regulated supply, and a complete ban on sand mining during monsoon to protect river ecosystems, finding alternatives to river sand became necessary.
- Sand Mining Framework (2018) prepared by the Ministry of Mines envisages alternative sources of sand in the form of Manufactured Sand (M-Sand) from crushed rock fines (crusher dust), and sand from Overburden (OB) of coal mines.

Benefits

- It can be produced in large quantities at a lower cost.
- In grain size and shape, which can be beneficial for construction projects that require a specific type of sand.
- Helps reduce the need for mining natural sand, which can have negative environmental impacts.
- Additionally, using the overburden from coal mines can help to repurpose materials that would otherwise be considered waste.
- Lesser Sand extraction from the river will reduce erosion of channel beds & banks and protect the water habitat
- Help maintain the water table

Issues

- Due to its smooth and angular textures, it leads to more water and cement requirements to achieve the expected workability, thereby increase in overall costs.
- If the M Sand contains a large number of micro fine particles, it can affect the strength and workability of concrete.

Ecology & Environment

e-DNA

In News

According to some studies, DNA floating in the air (i.e. e-DNA) can boost biodiversity conservation efforts across the world.

About e-DNA

- Environmental DNA (e-DNA) is nuclear or mitochondrial DNA that is released from an organism into the environment.
- Researchers from two teams have independently shown that environmental DNA (e-DNA) can potentially identify and monitor terrestrial animals.
- Animals shed DNA through their breath, saliva, fur or faeces into the environment and these samples are called e-DNA.
- Airborne e-DNA sampling is a biomonitoring method that is rising in popularity among biologists and conservationists as it provides abundant information.

Importance

- It can help understand the composition of animal communities and detect the spread of non-native species.
- This method will work with the current techniques to monitor endangered species after some fine-tuning.
- Typically, biologists observe animals in person or by picking up DNA from animals' footprints or faeces, which demand extensive fieldwork.
- Spotting animals can be challenging, especially if they inhabit inaccessible habitats.
- It can aid in tracking long-distance migratory birds and other birds' flying patterns. It can also capture DNA from smaller animals including insects.

Chilika Lake

In news

As per the water bird status survey-2022 conducted in the Chilika lake, nearly 11 lakhs water bird and wetland dependent species visited the lake.

About Chilika Lake

- Chilika is Asia's largest and world's second largest lagoon.
- In 1981, Chilika Lake was designated the first Indian wetland of international importance under the Ramsar Convention.
- Major attraction at Chilika is Irrawaddy dolphins which are often spotted off Satapada Island.
- The large Nalabana Island (Forest of Reeds) covering about 16 sq km in the lagoon area was declared a bird sanctuary in 1987.
- Kalijai Temple Located on an island in the Chilika Lake.
- Chilika lake hosts birds migrating from thousands of miles away from the Caspian Sea, Lake Baikal, Aral Sea, remote parts of Russia, Kirghiz steppes of Mongolia, Central and South East Asia, Ladakh and the Himalayas.

The birds find the vast mud-field and abundant fish stock here suitable to congregate

'Lakshya Zero Dumpsite'

In News

The Ministry of Housing and Urban Affairs has approved the proposal of Dadu Majra dumpsite remediation in Chandigarh and agreed to offer financial assistance to make the city completely free of garbage.

Details

- The 'Heritage City' of Chandigarh was founded in 1953 and planned by the Swiss-French architect Le Corbusier and is renowned for its meticulously planned public spaces, greenery and maintenance of the strict eco-friendly norms.
- A large number of Community and Public Toilet seats have been provided in the city that transformed the lives of the people making it hygienic and dignified.
- The city of Chandigarh has been recognised as 1-star Garbage Free in the recently concluded Star Rating Assessment for Garbage Free Cities in 2021 under the aegis of Swachh Bharat Mission- Urban 2.0.
- The city was recognised for its commitment to transform 'manhole to machine hole' as the best performing union territory in the SafaiMitra Suraksha Challenge 2021.
- The progressive steps taken by the city to achieve its target of becoming a garbage free city, must be taken further and replicated across the country.

IPCC

In News

India welcomes the release of the Working Group II (WG2) contribution to the Sixth Assessment Report (AR6) of the Intergovernmental Panel on Climate Change (IPCC).

Major Findings

- The Report affirms that climate change due to historical emissions is leading to serious impacts which are already being felt globally.
- The Report emphasizes that action on adaptation is urgently needed as urgently as action on mitigation.
- Further, the SPM clearly acknowledges the importance of Indigenous and Local Knowledge in adaptation to climate change.
- Vulnerable and marginalized communities, regions and populations face rising exposure to hazards.
- The Report is a clarion call for the world to abandon their unsustainable production and consumption and move urgently to climate resilient development.
- The Report notes that the impacts and the consequent limitations to adaptation would rise beyond 1.5 degree warming above pre-industrial levels.
- Provision of finance is critical for helping developing countries and vulnerable populations act quickly and effectively. Public finance is the key enabler for adaptation.
- Rapid progress on achieving the SDGs will help in enhancing adaptive capacity and resilience.
- The Report re-affirms that the balance between adaptation and mitigation in climate resilient development depends on national circumstances.
- Adaptation suffers from a tremendous lack of finance, with only a small proportion of climate finance devoted to it, while the overwhelming proportion goes to mitigation.
- The Report recognizes the key role of agriculture and the great importance of food security in adaptation.
- India faces multiple climate hazards and has high vulnerability to climate change.

Golden Langur

In News

Assam villagers are opposing the sanctuary tag for golden langur habitat.

The Assam Forest Department had issued a preliminary notification for converting the 19.85 sq. km. patch of forest into the Kajoijana Bamuni Hill Wildlife Sanctuary.

Difference between Wildlife Sanctuary, Reserve Forest and Community Forest Resource

- Wildlife Sanctuary: It is the place that is reserved exclusively for wildlife use, which includes animals, reptiles, insects, birds, etc. wild animals, especially those in danger of extinction and the rare ones, so that they can live in peace for a lifetime and keep their population viable.
- The Wildlife Protection Act, 1972 empowers the central and state governments to declare any area a wildlife sanctuary, national park or closed area.
- **Reserve forests**: They are the most restricted forests and are constituted by the State Government on any forest land or wasteland which is the property of the Government. In reserved forests, local people are prohibited, unless specifically allowed by a Forest Officer in the course of the settlement.
- **Community Forest Resource**: According to Section 2(a) of the Forest Rights Act, it is the customary common forest land within the traditional or customary boundaries of the village or seasonal use of landscape in the case of pastoral communities, including reserved forests, protected forests and protected areas such as sanctuaries and national parks to which the community had traditional access.

Golden langurs

- Scientific Name: Trachypithecus geei
- Golden langurs can be most easily recognized by the color of their fur, after which they are named.
- It has been noted that their fur changes colors according to the seasons as well as geography (region they live in).
- It is endemic to western Assam, India, and southern Bhutan.

Dholes

IN News

A new study has reported the presence of dholes or Asiatic wild dogs in the high mountains of Central Asia nearly 30 years after their presence was last recorded. The animals have been discovered in the Bek-Tosot Conservancy in the Osh region of southern Kyrgyzstan, a few kilometres from the Tajik border.

About Dholes

- Dhole (Cuon alpinus) is a wild carnivorous animal and is a member of the family Canidae and the class Mammalia.
- They are also known as Asian wild dogs.
- Historically, dholes purportedly occurred throughout southern Russia, all across central Asia, south Asia and southeast Asia.

According to recent research and current distribution maps, they are restricted to south and southeast Asia, with the northernmost populations in China.

In India, they are found in three clusters across India namely the Western and Eastern Ghats, central Indian landscape and North East India.

Coastal Vulnerability Index (CVI)

In News

Recently, the Indian National Centre for Ocean Information Services (INCOIS) has carried out a coastal vulnerability assessment for the entire Indian coast at States level. The assessment has been conducted to bring out an Atlas comprising 156 maps on 1:1,00,000 scales to prepare a Coastal Vulnerability Index (CVI).

About Index

- The maps will determine the coastal risks due to future sea-level rise based on the physical and geological parameters for the Indian coast.
- The CVI uses the relative risk that physical changes will occur as sea-level rises are quantified based on parameters like:
- Tidal range
- Wave height
- Coastal slope
- Coastal elevation
- Shoreline change rate
- Geomorphology
- Historical rate of relative sea-level change

Significance

- Coastal vulnerability assessments can be useful information for coastal disaster management and building resilient coastal communities.
- India has a coastline of 7516.6 Km i.e. 6100 km of mainland coastline plus coastline of 1197 Indian islands touching 13 States and Union Territories (UTs).

Extended Producers Responsibility(EPR) Guidelines

In News

The Ministry of Environment, Forest and Climate Change has issued notification on Extended Producers Responsibility to regulate plastic packaging under Plastic Waste Management Rules 2016.

The guidelines:

- The guidelines give a proper framework to improve the management of plastic waste and make it mandatory to reuse rigid plastic packaging material.
- The recycling of plastic waste under EPR guidelines along with the use of recycled plastic content will reduce plastic consumption and promote the practice of recycling.
- The guidelines set up a market mechanism for plastic waste management through the allowance of sale and purchase of surplus extended producer responsibility certificates.
- It will be implemented through a customised online platform that acts as the digital backbone of the system. This will enable online tracking and monitoring of EPR obligations and will decrease the compliance burden on the companies with the aid of online registration and filing of annual returns.
- It will also impose environmental compensation based on the polluter pays principle if the guidelines are not obeyed by the producers, importers and brand owners. As a result the pollution levels will be kept under check.
- In order to prevent the mixing of plastic packaging waste with solid waste, the producers, importer and brand owners may avail the provisions like deposit refund system or buy back or any other model.

World Sustainable Development Summit

In News

The Prime Minister of India will virtually address the inaugural ceremony of the World Sustainable Development Summit which is an annual flagship event of The Energy and Resources Institute (TERI).

About the Summit:

- The summit will continue for three days involving heads of various intergovernmental organizations, Ministers/Envoys representing more than a dozen countries and delegates from over 120 countries along with the Deputy Secretary-General, United Nations.
- It will attend to the areas of climate change, sustainable production, energy transitions, global commons and resource security.
- The summit will provide a single platform with interventions from various stakeholders to further strengthen the Sustainable Development Goals (SDGs).

Roorkee Water Conclave 2022

In news

Union Minister for Jal Shakti Shri Gajendra Singh Shekhawat inaugurated the 2nd edition of the 'Roorkee Water Conclave'

Theme: Water Security for Sustainable Development

Details

- Focusing on the theme, 'Water Security for Sustainable Development', this year's Conclave would focus upon understanding water security and its multiple facets underpinning sustainable water resource management as a key component of social development.
- 'Roorkee Water Conclave 2022' will help find solutions to the issues of water scarcity, sanitation and sustainable use of water.
- These efforts along with Integrated Ganga Rejuvenation Mission will prove to be effective in maintaining the ecological flow of river Ganga thereby ensuring the sustainable development of the environment through improving the quality of the water.
- National Mission for Clean Ganga (NMCG) has set up an exhibition at the Conclave till 7th March 2022, in which various aspects related to River Ganga and its conservation and rejuvenation efforts are showcased.

Background

- Indian Institute of Technology Roorkee and National Institute of Hydrology Roorkee jointly decided to organize regular international conference every 2 years in the area of various facets of water to be known as Roorkee Water Conclave.
- The first water conclave was organized broadly focusing on "*Hydrological Aspects of Climate Change*" during February 26 28, 2020.

'Sambhav' and 'Svavlamban initiatives

In News

Ministry of MSME launched two special initiatives - 'Sambhav' and 'Svavlamban' to promote entrepreneurship amongst youth, especially in aspirational Districts all across the country.

Details

- Union Minister of State for MSME inaugurated International Summit on Plastics Recycling & Waste Management organized by Ministry of MSME in association with The All-India Plastics Manufacturers' Association (AIPMA) from 4th – 5th March, 2022 at New Delhi.
- The Mega International Summit emphasizes on "Know your Waste and how Recycling is the right thing to do, which is to be done in a right way".
- This Mega Event is an effective platform to bring together the stakeholders and experts to discuss the impact and possible solution for MSMEs and open new business opportunities in the Plastics industry and the Recycling Sector with a great belief in the vision of Swachh Bharat Abhiyan".
- As part of the Iconic Week Celebrations under Azadi ka Amrit Mahotsav, Ministry of MSME is conducting Sambhav- National Level Awareness Program (NLAP) in Webinar Mode from 28.02.2022 to 31.03.2022 in 1300 colleges across the country through its field offices and organising more than 200 Nukkad Natak in 46 Aspirational Districts under a Special Drive called Svavlamban to promote entrepreneurship amongst youth population and spreading awareness on Schemes of Ministry and its Initiatives.

'India Water Pitch-Pilot-Scale Start-up Conclave'

In News

The Ministry of Housing and Urban Affairs is organising a national level 'India Water Pitch-Pilot-Scale Start-up Conclave' on 12 March, 2022 at Stein Auditorium, India Habitat Centre, New Delhi.

Details

- Aim -to start the communication with Start-ups in water sector.
- The Minister of Housing and Urban Affairs, Shri Hardeep S. Puri will launch 'India Water Pitch-Pilot-Scale Start-up Challenge' during the conclave and deliver the keynote address.
- The Ministry will select 100 start-ups through this challenge, which will be provided Rs.20 lakhs as funding support.
- More than 50 Start-ups will pitch/exhibit innovative solutions for urban water problems.
- User, industry, sector experts and investors will also attend the conclave.
- This conclave is expected to be a starting point for interaction between user such as States/ cities/ parastatal agencies, start-ups, sector experts and industry.
- User will also get first-hand experience of innovative solutions.

About AMRUT

- The Prime Minister has launched the Atal Mission for Rejuvenation and Urban Transformation 2.0 (AMRUT 2.0) on 01 October, 2021 with the aim of making Indian cities 'Aatma Nirbhar' and 'Water Secure'.
- The Mission envisages to provide functional water tap connections to all urban households, providing universal household coverage of sewerage/septage services in 500 AMRUT cities, undertaking rejuvenation of water bodies, recycle/ reuse of treated used water, rainwater harvesting and provision of green spaces thereby improving ease of living.

Swachhta Pakhwada Awards

In News

• The MoPNG Swachchta Pakhwada Awards were presented to the winners by the Minister of Petroleum and Natural Gas Shri Hardeep Singh Puri.

The Minister also launched the Ministry's annual publication 'Indian Petroleum & Natural Gas Statistics 2020-21'.

• This is a repository of data which gives an overall picture of India's oil & Gas sector including exploration, production, refining, transportation and marketing, imports and exports of crude oil& petroleum products.

About Swachhta Pakhwada

- Swachchta is more than a scheme.
- It not only has the physical targets, but also it is a process aimed at generating higher consciousness about cleanliness.
- He said that the stakeholders in the oil and gas sector have captured this philosophy in their work and their premises have become top class.
- The Minister also lauded the sector for its contribution in the national economy.
- In order to ensure a healthy competition and more effective outcome of the Pakhwada, "Swachhta Pakhwada Awards" have been instituted for exemplary performance during the fortnight.
- Base on their performance in the event, **IOCL was ranked first, ONGC second and HPCL came third.**

Swachhata Startup Challenge

In News

Government has launched 'Swachhata Startup Challenge' in collaboration with Department for Promotion of Industry and Internal Trade (DPIIT) to promote an enabling environment for development startups and entrepreneurs in the waste management sector.

About Challenge

- The scheme provides for the ten best solutions from the startups to be selected and each of them to get financial support of ₹25 Lakh per selected project and one year dedicated incubation support.
- In addition to the "Swachhata Startup Challenge", Government has also launched the "Swachh Technology Challenge".
- As per the "Swachh Technology Challenge" guidelines, all Urban Local Bodies (ULBs) conducted the challenge and submitted two best solutions to States after which States evaluated the entries to identify maximum three best entries.
- The ULBs across the country have to provide implementation support to the wining solutions startups other than award money and State/City level felicitation.

Deep Ocean Mission

In News

Recently the Cabinet has approved a mission mode programme "Deep Ocean Mission" to be implemented by the Ministry of Earth Sciences, Govt. of India.

Objectives

- to provide projections of sea level rise along the coast of India under the various climate change scenarios.
- As an outcome of this project, a suite of interactive GIS maps identifying vulnerable areas and possible inundation scenarios will be prepared.

About Deep sea mission

• The cost of the Mission has been estimated at Rs. 4,077 crore over a five-year period and will be implemented in phases.

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- MoES will be the nodal ministry implementing this multi-institutional ambitious mission.
- It will be a mission mode project to support the Blue Economy Initiatives of the Government of India.
- Indian Space Research Organisation (ISRO) is one of the collaborators of the Ministry of Earth Sciences for implementation of Deep Ocean Mission.

About NIDT

- National Institute of Ocean Technology (NIOT), an autonomous institute under the Ministry of Earth Sciences is developing a manned submersible with a capacity to carry three human beings to 6000 m ocean depth.
- The Vikram Sarabhai Space Centre (VSSC) of ISRO is involved in developing a titanium alloy human sphere of 2.1 m diameter for the manned submersible.

Village Disaster Management Plan

In News

- Union Minister of Rural Development & Panchayati Raj Shri Giriraj Singh released the Disaster Management Plan of Ministry of Panchayati Raj.
- Ministry of Panchayati Raj has developed the Disaster Management Plan with an aim to develop disaster resilience at the grassroots level among the Panchayats and establish a framework to align the disaster management measures in rural areas to that of the National Disaster Management Authority.

Provisions of plan

- The involvement of the community is the key factor in any disaster preparedness strategy and active participation of the community is vital to carry out and sustain the activities relating to disaster management in rural areas.
- He stressed on the need to formulate Panchayat-level and village-level Disaster Management Plans to mitigate the challenges in the event of disaster.
- Ministry of Panchayati Raj highlighted that the "Disaster Management Plan of Ministry of Panchayati Raj" (DMP-MoPR) has been prepared with larger perspective of community-based planning starting from Village to District Panchayat level.
- Under the Plan, every Indian village would have "Village Disaster Management Plan" and every Panchayat would have their Disaster Management Plan.
- The DMP prepared by Villages and Panchayats in consonance with the Disaster Management Plan of Ministry of Panchayati Raj would be useful for addressing disasters in comprehensive manner.
- All stakeholders including PRIs, elected representatives and functionaries of Panchayats etc. would participate in planning, implementation, monitoring and evaluation of the plan.

Need of the plan

- India has been vulnerable, in varying degrees, to many natural as well as human-made disasters on account of its unique geo-climatic and socio-economic conditions. Different parts of the country are highly vulnerable to cyclones, floods, droughts, earthquakes, landslides, etc.
- Considering the important role that local communities can play in reducing vulnerabilities and early recovery, the Ministry of Panchayati Raj (MoPR) has prepared this Disaster Management Plan (DMP) so that all Panchayati Raj Institutions along with communities can be prepared for any disaster.

Pacer Initiative

In News

Polar Science and Cryosphere Research (PACER) scheme comprising the Antarctic program, Indian Arctic program, Southern Ocean program and Cryosphere and Climate program is implemented successfully through National Centre for Polar and Ocean Research (NCPOR), an autonomous institute under the Ministry of Earth Sciences.

Major achievements of the PACER scheme

- Twenty-three research projects related to glaciology, marine science, polar biology, and atmospheric science were successfully carried out during 2019-20 Arctic Expedition.
- IndARC mooring system along with Hydrophone system was successfully retrieved and deployed in Kongsfjorden, Svalbard.
- Coastal cruises were undertaken in the Arctic Svalbard archipelago to carry out biogeochemical and microbial research in the glacio-marine system.
- The Polar Science and Cryosphere (PACER) scheme has been approved for continuation during 2021-2026.
- Glaciological field campaigns were carried out in six benchmark glaciers in Chandra basin of Lahaul-Spiti region of Western Himalaya.
- Two new Automatic Weather Station (AWS) systems were installed at Baralacha La, a high elevation site in the arid Spiti region to strengthen infrastructure across the Chandra basin.

Kala Namak Paddy

In News

The Government of Uttar Pradesh is promoting Kala Namak rice under One District One Product (ODOP) and has sanctioned a project of Rs. 12.00 crore for promotion of Kala Namak rice.

About Paddy

- Kala Namak rice is grown in the tarai area of Siddharth Nagar and ten neighboring districts of eastern Uttar Pradesh.
- It is a scented rice variety which is generally offered better price as compared to other rice varieties to the farmers.
- The Government of India, through Agricultural and Processed Food Products Export Development Authority (APEDA), has taken various initiatives to promote Kala Namak rice viz; capacity building programme for farmers and stakeholders, agri-export farming, organizing 'Kala Namak Mahotsav', coordination with Farmer Producers Organizations (FPOs), exporters and farmers.
- The State Governments can also promote cultivation of Kala Namak rice under Rashtriya Krishi Vikas Yojana —Remunerative Approaches for Agriculture & Allied sector Rejuvenation (RKVY- RAFTAAR) with the approval of the State Level Sanctioning Committee (SLSC) constituted under the chairmanship of the chief secretary of the State.

October 5 as National Dolphin Day

In News

Union Minister for Environment, Forest and Climate Change informed that Standing Committee of the National Board for Wild has recommended to celebrate October 5th as National Dolphin Day every year as a historic step in creating awareness for conservation of Dolphins.

Details

- Healthy aquatic ecosystems help in maintaining the overall health of the Planet.
- Dolphins act as ideal ecological indicators of a healthy aquatic ecosystem and conservation of the Dolphins will, therefore, benefit the survival of the species and also, the people dependent on the aquatic system for their livelihood.
- Considering that generating awareness amongst the people on the benefits of conservation of Dolphins and participation of people in conservation efforts is imperative, the Standing Committee recommended that every year 5th of October shall be celebrated as National Dolphin Day.

About Dolphins

- Scientific Name: Platanista gangetica minor
- According to a recent study of South Asian river dolphins, Indus and Ganges River dolphins are not one, but two separate species. Currently, they are classified as two subspecies under Platanista gangetica.
- Like other freshwater dolphins (such as Ganges river dolphins), the Indus river dolphin is an important indicator of the health of a river.
- Other dolphins found in Indian waters include: Ganges River Dolphins, Irrawaddy dolphins.

Indian Tent Turtles

In News

- Indian tent turtle is listed in Schedule –I of the Wild Life (Protection) Act, 1972 and is thereby provided the highest degree of protection.
- There are no reports to indicate that the Indian tent turtle is on the verge of extinction due to illegal mining in Narmada River.

Measures taken by the Govt.

- National Parks, Wildlife Sanctuaries, Conservation Reserves and Community Reserves have been created in the country covering important habitats to provide better protection to wildlife, including threatened species and their habitat.
- Financial assistance is provided to the State/Union Territory Governments under the Centrally Sponsored Scheme of 'Integrated Development of Wildlife Habitats', for providing better protection to wildlife and improvement of habitat.
- The Wild Life (Protection) Act, 1972 provides for stringent punishment for violation of its provisions. The Act also provides for forfeiture of any equipment, vehicle or weapon that is used for committing wildlife offence(s).
- The local communities are involved in conservation measures through eco-development activities which help the forest departments in protection of wildlife.
- The Wildlife Crime Control Bureau (WCCB) coordinates with State/UTs and other enforcement agencies to gather intelligence about poaching and unlawful trade in wild animals and animal articles.

Tissue Culture Plants

In News

In order to boost exports of tissue culture plants, Centre, through the Agricultural and Processed Food Products Export Development Authority (APEDA), conducted a webinar on "Export Promotion of Tissue Culture Plants such as

Foliage, Live Plants, Cut Flowers, and Planting Material" with Department of Biotechnology (DBT) accredited tissue culture laboratories spread across India.

Plant Tissue culture

It is **culturing plant seeds, organs, explants, tissues, cells, or protoplasts** on a chemically defined synthetic nutrient media under sterile and controlled conditions of light, temperature, and humidity.

Benefits

- Quickly produce mature plants.
- Allows them to be moved with greatly reduced chances of transmitting diseases, pests, and pathogens.
- Storage of genetic plant material to safeguard native plant species.

India's exports of tissue culture plants:

- In 2020-2021, India's exports of tissue culture plants stood at US USD 17.17 million, with the Netherlands accounting for around 50 per cent of the shipments.
- The top ten countries importing tissue culture plants from India are the Netherlands, USA, Italy, Australia, Canada, Japan, Kenya, Senegal, Ethiopia and Nepal.

Challenges faced by tissue culture plant laboratories

- Increasing power costs.
- Low efficiency levels of the skilled workforce in the laboratories.
- Contamination issues in the laboratories.
- Cost of transportation of micro-propagated planting material.
- Lack of harmonization in the HS code of Indian planting material with other nations.
- Objections raised by the forest and quarantine departments to the export of live planting material.

Clean Air For All

In News

Jan Bhagidari' or participative governance holds the key." This was stated by Union Minister for Environment, Forest & Climate Change, Shri Bhupender Yadav in Chennai today during the inauguration of Sensitization cum Review Workshop – National Clean Air Programme (NCAP) and XV-FC Million Plus Cities Challenge Fund (XV-FC MPCCF) of Southern region comprising.

Clean Air Initiative

- It was launched by the MoEFCC in January 2019.
- It is the first-ever effort in the country to frame a national framework for air quality management with a time-bound reduction target.
- It seeks to cut the concentration of coarse (particulate matter of diameter 10 micrometer or less, or PM10) and fine particles (particulate matter of diameter 2.5 micrometer or less, or PM2.5) by at least 20% in the next five years, with 2017 as the base year for comparison.
- The plan includes 102 non-attainment cities, across 23 states and Union territories, which were identified by the Central Pollution Control Board (CPCB) on the basis of their ambient air quality data between 2011 and 2015.

Assam Floods

In News

- Torrential rainfall and landslides in the past few days have eroded sections of roads and railway tracks in Assam's Dima Hasao district affecting road and rail connectivity to the Barak Valley region of the state.
- Communication lines have also snapped in several parts of the north-east region.

Why is Assam prone to floods?

- **Brahmaputra** is braided and unstable in its entire reach in Assam except for a few places. The main reasons behind the instability of the river are high sedimentation and steep slopes.
- **High percentage of flood prone region:** 31.05 lakh hectares of the total 78.523 lakh hectares area of the state is prone to frequent floods. And the reasons behind this high flood prone area percentage are both man-made and natural.
- EARTHQUAKES/LANDSLIDES: Assam and some other parts of the northeastern region are prone to frequent earthquakes, which causes landslides. The landslides and earthquakes send in a lot of debris in the rivers, causing the river bed to rise.
- **BANK EROSION:** Assam has also faced bank erosion around the Brahmaputra and Barak rivers as well as their tributaries. It is estimated that annually nearly 8000 hectares land is lost to erosion. Bank erosion has also affected the width of the Brahmaputra river, which has increased up to 15 km.
- **DAMS**: Among the man-made reasons, the key cause of floods in Assam region is releasing of water from dams situated uphill. Unregulated release of water floods the Assam plains, leaving thousands of people homeless every year.
- Unplanned expansion of the urban areas has led to severe encroachments in the wetlands, low lying areas, hills and shrinkage of forest cover.
- Guwahati's topography it's shaped like a bowl does make it susceptible to water logging.

Measures

- Studying the river and the impact of climate change is a must to understand why the state gets flooded every year.
- Water flow information shared by China on the Brahmaputra with India, for which India pays a certain amount, should also be shared with the public, as this will help in understanding the river better and therefore help people better prepare for floods.
- More accurate and decentralised forecasts of rain can help in improving preparedness. Weather reports should be made available on district level and should be accessible to public.

Q-CHAMP

In News

Quad countries recently launched the Quad Climate Change Adaptation and Mitigation Package (Q-CHAMP)" with "**mitigation**" and "**adaptation**" as its two themes.

Q- Champ

• Q-CHAMP includes ongoing activities under the Quad Climate Working Group on: green shipping and ports aiming for a shared green corridor framework building on each Quad country's input; clean energy cooperation in clean hydrogen and methane emissions from the natural gas sector; strengthening clean energy supply chains, welcoming the contribution of the Sydney Energy Forum; climate information services for developing an engagement strategy with Pacific island countries; and disaster risk reduction, including

disaster and climate resilient infrastructure such as the efforts through the Coalition for Disaster Resilient Infrastructure (CDRI).

• Its coverage includes new cooperation in clean fuel ammonia, CCUS/Carbon Recycling, cooperation and capacity building support to advance high integrity carbon markets under Article 6 of the Paris Agreement, climate-smart agriculture, knowledge sharing on subnational climate actions, and ecosystem-based adaptation.

Swachh Survekshan 2023

In News

The Secretary, Ministry of Housing and Urban Affairs (MoHUA), Shri Manoj Joshi has launched the eighth edition of Swachh Survekshan (SS) – SS 2023 under Swachh Bharat Mission Urban 2.0, in a virtual event.

SS2023

- Designed with the theme of 'Waste to Wealth' as its driving philosophy, SS 2023 is curated towards achieving circularity in waste management.
- The survey would give priority to the principle of 3Rs Reduce, Recycle and Reuse.
- In SS 2023, the evaluation will be conducted in 4 phases, instead of 3 phases in earlier editions and citizen validation and field assessment of processing facilities is being introduced in the phase 3 also, in addition to phase 4.
- In SS 2023, additional weightage has been given to source segregation of waste, enhancement of waste processing capacity of cities to match the waste generation and reduction of waste going to the dumpsites.
- Indicators have been introduced with additional weightage on emphasizing the need for phased reduction of plastic, plastic waste processing, encourage waste to wonder parks and zero waste events.

Swachh Survekshan

- Swachh Survekshan was introduced by MoHUA in 2016 as a competitive framework to encourage cities to improve the status of urban sanitation while encouraging large scale citizen participation.
- Over the years Swachh Survekshan has been an enabler for Mission acceleration in the cities.
- The journey that started in 2016 with only 73 cities with million plus population has grown manifold, with 434 cities in 2017, 4,203 cities in 2018, 4,237 cities in 2019, 4,242 cities in SS 2020, 4,320 cities in SS 2021, and 4,355 cities in SS 2022, including 62 Cantonment Boards.

New species of venomous snake registered from Northeast

In News

Meghalaya, the land of the mythical evil spirit that takes the form of a giant serpent called U Thlen, has yielded a new-to-science, venomous green snake.

Maya's Pit Viper

- A new venomous green snake named Trimeresurus mayaae or Maya's Pit viper was recently discovered from Meghalaya.
- The snake is named in honour of Col Yashpal Singh Rathee's late mother Maya.
- The new species was relatively common in Meghalaya, Mizoram and even in Guwahati (Assam).
- The snake measures about 750 mm in length.

Pit Viper

- **Pit viper,** any species of viper (subfamily Crotalinae) that has, in addition to two movable fangs, a heatsensitive pit organ between each eye and nostril which together help it accurately aim its strike at its warmblooded prey.
- Pit vipers are found from deserts to rainforests.
- They may be terrestrial, arboreal, or aquatic. Some species lay eggs; others produce live young.
- The venomous pit vipers species includes hump-nosed pit viper, Mangrove pit viper and Malabar Pit Viper.

Integrated Landscape Management Plan

In News

The final report of Integrated Landscape Management Plan for Greater Panna Landscape was released by Shri Pankaj Kumar, Secretary, Department of Water Resources, River Development & Ganga Rejuvenation, Ministry of Jal Shakti.

About the plan

- This integrated landscape management plan has been prepared in respect of Ken-Betwa Link Projectby Wildlife Institute of India (WII).
- The Integrated Landscape Management Plan provides for better habitat protection, and management of flagship species such as Tigers, Vultures, and Gharial.
- It will help to holistically consolidate the landscape for biodiversity conservation and human well-being, especially forest dependent communities.
- It is expected to enhance tiger carrying capacity in the landscape by strengthening connectivity with Nauradehi wildlife sanctuary and Durgavati wildlife sanctuary in MP and Ranipur wildlife sanctuary in UP.

Ken- Betwa Water Linking Project

- The Ken-Betwa Link Project (KBLP) is the River interlinking project that aims to transfer surplus water from the Ken river in MP to Betwa in UP to irrigate the drought-prone Bundelkhand region.
- The region spread across the districts of two states mainly Jhansi, Banda, Lalitpur and Mahoba districts of UP and Tikamgarh, Panna and Chhatarpur districts of MP.
- The project involves building a 77-metre tall and a 2-km wide Dhaudhan dam and a 230-km canal.
- Ken-Betwa is one of the 30 river interlinking projects conceived across the country.

A Unique Liquid-Mirror Telescope

In News

A new telescope facility atop a mountain in the Himalayan range will now keep a watch on the overhead sky to identify transient or variable objects such as supernovae, gravitational lenses, space debris, and asteroids.

Liquid Mirror Telescope

- The telescope, commissioned at Devasthal, a hill in Uttarakhand, will help in surveying the sky making it possible to observe several galaxies and other astronomical sources just by staring at the strip of sky that passes overhead.
- It is the first liquid mirror telescope in the country and the largest in Asia.
- Built by astronomers from India, Belgium and Canada, the novel instrument employs a 4-meter-diameter rotating mirror made up of a thin film of liquid mercury to collect and focus light.

- It is located at an altitude of 2450 metres at the Devasthal Observatory campus of Aryabhatta Research Institute of Observational Sciences (ARIES), an autonomous institute under the Department of Science and Technology (DST), Govt. of India in Nainital district, Uttarakhand.
- "ILMT is the first liquid-mirror telescope designed exclusively for astronomical observations installed at the Devasthal Observatory of ARIES.

LiFE Movement

In News

Prime Minister Shri Narendra Modi will launch a global initiative 'Lifestyle for the Environment (LiFE) Movement' on 5th June 2022.

LiFE Movement

- The launch will initiate 'LiFE Global Call for Papers' inviting ideas and suggestions from academics, universities & research institutions etc to influence and persuade individuals, communities and organisations across the world to adopt an environment conscious lifestyle.
- The idea of LiFE was introduced by the Prime Minister during the 26th United Nations Climate Change Conference of the Parties (COP26) in Glasgow last year.
- The idea promotes an environment conscious lifestyle that focuses on 'mindful and deliberate utilisation' instead of 'mindless and destructive consumption'.

Save Soil Movement'

In News

On the occasion of World Environment Day, Prime Minister Shri Narendra Modi will attend a programme on 'Save Soil Movement' at Vigyan Bhawan.

Save Soil Movement

- It is a global movement to increase awareness about deteriorating soil health and bring about a conscious response to improve it.
- The movement was started by Sadhguru in March 2022, who embarked on a 100 day motorcycle journey passing through 27 countries. 5th June marks the 75th day of the 100 day journey.
- Prime Minister's participation in the programme will be reflective of the shared concerns and commitment towards improving the health of soil in India.

'Lifestyle for the Environment- LiFE Movement'

In News

Prime Minister Shri Narendra Modi launched a global initiative 'Lifestyle for the Environment - LiFE Movement' via video conference.

About LiFE Movement

- The idea of LiFE was introduced by the Prime Minister during the 26th United Nations Climate Change Conference of the Parties (COP26) in Glasgow last year.
- The idea promotes an environment-conscious lifestyle that focuses on 'mindful and deliberate utilisation' instead of 'mindless and destructive consumption.

- Vision To live a lifestyle that is in tune with our planet and does not harm it.
- And those who live such a lifestyle are called "Pro-Planet People".
- Mission LiFE borrows from the past, operates in the present and focuses on the future.
- Reduce, Reuse and Recycle are the concepts woven into our life.
- The Circular Economy has been an integral part of our culture and lifestyle.

Achievements of India

- India's commitment to reach 40% of installed electric capacity from non-fossil fuel-based sources has been achieved, 9 years ahead of schedule.
- The target of 10% ethanol blending in petrol has been achieved 5 months ahead of the November 2022 target.
- This is a major accomplishment given that blending was hardly 1.5% in 2013-14 and 5% in 2019-20.

FEAST Framework

- EAST framework of behaviour change. EAST stands for Easy, Attractive, Social and Timely.
- F is for Fun.

NSEFI's Pan-India Rooftop Solar Awareness Campaign

In News

Shri Bhagwant Khuba, Minister of State for New and Renewable Energy launched the Pan-India Rooftop Solar Awareness Campaign in an event at Bidar, Karnataka.

About the Campaign

- Rooftop Solar provides an opportunity to the common person to make his contribution towards Global Warming & Climate Change.
- This campaign titled "GHAR KE UPAR SOLAR IS SUPER" shall aim at mobilizing local government, citizens, RWAs, and Municipalities to spread awareness of Solar Rooftop.
- Rooftop solar will play major role and Tier-2 & Tier-3 cities offer maximum potential in achieving this target.
- Karnataka alone has the potential of 1 GW rooftop solar.
- The minister highlighted that MNRE is providing 40% of subsidy for households to install solar.
- Hence he urged public to install rooftop by utilizing subsidy from central government.
- In PM-KUSUM scheme farmers will be given 30% subsidy each by centre and state to install solar pumps.

About NSEFI

NSEFI, with the support of the German Solar Association (BSW) and the German Federal Ministry of Economic Cooperation and Development (BMZ) under the Sequa KVP Programme, is launching a 3 year long, Pan India Rooftop Awareness Program aimed at increasing awareness of Solar Rooftops among 100 Indian towns and cities, especially tier 2 and tier 3 towns/cities.

Leaders in Climate Change Management Program

In News

In conjunction with the World Environment Day that was observed on June 5, the National Institute of Urban Affairs (NIUA) and World Resources Institute (WRI) India, jointly announced **'Leaders in Climate Change Management'** (LCCM), a practice-based learning program.

About LCCM

- It aims at building capacity among urban professionals to lead climate action across sectors and geographies in India.
- To facilitate this face-to-face learning program, the Administrative Training Institute (ATI), Mysuru, also singed a tripartite Memorandum of Understanding (MoU) with NIUA and WRI India, becoming the first delivery partner of the LCCM program.
- LCCM envisions capacitating 5,000 professionals, including mid to junior-level government officials and frontline workers, and preparing them to champion climate change adaptation and mitigation solutions towards a coordinated effort to achieve India's climate commitments.
- The launch also marked the achievements of the Ministry of Housing and Urban Affairs towards India's urban climate goals.
- This program is another initiative in a long line of government interventions to not only combat climate change but also to build a new path of sustainable development that fulfils our economic conditions.
- 'The LCCM program, designed and implemented in partnership with the United Nation Environment Programme (UNEP) and Indian School of Business (ISB), aims to strengthen India's workforce to achieve this goal.
- LCCM is a blended learning program for urban practitioners looking to upskill and prepare themselves to deliver effective climate action.

The program has four phases:

- the first phase- is an online learning module that can be completed over eight weeks;
- the next includes face-to-face sessions spanning four to six days;
- the third phase mandates participants to complete a project over six to eight months and attending exposure visits; and
- the final phase includes networking and establishing a community of practice.

About NIUA

Established in 1976, the National Institute of Urban Affairs (NIUA) is India's leading national think tank on urban planning and development.

About WRI India

- WRI India, an independent charity legally registered as the India Resources Trust, provides objective information and practical proposals to foster environmentally sound and socially equitable development.
- Its work focuses on building sustainable and liveable cities and working towards a low carbon economy.

75 sea beaches to be cleaned up across the country for 75 days

In News

Union Minister of State (Independent Charge) Science & Technology; Dr Jitendra Singh chaired a meeting to review preparations for the upcoming "International Coastal Cleanup Day 2022" recently.

International Coastal Cleanup Day

- The annual event, which is organized on the 3rd Saturday of September every year, is falling on 17th September this year which is, coincidentally, the birthday of Prime Minister Shri Narendra Modi, who has been pioneering the cause of cleanliness (Swachhta), sea beach protection, environment and climate protection in all its forms.
- This year's event also coincides with the celebrations of Azadi Ka Amrit Mahotsav in the 75th year of country's independence.

- It will be the first-of-its-kind and longest running coastal cleanup campaign with highest number of people participating in it.
- The target of the drive is to remove 1,500 tonnes of garbage from the sea coasts which will be a huge relief to marine life and the people staying in coastal areas.

Green Climate Fund

In News

A stakeholder consultation workshop on "Understanding India's Climate Financing needs and its mobilization with focus on **Green Climate Fund (GCF)**" was organized by Ministry of Environment, Forest and Climate Change, Government of India under the ongoing GCF Readiness Program recently.

About GCF

- The **Green Climate Fund (GCF)** is a new global fund created by the United Nations Framework Convention on Climate Change to support the efforts of developing countries to respond to the challenge of climate change.
- The Green Climate Fund (GCF) is the world's largest environmental fund that seeks to help developing nations in cutting down their greenhouse gas emissions, while at the same time making them adapt suitably to climate change.
- This is done by supporting projects, programmes, policies and other activities through a state-of-the-art funding window.
- It was established formally as a financing mechanism by the United Nations Framework Convention on Climate Change (UNFCCC) in 2010 it is headquartered in the Songdo district in South Korea.
- The mandate of GCF is to promote a paradigm shift towards low-emission and climate-resilient development pathways by providing support to developing countries to limit or reduce their greenhouse gas emissions (mitigation) and to adapt to the impacts of climate change (adaptation).

NIUA's C-Cube and WRI India launch the India Forum for Nature-Based Solutions

In News

The National Institute of Urban Affairs' (NIUA) Climate Centre for Cities (NIUA C-Cube), World Resources Institute India (WRI India) and their partners launched India's first national coalition platform for urban nature-based solutions (NbS) at the 11th World Urban Forum in Poland.

India Forum for Nature-based Solutions

- 'India Forum for Nature-based Solutions' is led by the National Institute of Urban Affairs' Climate Centre for Cities (NIUA C-Cube) and anchored by World Resources Institute India (WRI Indija) under the Cities4Forests initiative.
- It is supported by Caterpillar Foundation, Department of Environment, Food & Rural Affairs (DEFRA), Govt. of United Kingdom and Norway's International Climate and Forest Initiative (NICFI).

AIM-

The India Forum for Nature-based Solutions aims to create a collective of NbS entrepreneurs, government entities and like-minded organisations, to help scale urban nature-based solutions by

- Defining a shared language and by communicating benefits that inform actions at the local level including scaling up of existing NbS interventions.
- Driving investment and strengthening delivery mechanisms through multi-stakeholder coordination.

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• Mainstreaming urban ecosystem-based services and nature-based solutions in India through informing policy, plans and project interventions

Great Assam Earthquake

In News

Researchers have traced the great Assam Earthquake to complex tectonics of the North Eastern fringe of the Indian Plate in the Eastern Himalaya and the Indo-Burma Ranges (IBR) and the interactions between the two, which can produce deeper earthquakes in IBR and crustal ones in the Eastern Himalaya.

About Study

- The north-eastern fringe of the Indian Plate in the Eastern Himalaya has been found to be seismically active up to about 40 km depth, while the seismicity in the Indo-Burma Ranges (IBR) is observed up to a depth of around 200 km.
- They have suggested that this seismic structure forms a complex tectonics which produced the great Assam earthquake of 1950 (M 8.6) and maybe building up stress for a future earthquake.
- The Great Assam Earthquake is the largest intra-continental earthquake ever recorded, which was located at the India-China border near the Mishmi Hills of Arunachal Himalaya.
- The Eastern Himalayan Syntaxis (EHS) in Arunachal Pradesh and bordering regions of Assam is acknowledged as one of the most seismically active regions in the world.
- After the 1950 great Assam earthquake, the region between the upper Assam and the Mishmi Block is not producing any large earthquakes and is considered as a seismic gap region.

Seismological observatory

In News

Union Minister of State (I/C) Science & Technology; Minister of State (I/C) Earth Sciences; said that Udhampur has emerged on the world seismological map with the installation of latest upgraded Seismological Observatory by the Ministry of Earth Sciences.

About Observatory

- It will record the data related to the inner activities of the earth's crust and will provide data to various seismological stations across the globe.
- J&K is in the seismic zone especially South and North Kashmir where such Observatories have been established.
- Udhampur is the third place in J&K where such seismological observations will be recorded now.
- Udhampur district lies between the two seismological fault lines and thus can provide critical data related to the earthquakes.

India's first ever Animal Health Summit

In News

- Shri Parshottam Rupala, Union Minister of Fisheries, Animal Husbandry and Dairying said that there is need to strengthen the cooperative movement in the livestock sector.
- Inaugurating First India Animal Health Summit 2022, he called for greater use of Ayurveda for ensuring better animal health.

About Animal Health Summit

- First India Animal Health Summit 2022 was held at NASC Complex, New Delhi understanding the significance of animal health towards the broader objective of the country's food and nutrition security, rural incomes and prosperity and overall economic development.
- 'India Animal Health Summit 2022' organized by Indian Chamber of Food and Agriculture (ICFA) and the Agriculture Today Group.
- The two-day event will host a plethora of panel discussions ranging from topics such as Animal Health policy initiatives to Business environment & investment opportunities in the Animal Health sector.
- The deliberations evolved will later be documented and presented to authorities.

75 Ramsar Sites in 75th Year of Independence

In News

Government has added 11 more wetlands to the Ramsar list of wetlands.

Ramsar Sites

- Ministry of Environment, Forests and Climate Change said, the 11 new sites include, four in Tamil Nadu, three in Odisha, two in Jammu and Kashmir and one each in Madhya Pradesh and Maharashtra.
- Designation of these sites would help in conservation and management of wetlands and wise use of their resources.

Ramsar Convention

- India is one of the Contracting Parties to Ramsar Convention, signed in Ramsar, Iran in 1971. India signed it on 1st February 1982.
- During 1982 to 2013, a total of 26 sites were added to the list of Ramsar sites, however, during 2014 to 2022, the country has added 49 new wetlands to the list of Ramsar sites.
- During this year itself, a total of 28 sites have been declared as Ramsar sites. Based on the date of designation mentioned on Ramsar Certificate, the number is 19 for 2022 and 14 for 2021.
- Tamil Nadu has maximum number of Ramsar sites which is 14, followed by Uttar Pradesh which has 10 numbers of Ramsar sites.

Tampara Lake (Odisha)

- Tampara Lake is among the most prominent freshwater lakes in the State of Odisha.
- It is called 'Tampara' as the depression on the ground gradually filled with rainwater from catchment flow and was called "Tamp" by the British and subsequently termed "Tampra" by the locals.
- The wetland is an important habitat for vulnerable species such as Cyprinus carpio, common pochard (Aythya ferina), and river tern (Sterna aurantia).
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Chitrangudi Bird Sanctuary (Ramanathapuram, Tamil Nadu)

- The wetland is a protected area since 1989 and declared a Bird Sanctuary.
- It is an ideal habitat for winter migratory birds.

Suchindram Theroor Wetland Complex (Kanya Kumari, Tamil Nadu)

- It is part of the Suchindrum-Theroor Manakudi Conservation Reserve.
- It is declared an Important Bird Area and lies at the southern tip of the Central Asian flyway of migratory birds.
- This is a man-made, inland Tank and is perennial.
- Copper plate inscriptions from the 9th century mention Pasumkulam, Venchikulam, Nedumarthukulam, Perumkulam, Elemchikulam and Konadunkulam.

Aquaculture project

In News

Technology Development Board(TDB) (a statutory body under the DST) is funding its first ever 'Aquaculture' project using 'state of the art' Israeli technology for the production of Tilapia Fish".

Tilapia Fish

- Tilapia' (also called "aquatic chicken" due to its quick growth and low maintenance) is one of the most productive and internationally traded food fish in the world.
- It belongs to the family Cichlidae, native to Africa and the Middle East
- It can adapt to a wide variety of conditions and has omnivorous food habits
- It has also turned 'invasive' in some parts of India.
- Under the project, Tilapia will be grown from the imported parent broodstock 'Hermon' from Israel.
- Hermon is a hybrid of two selected strains of Tilapia, namely Oreochromis Niloticus (Male) and Oreochromis Aureus (Female), and shows:
- high growth rate
- resistance to low temperature
- all hybrid fry progeny of males only

Significance

- Tilapia' has emerged to be one of the most productive and internationally traded food fish in the world.
- The culture of tilapia has become commercially popular in many parts of the world and the fishery experts have dubbed the tilapia as "aquatic chicken" due to its quick growth and low maintenance cultivation.

PMMSY

- PMMSY is a flagship scheme for focused and sustainable development of the fisheries sector in the country as a part of the Aatmanirbhar Bharat Abhiyan.
- Adopt 'Cluster or Area-based Approaches' and create fisheries clusters through backward and forward linkages.
- Focus especially on employment generation activities such as seaweed and ornamental fish cultivation.
- Address critical gaps in fish production and productivity, quality, technology, post-harvest infrastructure and management, modernisation and strengthening of the value chain, traceability, establishing a robust fisheries management framework and fishers' welfare.
- Consolidate the achievements of the blue revolution and bring new interventions such as fishing vessel insurance, support for new/up-gradation of fishing vessels/boats, integrated aqua parks, e-trading/marketing, etc.
- The scheme targets to enhance fish production to 220 lakh metric tons by 2024-25, at an average annual growth rate of about 9%.
- The ambitious scheme also aims to double the export earnings to Rs.1,00,000 crore and generate about 55 lakhs direct and indirect employment opportunities in fisheries sector over a period of next five years.

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Geothermal Energy in Ladakh

In News

State-run explorer Oil and Natural Gas Corporation (ONGC) will be participating to generate electricity through Geothermal Energy at Puga, a remote valley located in Ladakh, off the road to Chumar on the de-facto border with China.

About the project

- It will be India's first geothermal energy project and also the world's highest at 14,000ft.
- ONGC has started drilling its first well for the project and encountered high-pressure steam at 100 degrees Celsius with a discharge rate of 100 tonne geothermal energy per hour, considered as a good sign for the project.

Puga valley

- Puga Valley is situated in the Changthang Valley in the south-eastern part of Ladakh, about 22 km away from the Salt Lake Valley.
- It is a region of great significance known for its natural beauty and geothermal activities.
- Puga is also visited for its hot sulphur spring.

Significance

- It will boost Ladakh's potential to emerge as one of the country's clean energy bowl by expanding the area's horizon beyond solar or wind power.
- The pilot plant provides power and heating needs of the nearby settlements of Tibetan pastoralist refugee settlements at Sumdo and nearby areas.
- A bigger plant will provide 24X7 supply for the far-flung settlements and the large defence establishment in the eastern sector, reducing their dependence on diesel for running generators.
- The plant can also play a vital role as a stabiliser for the 15-gigawatt solar/wind project being planned in the nearby Morey plains in the southwest.

GeoThermal Energy

- Geothermal energy is the heat from the earth. This heat is used for bathing, to heat buildings, and to generate electricity.
- The word geothermal comes from the Greek words geo (earth) and therme (heat), and geothermal energy is a renewable energy source because heat is continuously produced inside the earth.
- Hot water or steam reservoirs deep in the earth are accessed by drilling.
- Geothermal reservoirs located near the earth's surface, mostly located in the western U.S., Alaska, and Hawaii.
- The shallow ground near the Earth's surface that maintains a relatively constant temperature of 50-60°F.

White dwarf

In News

As per the recent study, a bright explosion born out of the cosmic dance of a white dwarf and its companion star resulting in thick dust around an imploding novae could unravel mysteries behind the start of life.

Novae

- A nova is an astronomical event in which a strong explosion occurs temporarily, thus increasing the brightness and then slowly darkening over weeks or months.
- It generally occurs in a binary system (two stars orbiting around a common centre of mass) consisting of a white dwarf and a main sequence star.
- Space dust out of collisions may have propelled organisms over enormous distances between planets to start life on a planet.
- It has been observed only in a few novae within 30 to 100 days after an outburst, as compared to interstellar dust, which typically takes a few thousand years to form and hence provided opportunity to study the dust formation process in novae.

Night Sky Sanctuary

In News

- In a unique and first-of-its-kind initiative, the Department of Science & Technology (DST), Govt of India, has undertaken to set up India's first-ever "Night Sky Sanctuary" in Ladakh which will be completed within next three months.
- The government also plans to set up a regional branch of the Central Leather Research Institute headquartered in Chennai as it believes Ladakh's rich biodiversity including the famous pashmina goats can contribute to the field of leather research.

Dark Sky Reserve

- The proposed Dark Sky Reserve will be located at Hanle in Ladakh as a part of Changthang Wildlife Sanctuary.
- It will boost Astro tourism in India and will be one of the world's highest-located sites for optical, infra-red, and gamma-ray telescopes.
- A tripartite MoU was signed recently among the the UT administration, Ladakh Autonomous Hill Development Council (LAHDC) Leh and the Indian Institute of Astrophysics (IIA) for launching the Dark Space Reserve.
- Hanle is best suited for the project as it is located in Ladakh's cold desert region, away from any form of human disturbance and clear sky conditions and dry weather conditions exist throughout the year.

Significance

- The Council of Scientific and Industrial Research (CSIR) under the aegis of Union Ministry of Science & Technology is promoting "**Leh Berry**" which is an exclusive food product of the cold desert and also a means of wide-ranging entrepreneurship as well as self-livelihood.
- Commercial cultivation of three medicinal plants will begin this spring season at the height of above 15,000 feet.
- This also includes "Sanjeevani Booty", locally known as "Sola" which has a very high life saving and therapeutic properties.

National Conference on Sustainable Coastal Management in India

In News

Union Minister of Environment, Forest and Climate Change, Shri Bhupender Yadav inaugurated the first National Conference on Sustainable Coastal Management in India in Bhubaneswar.

About the conference

- This conference is being organized by the Green Climate Fund supported project Enhancing Climate Resilience of India's Coastal Communities.
- The objective of the conference is to bring officials from all 13 coastal states of India under one roof to focus on the three interrelated themes of coastal and marine biodiversity, climate mitigation and adaptation and coastal pollution.
- This endeavour is aimed at creating a vibrant network of stakeholders who will continue to engage with each other on the topics but also on cross-cutting themes such as coastal governance, technologies and innovation as well as domestic and international finance.
- Sustainable coastal management is recognised as need of the hour. Data-driven policies and management frameworks, participatory conservation models, and convergence between stakeholders are the key pillars for effective coastal management.
- A programme on Enhancing Climate Resilience of Coastal Communities is being implemented in partnership with UNDP in the states of Odisha, Andhra Pradesh and Tamil Nadu.
- Supported by the Green Climate Fund (GCF), the initiative is integrating ecosystem and community-based approaches to adaptation into coastal management and planning.

Puneet Sagar Abhiyan

In News

National Cadet Corps (NCC) and United Nations Environment Programme (UNEP) signed a Memorandum of Understanding (MoU) to tackle the issue of plastic pollution and achieve the universal goal of clean water bodies through '**Puneet Sagar Abhiyan**' and '**Tide Turners Plastic Challenge programme**'.

About Puneet Sagar Abhiyan

- The NCC had, on December 01, 2021, launched 'Puneet Sagar Abhiyan', a nationwide flagship campaign, initially for one month, to clean sea shores of plastic & other waste material,
- It is among the slew of initiatives taken by the Government to realise the vision of Prime Minister Shri Narendra Modi, which he referred to as 'Panchamrit' during the 26th United Nations Climate Change conference.
- Since the launch of 'Puneet Sagar Abhiyan', over 100 tonnes of plastic waste have been collected from nearly 1,900 locations by more than 12 lakh NCC cadets, alumni and volunteers, impacting 1.5 crore people.
- Of the approximately 100 tonnes of collected plastic waste, more than 60 tonnes have been handed over for recycling.
- Panchamrit -
- India will take its non-fossil energy capacity to 500 GW by 2030.
- India will meet 50 per cent of its energy requirements from renewable energy by 2030.
- India will reduce the total projected carbon emissions by one billion tonnes from now till 2030.
- By 2030, India will reduce the carbon intensity of its economy by more than 45 per cent.
- By 2070, India will achieve the target of Net Zero.

Significance

- The aim of the MoU between NCC and UNEP is to synergise and collate efforts towards engaging youth for promoting clean water bodies.
- The objective is to engage in capacity building and awareness on environmental sustainability through information sharing and training initiatives; promote opportunities for NCC cadets to participate in

appropriate national & international platforms related to environment and climate change and engage in and develop joint initiatives of mutual intent pertaining to environment and climate change.

• The MoU, to remain in force for a period of three years, aims at consolidating, developing and detailing their cooperation and effectiveness to achieve the common objectives in the field of environment.

Project Management Unit (PMU)

In News

The Union Minister of Agriculture and Family Welfare, Shri Narendra Singh Tomar launched the Project Management Unit (PMU) on Public-Private Partnership (PPP) in Agriculture in New Delhi recently.

About PMU

- The primary objective of this PPP initiative is to enhance the income of small farmers by creating additional value, from provisioning of quality inputs, technology extension to market linkages, and value addition.
- PPP initiatives are also expected to lead to modernizing agriculture practices, promoting research in climate resilient crops, developing agriculture and rural infrastructure, and increasing agricultural exports.
- A particular objective is to assist the States to unlock the full potential of their respective agro-climatic regions, and wide variety of agri-produce and help producers to integrate better with domestic and export markets.

Significance

- Agriculture investments and increasing gross capital formation in agriculture are key to modernizing the Agriculture sector.
- Combining public investments, in the form of various Central Government and State Government initiatives in agriculture along with the Private sector investment, can be a force multiplier for the agriculture sector.
- The Government is keen to incentivize PPP initiatives in the Agriculture sector to improve yields, reduce losses and enhance farmer incomes.
- PPP initiatives will crowd in private capital in agriculture, leverage public investment and align the Central and State Governments, the Private sector, and farmers in a shared vision of dynamic and value-added growth in the sector.

India's longest rubber dam on Falgu River

In News

Bihar Chief Minister, Nitish Kumar has inaugurated India's longest rubber dam 'Gayaji Dam' on the Falgu River in Gaya.

About the dam

- The dam has been built at an estimated cost of **Rs 324 crore.**
- Experts from IIT (Roorkee) were involved with the project.
- The rubber dam on the Falgu River, which is a vast stretch of sand dunes, it will draw more pilgrims and change the landscape.
- The dam, aimed at providing uninterrupted water supply to Vishnupad Temple in Gaya throughout the year.
- The dam is 411 meters long, 95.5 meters wide and 3 meters high. Apart from the rubber dam, the banks along the Falgu River have also been developed and a steel bridge has been built for pilgrims to visit Sita Kund.
- The Falgu river has water only in the monsoon season and remains dry for the remaining period.

- The dam will ensure water storage in the river throughout the year, helping the pilgrims who visit the place for Pind Daan (ritual to offer homage to departed souls).
- The height of Bar Dam has been kept at three meters. It will hold water up to three meters. If there is more water than this, the water from the top of the rubber dam will flow downwards i.e. in the north direction. In special circumstances, arrangements have been made to release water from the rubber dam.
- It is bulletproof and experts claim that it will not deteriorate for 100 years

Falgu River

- Falgu River originates in the Palamu district of Jharkhand.
- This river passes through the holy city of Gaya in Bihar and has significance in Hindu and Buddhist religions.
- The length of the Falgu river in Bihar is about 135 km. This river starts near Gaya at the confluence of Lilajan River and Mohana River and finally joins Punpun River.

PM launches Mission LiFE at Statue of Unity in Ekta Nagar

In News

France, the UK, Argentina, Georgia, Guyana, Madagascar, Mauritius, Estonia, Nepal and the Maldives sent congratulatory messages to Prime Minister Narendra Modi on the occasion of the launch of the Mission LiFE movement (Lifestyle for the Environment).

About Life Mission

- **Mission LiFe** is expected to be an India-led global mass movement to ensure individual and collective action to protect and preserve the environment.
- It will be India's signature initiative at the United Nations and other international platforms for showcasing climate action and early achievement of the Sustainable Development Goals.
- Mission LiFE makes the fight against climate change democratic, in which everyone can contribute within their capacity.
- Mission LiFE inspires us to do all that can be done in our everyday life to protect the environment.
- Mission LiFE believes that the environment can be protected by making changes in our lifestyle.
- Mission LiFE emboldens the spirit of the P3 model i.e. Pro Planet People.
- Mission Life, unites the people of the earth as pro planet people, uniting them all in their thoughts.
- It functions on the basic principles of 'Lifestyle of the planet, for the planet and by the planet'.
- Mission LiFE aims at following a three-pronged strategy for changing our collective approach towards sustainability.
- First is by nudging individuals to practise simple yet effective environment-friendly actions in their daily lives (demand);
- second is by enabling industries and markets to respond swiftly to the changing demand (supply) and;
- third is to influence government and industrial policy to support both sustainable consumption and production (policy).

UP's Ranipur tiger reserve becomes 53rd tiger reserve of India

In News

Uttar Pradesh's Ranipur Tiger Reserve has become the 53rd tiger reserve of India.

Ranipur Tiger Reserve

• Apart from Ranipur, Uttar Pradesh has three tiger reserves, Dudhwa, Pilibhit, and Amangarh.

- Uttar Pradesh government approved the development of the first tiger reserve in the Bundelkhand region of the state on 28th September 2022.
- The UP government also approved the notification of the Ranipur Wildlife Protection Act 1973.
- Ranipur Tiger Reserve is covered by northern tropical dry deciduous forests and is home to mammals like megafauna tiger, leopard, bear, spotted deer, sambhar, and chinkara among others.
- According to the state government, the establishment of the Tiger Reserve in Ranipur will lead to the opening up of eco-tourism in the area and create immense employment opportunities.

7th edition of India Water Impact Summit Concludes

In News

The 7th edition of the India Water Impact Summit concluded recently after 3 days of fruitful deliberations on important aspects of water conservation and river rejuvenation, with special emphasis on revival of small rivers for the protection of large basins.

Key outcomes of the summit

- **Theme**: Restoration and Conservation of Small Rivers in a Large Basin with emphasis on the 5Ps'- People, Policy, Plan, Programme and Project.
- Organized by- National Mission for Clean Ganga (NMCG) (a registered society) along with Centre for Ganga River Basin Management and Studies (c-Ganga) (established at IIT Kanpur with excellence in data collection on the Ganga River Basin)
- Experts from water, environment and administrative sectors unanimously consented to an urgent need of forming a National River Framework in the country, which would determine the parameters for monitoring river health, process and responsibility.
- Representatives of European Union, Norway, Germany and Slovenia participated in the discussion on the international track at the summit.
- In the Constitution, water is a matter included in Entry 17 of List-II i.e. State List

Project Lion @ 47: Vision for Amrutkal

In News

Union Minister of State for Environment Ashwini Kumar Choubey told that, "As per the document titled '**Project** Lion: Lion @47 vision for Amrutkal' the Barda Wildlife Sanctuary, Gujarat, has been identified and assessed by the Wildlife Institute of India as a potential site where a population of 40 adult and sub-adult lions can be accommodated in the larger landscape of Barda-Alech hills.

Project Lion

- To secure & restore lions' habitats for managing its growing population;
- scale up livelihood generation and participation of local communities;
- become a global hub of knowledge on big cat disease diagnostics and treatment and
- create inclusive biodiversity conservation through project lion initiative.
- Project Lion envisages landscape ecology based conservation of the Asiatic Lion in Gujarat by integrating conservation and eco-development.
- The Project is being implemented in the Gir landscape in Gujarat which is the last home of the Asiatic lion.
- Financial assistance of Rs. 124.58lakhs have been provided to State of Gujarat for conservation of wildlife including Asiatic Lions under the Centrally Sponsored Scheme (CSS)- 'Development of Wildlife Habitats' during last three years.

• Further, revalidation of Rs 1641.42 lakhs of grants released during 2018-19 under the Asiatic Lion Conservation project has also been done during the period.

Air Quality Monitoring System (AI-AQMS v1.0)

In News

Meity has launched the Technology for Air Quality Monitoring System (AI-AQMS v1.0).

About AI-AQMS v1.0

The Centre for Development of Advanced Computing (C-DAC), Kolkata in collaboration with TeXMIN, ISM, Dhanbad under the 'National programme on Electronics and ICT applications in Agriculture and Environment (AgriEnIcs)' has developed a outdoor air quality monitoring station to monitor environmental pollutants which includes parameters like PM 1.0, PM 2.5, PM 10.0, SO₂, NO₂, CO, O₂, ambient temperature, relative humidity etc., for continuous air quality analysis of the environment.

About NAMP

- The National Air Quality Monitoring Program (NAMP), administered by the Central Pollution Control Board, is a nationwide program for monitoring ambient air quality.
- The network has 804 active stations that serve 344 cities and towns in 28 states and 6 union territories.
- The National Air Quality Monitoring Programme's goal is to identify current conditions and trends in ambient air quality as well as any deviations from the established requirements.

International & Relation

The Indo US Trade and Commerce

In News

The Department of Agriculture and farmer welfare (DAC&FW) and the US Department of Agriculture signed an agreement for implementing the "2 Vs 2" Agri market access issues.

About the framework agreement:

- The framework agreement on 2 Vs 2 Agri market access would emphasize issues related to inspection and transfer for Indian mangoes along with the market access for pomegranate arils from India and market access for US cherries and alfalfa hay.
- This will promote the export of Indian agri-products easing access to the US market.
- It has been notified by the Department of Animal Husbandry and Dairying that it is ready to open up the market for US pork.
- This framework agreement will offer a possibility to restore India's trade benefits under the Generalized System of Preferences (GSP) of the US. The same issue was raised in the US- India Trade Policy Forum.

Joint Development Agreement between India and Africa

In News

A joint development agreement was signed between Power Grid Corporation of India Limited and Africa50, the pan-African infrastructure investment platform to continue to develop the Kenya Transmission Project through Public Private Partnership.

About the Project:

- The project involves the development, financing, construction and operation of transmission lines.
- Followed by its completion, the project will be Kenya's first Independent Power Transmission and will set a reference point in Africa as the first financing of transmission lines on a PPP basis.
- The technical operational support would be provided by POWERGRID which is one of the world's leading electric transmission utility companies.
- Africa50 will assist the project by bringing its expertise on development and finance bridging the gap between the Kenyan government and private investors.

About Africa50

It is an infrastructure investment platform that contributes to Africa's economic growth by developing and investing in bankable infrastructure projects, catalysing public sector capital and mobilising private sector funding.

Global Risks Report 2022

In News

Recently, the Global Risks Report 2022, an annual report, was released by the World Economic Forum. It tracks global risk perceptions among risk experts and world leaders in business, government, and civil society.

Findings of the report

- The societal and environmental risks have worsened the most since the start of the pandemic.
- "Social cohesion erosion", "livelihood crises" and "mental health deterioration" are three of the five risks seen as the most concerning threats to the world in the next two years.
- Apart from this, it has significantly contributed to "debt crises", "cybersecurity failures", "digital inequality" and "backlash against science".
- In the longer-term horizon, geopolitical and technological risks are of concern too—including "geoeconomic confrontations", "geopolitical resource contestation" and "cybersecurity failure".
- Artificial intelligence, space exploitation, cross-border cyberattacks and misinformation and migration and refugees were rated as the top areas of international concerns.
- Growing insecurity in the forms of economic hardship, worsening impacts of climate change and political persecution will force millions to leave their homes in search of a better future.
- The prospect of 70,000 satellite launches in coming decades, in addition to space tourism, raises risks of collisions and increasing debris in space, amid a lack of regulation.

Other reports by WEF

- Energy Transition Index.
- Global Competitiveness Report.
- Global IT Report
- WEF along with INSEAD, and Cornell University publishes this report.
- Global Gender Gap Report.
- Global Risk Report.
- Global Travel and Tourism Report.

India & Nepal

In News

Recently, the Union Cabinet has cleared a plan to build a new bridge connecting India and Nepal over the Mahakali river and link Dharchula in Uttarakhand with Nepal's Dharchula.

About Bridge

- The bridge will be completed within three years. It will strengthen the relationship between the two countries.
- India and Nepal share unique ties of friendship and cooperation.
- The construction of the bridge will help people living in Dharchula in Uttarakhand and in the territory of Nepal.

Mahakali River

- It is also known as Sharda river or Kali Ganga in Uttarakhand.
- It joins Ghagra river in Uttar Pradesh, which is a tributary of Ganga.
- River Projects: Tanakpur hydro-electric project, Chameliya hydro-electric project, Sharda Barrage.

Homeland Security Dialogue

In News

Recently, a Homeland Security Dialogue was held between the officials of India and US.

About Dialogue

- The Indo-US homeland security dialogue was launched in 2010 as the mechanism to a sequel to the signing of the India-US counter-terrorism initiative.
- First Homeland Security Dialogue was held in May 2011.
- The latest virtual meeting came after in March 2021, the US President Joe Biden administration had announced the re-establishment of the Homeland Security Dialogue which was discontinued by former US President Donald Trump's administration.
- There are six sub-groups formed under the Indo-US homeland security dialogue which cover the areas of:
- Illicit finance, Financial fraud and counterfeiting.
- Cyber information.
- Megacity policing and sharing of information among federal, state and local partners.
- Global supply chain, transportation, port, border and maritime security.
- Capacity building.
- Technology upgradation.

United Nations Security Council

In News

The United Nation Security Council (UNSC) got five new non permanent members (Albania, Brazil, Gabon, Ghana and the United Arab Emirates).

New Members

- Estonia, Niger, St Vincent and the Grenadines, Tunisia and Vietnam finished their terms recently.
- Albania is joining for the first time while Brazil is taking an 11th turn. Gabon and Ghana each have been on the council three times before and the UAE once.
- More than 50 of the UN's 193 member countries have never been elected to the council since its formation.

About UNSC

- The Security Council was established by the UN Charter in 1945. It is one of the six principal organs of the United Nations.
- The other 5 organs of the United Nations are—the General Assembly (UNGA), the Trusteeship Council, the Economic and Social Council, the International Court of Justice, and the Secretariat.
- Its primary responsibility is to work to maintain international peace and security.

- The council is headquartered at NewYork.
- The council has 15 members: the five permanent members and ten non-permanent members elected for two-year terms.
- India, for the eighth time, has entered the UNSC as a non-permanent member last year (2021) and will stay on the council for two years i.e 2021-22.
- Each year, the General Assembly elects five non-permanent members (out of ten in total) for a two-year term. The ten non-permanent seats are distributed on a regional basis.
- The council's presidency is a capacity that rotates every month among its 15 members.

China New Border Law

In News

China's new law on land borders came into effect from 1st January, 2022. It comes at a time when border standoff in eastern Ladakh remains unresolved and several places in Arunachal Pradesh have been renamed recently by China as part of its claim on the Indian state.

About New Law

- The new law lays down that the People's Republic of China (PRC) shall set up boundary markers on all its land borders to clearly mark the border.
- The law prohibits any party from indulging in any activity in the border area which would "endanger national security or affect China's friendly relations with neighbouring countries".
- Even citizens and local organisations are mandated to protect and defend the border infrastructure.
- Finally, the law provides for the border to be sealed in the event of a war, armed conflict, incidents which threaten the security of border residents such as biological and chemical accidents, natural disasters, and public health incidents.
- The law also stipulates that PRC should abide by the treaties on land borders that it has signed with the respective countries and all border issues are to be settled through negotiations.

China Border Disputes

- China has a 22,100-kilometer land border with 14 countries.
- It has resolved the boundary disputes with 12 neighbours.
- India and Bhutan are the two countries with which China is yet to finalise the border agreements.

Dalai Lama

In News

Recently, the last surviving member of a small troop of Indian soldiers who escorted the Dalai Lama as he fled from Tibet in 1959 has died.

Dalai Lama

- The Dalai Lama belongs to the Gelugpa tradition of Tibetan Buddhism, which is the largest and most influential tradition in Tibet.
- There have been only 14 Dalai Lamas in the history of Tibetan Buddhism, and the first and second Dalai Lamas were given the title posthumously.
- The 14th and current Dalai Lama is Tenzin Gyatso.
- The Dalai Lamas are believed to be manifestations of Avalokiteshvara or Chenrezig, the Bodhisattva of Compassion and the patron saint of Tibet.
- Bodhisattvas are realized beings inspired by a wish to attain Buddhahood for the benefit of all sentient beings, who have vowed to be reborn in the world to help humanity.

Process to Choose Dalai Lama:

- Following the Buddhist belief in the principle of reincarnation, the current Dalai Lama is believed by Buddhists to be able to choose the body into which he is reincarnated.
- That person, when found, will then become the next Dalai Lama.
- According to Buddhist scholars it is the responsibility of the High Lamas of the Gelugpa tradition and the Tibetan government to seek out and find the next Dalai Lama following the death of the incumbent.
- If more than one candidate is identified, the true successor is found by officials and monks drawing lots in a public ceremony.
- Once identified, the successful candidate and his family are taken to Lhasa (or Dharamsala) where the child studies the Buddhist scriptures in order to prepare for spiritual leadership.
- This process can take several years: it took four years to find the 14th (current) Dalai Lama.

China is building a new bridge on Pangong Tso

In News

Recently, it was found that China is building a new bridge on Pangong Tso which will provide an additional axis to deploy troops faster between the north and south banks of the lake, and closer to the LAC (Line of Actual Control).

About Bridge

- The bridge is being constructed more than 20 km east of Finger 8 on the lake's north bank India says Finger 8 denotes the LAC.
- The Lake is overlooked by the Finger Area a set of eight cliffs extending out of the Sirijap range (on the northern bank of Lake).
- Pangong Tso, an endorheic lake, is 135 km long, of which more than two-thirds is under Chinese control.
- The bridge site is just east of Khurnak Fort in Rutog county where the PLA (People's Liberation Army) has frontier bases.
- Historically a part of India, Khurnak Fort has been under Chinese control since 1958.
- From Khurnak Fort, the LAC is considerably west, with India claiming it at Finger 8 and China claiming it at Finger 4.

India and France S&T Cooperation

In News

India and France signed an MoU to expand their science and technology cooperation with the major objective of advancement in human health.

Highlights of the MoU

- The MoU on science and technology cooperation has been signed between CSIR and Institut Pasteur. Institut Pasteur is a french non-profit private foundation that deals with the study of biology, micro-organisms, diseases and vaccines.
- The agreement aims to enhance collaboration between India and France in the area of health research and in the study of infectious diseases.
- Both the countries will jointly work for providing effective and affordable healthcare solutions not only for the people of India and France but also for the global good.
- This MoU includes provisions that are intended to develop potential scientific and technological cooperation and networking between scientists from CSIR and Institute Pasteur.

I4F Programme

In News

The 8th Governing body meeting was held virtually and involved the experts from India and Israel to widen the scope of the India-Israel Industrial R&D & Technological Innovation Fund (I4F).

About I4F programme

- The India- Israel collaborative ecosystem has been broadened with the approval of 3 joint R&D giving new directions to boost research and innovation.
- The projects include centrally monitored IoT nanosensors for molecular diagnostics in healthcare and screening applications, mosquito control biological solutions and IoT enabled satellite communication for real-time collection of agriculture and environment data across the country.
- The experts recommended focusing on Partnership Development Activities that result in the increase of more business activities between Indian and Israeli companies and startups through online events.
- The I4F fund is a cooperation between the Department of Science and Technology, the Government of India and the Israel Innovation Authority, Government of Israel.
- The Global Innovation & Technology Alliance (GITA) has been appointed to implement the I4F programme in India whereas Israel Innovation Authority is the implementing agency in Israel.

India-Central Asia Virtual Summit

In News

The first India-Central Asia summit was hosted by the Prime Minister of India in virtual format.

About the Summit

- The Summit was attended by Presidents of the Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan, Turkmenistan and Republic of Uzbekistan.
- Central Asia is a crucial region for the promotion of India's interests especially in terms of trade and connectivity.
- The leaders conveyed their strong support for a peaceful, secure and stable Afghanistan with a representative and inclusive government. This comes in favour of India's interest concerning its national security.
- India agreed to extend humanitarian assistance to the Afghan people.
- In a historic decision, the leaders agreed to institutionalize the Summit mechanism by holding it every 2 years.
- A secretariat will be set up soon in New Delhi for India-Central Asia taking the relationship further.
- Efforts have been made from both sides to embolden the cultural ties and enhance people to people contact.

BRICS STI Steering Committee

In News

The 15th meeting of the BRICS Science Technology Innovation Steering Committee was organized and attended by representatives from BRICS scientific ministries.

About the Committee

- India will host a series of five events in 2022 namely:
 - o BRICS startups forum meeting
 - \circ $\,$ Working groups meeting on Energy, Biotechnology and Biomedicine
 - ICT and High-Performance Computing

- o Science, Technology, Innovation, and Entrepreneurship Partnership (STIEP) Working Group Meeting
- Launch of BRICS innovation launchpad as a microsite (Knowledge hub)
- A number of sectoral events and meetings have been planned along with Ministerial Summits.

India-Mauritius Developmental Projects

In News

The Governments of India and Mauritius jointly inaugurated the social housing units project taking the developmental partnership to the next level.

About the project

- A state of the art Civil Service College along with a 8 MW(megawatt) solar photovoltaic farm , both supported by India, have been established as a part of the developmental partnership.
- The need to expand the learnings of Mission Karmayogi has been emphasized in order to revamp civil services that aim to meet the demands of changing needs of the nation.
- The establishment of the solar farm reflects India's commitment towards adopting renewable energy with its landmark vision of ISA.
- Other developmental projects that were facilitated by India include the Metro Express Project, Supreme Court building, ENT hospital and supply of digital tablets to primary school children.

India-UAE Virtual Summit

In News

In a historic move, India and UAE signed the futuristic Comprehensive Economic Partnership (CEPA) during a virtual summit.

The India- UAE trade agreement:

- The free trade agreement aims to boost the trade relations between the two countries to US\$ 100 billion in the next five years.
- This act has been iconic in strengthening the bond between the two friends of history.
- The joint vision statement emphasised on enhanced maritime cooperation, collaborative efforts to fight terrorism and measures to boost trade and investments.
- The signing of CEPA will result in several benefits like promoting businesses, enhancing market access and reduced tariffs.
- Two MoUs have been signed including a MoU between APEDA and DP World and Al Dahra has been signed to set up a food security corridor and MoU between India's Gift city and Abu Dhabi Global Market on cooperation in financial projects and services. This will be a welcoming move to enhance resilience and reliability of food supply chains.
- The two countries also agreed to work together on logistics and services, pharmaceuticals, medical devices, agriculture, agri-tech and steel and aluminium.
- According to CEPA, an extension of zero duty will be given to several sectors comprising 9% of India's exports within five to ten years.

Falkland Islands

In News

Recently, Britain rejected a statement from China that affirmed it's support for Argentina's claim to the Falkland Islands. Earlier, China and Argentina issued a joint statement that said China "reaffirms its support for Argentina's demand for the full exercise of sovereignty over the Malvinas Islands (Falkland Islands)," using the Argentine name for the territory.

About Islands

- Falkland Islands, also called Malvinas Islands or Spanish Islas Malvinas, internally self-governing overseas territory of the United Kingdom in the South Atlantic Ocean.
- It lies about 300 miles northeast of the southern tip of South America and a similar distance east of the Strait of Magellan.
- The capital and major town is Stanley, on East Falkland, there are also several scattered small settlements as well as a Royal Air Force base that is located at Mount Pleasant.
- The two main islands, East Falkland and West Falkland, and about 200 smaller islands. The government of the Falkland Islands also administers the British overseas territory of South Georgia and the South Sandwich Islands, including the Shag and Clerke rocks.

India's Arctic Policy

In News

Union Minister of State (Independent Charge) Science & Technology released India's Arctic policy titled 'India and the Arctic: building a partnership for sustainable development' today from the Ministry of Earth Sciences Headquarters in New Delhi.

Features of the policy

- India's Arctic policy titled **'India and the Arctic: building a partnership for sustainable development**' lays down six pillars: strengthening India's scientific research and cooperation, climate and environmental protection, economic and human development, transportation and connectivity, governance and international cooperation, and national capacity building in the Arctic region.
- India's Arctic policy would play an essential role in preparing the country for a future where humankind's biggest challenges, such as climate change, can be addressed through collective will and effort.
- India's Arctic policy shall be implemented through an action plan, and an effective governance and review mechanism involving the inter-ministerial Empowered Arctic Policy Group.
- India's engagement with the Arctic dates back to a century when 'Svalbard Treaty' was signed in February 1920 in Paris and, today India is undertaking several scientific studies and research in the Arctic region.
- Indian researchers are monitoring arctic glaciers for their mass balance and comparing them with glaciers in the Himalayan region.
- India has also been actively involved in studies related to the Arctic oceanography, atmosphere, pollution and microbiology.
- Over twenty-five Institutes and Universities are currently involved in Arctic research in India.
- In 2014 and 2016, India's first multi-sensor moored observatory in Kongsfjorden and the northernmost atmospheric laboratory in Gruvebadet, Ny Alesund, were launched in the Arctic region.
- Until 2022, India has successfully conducted thirteen expeditions to the Arctic.

Role of India in Arctic Ocean

- India has a significant stake in the Arctic.
- It is one of thirteen nations holding Observer status in the Arctic Council, a high-level intergovernmental forum that addresses issues faced by the Arctic governments and the indigenous people of the Arctic.
- India's engagement with the Arctic region has been consistent and multidimensional.
- The country maintains that all human activity should be sustainable, responsible, transparent, and based on respect for international laws.

India-Bangladesh co-produced biopic on 'Bangabandhu'

In News

- Renowned director Shyam Benegal has released the poster of the film *Mujib The Making of a Nation,* a biopic on Sheikh Mujibur Rahman, the father of the nation of Bangladesh.
- The film on 'Bangabandhu' is being made under an Audio Visual Co-Production Agreement between the Republic of India and the People's Republic of Bangladesh.
- The legendary filmmaker released the poster, at National Film Development Corporation (NFDC), Mumbai today, 17th March 2022, on the occasion of the 102nd birth anniversary of Sheikh Mujibur Rahman.

Sheikh Mujibur Rahman - Father of the nation of Bangladesh

- Mujib, provided the political leadership for the independence of Bangladesh in 1971.
- At the early stage of Mujib's political career, he met Mahatma Gandhi who was a great source of inspiration for him to empower the masses, an inspiration which remained throughout his life.
- Mujib was born in a prestigious Muslim family and grew up in a religious and harmonious atmosphere.
- He was very kind to the poor and was empathetic towards them. He admired Mr. Huseyn Suhrawardy.
- He struggled against the disparity and deprivation between West Pakistan and East Pakistan and against the Pakistani Military rule.
- He was imprisoned for about 11 years in the period 1947 to 1971.
- He strived and achieved the formation of an independent and sovereign state "Bangladesh".
- That's why Mujib is known as the Father of the Nation of Bangladesh, as 'Bangabandhu'.
- He was an iconic personality. His speeches and courage changed the course of history of Bangladesh.

Cast & Crew of the Film Mujib – The Making of a Nation:

- Mr. Arifin Shuvoo, a Bangladeshi film actor and popular television personality plays the role of Sheikh Mujibur Rahman.
- The star cast includes Ms. Nusrat Imrose Tisha, Mr. Fazlur Rahman Babu, Mr. Chanchal Chowdhury and Ms. Nusraat Faria.
- The film is written by Mr Atul Tiwari and Ms. Shama Zaidi.

About Bangladesh Film Development Corporation (BFDC)

- The organization was founded in 1959 as the East Pakistan Film Development Corporation which was changed to Bangladesh Film Development Corporation after Bangladesh achieved independence in 1971.
- On 3 April of every year, the National Film Day of Bangladesh is observed.
- The day is organized and celebrated by the corporation.
- The day marks the occasion when Sheikh Mujibur Rahman, then Minister of Industries and Commerce of East Pakistan introduced the bill to formulate the East Pakistan Film development corporation.

2nd India Australia Virtual Summit

In News

Prime Minister Shri Narendra Modi and Prime Minister of Australia Hon. Scott Morrison held the 2nd India-Australia Virtual Summit during which they reviewed the multi-faceted relationship between the two countries and exchanged views on regional and global developments.

Details

- Prime Minister Modi thanked Hon. Scott Morrison for the special gesture in returning 29 ancient artefacts to India.
- These artefacts comprise sculptures, paintings and photographs, across centuries, some dating back to the 9th-10th century, from different parts of India
- The artefacts include 12th century Chola bronzes, 11th-12th century Jain sculptures from Rajasthan, 12th-13th century sandstone Goddess Mahisasuramardini from Gujarat, 18th-19th century paintings and early gelatin silver photographs.
- A Joint Statement was issued on the occasion covering various aspects of the deepening Comprehensive Strategic Partnership.
- Both sides also agreed to establish annual summits between the Prime Ministers under the Comprehensive Strategic Partnership, thus adding a special dimension to the bilateral relationship.

Bucharest Nine

In News

The envoys to India of nine Eastern European countries called Bucharest Nine jointly wrote to acquaint the Indian public with the basic facts on the ground" about the "premeditated, unprovoked and unjustified Russian aggression in Ukraine".

About 89

- The "Bucharest Nine" is a group of nine NATO countries in Eastern Europe that became part of the US-led military alliance after the end of the Cold War.
- The B9 was founded on November 4, 2015, and takes its name from Bucharest, the capital of Romania.
- The group was created on the initiative of Klaus Iohannis, who has been President of Romania since 2014, and Andrzej Duda, who became President of Poland in August 2015.
- Members- Romania, Poland, Hungary, Bulgaria, the Czech Republic, Slovakia, and the three Baltic republics of Estonia, Latvia, and Lithuania.

BIMSTEC (Bay of Bengal Multi-Sectoral Technical and Economic Cooperation)

In News

- BIMSTEC (Bay of Bengal Multi-Sectoral Technical and Economic Cooperation) completes 25 years of the journey this year that began in Bangkok in June 1997.
- The fifth summit of BIMSTEC will be held in Colombo on March 30.

About BIMSTEC

- The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is a regional multilateral organisation.
- Its members lie in the littoral and adjacent areas of the Bay of Bengal constituting a contiguous regional unity.
- Out of the 7 members, Five are from South Asia Two are from Southeast Asia.
- BIMSTEC not only connects South and Southeast Asia, but also the ecologies of the Great Himalayas and the Bay of Bengal.
- It mainly aims to create an enabling environment for rapid economic development; accelerate social progress; and promote collaboration on matters of common interest in the region.

36th International Geological Congress to be held in New Delhi

In News

The 36th International Geological Congress (IGC), themed "Geosciences: The Basic Science for a Sustainable Future" will be held in Delhi during 20-22 March, 2022 on a virtual platform.

Details

- The 36th IGC is a joint endeavour of the Ministry of Mines, Ministry of Earth Sciences, Indian National Science Academy and the Science Academies of Bangladesh, Nepal and Sri Lanka.
- Described as the Olympics of Geosciences, the IGCs are held quadrennial, under the aegis of the International Union of Geological Congress (IUGS), the Scientific Sponsor of the IGCs.
- They draw participants to the tune of around 5000 7000 delegates from all over the world.
- The event would provide a unique platform for knowledge and experience sharing in the field of geosciences and professional networking.
- It would give first-hand information on latest technologies in mining, mineral exploration and management of water, mineral resource and environment.
- 36th IGC will be releasing three commemorative Postage Stamps on the occasion along with the First Day Cover.
- 58 years ago India had hosted the 22nd session of the IGC which was the first IGC on the Asian soil.

IGC

- India, leading its regional partners had bid in the 34th International Geological Congress at Brisbane in 2012 to host the 36th IGC in India in the year 2020.
- India won the bid. The present Congress originally scheduled to be held during 2-8 March, 2020 was postponed due to Covid Pandemic.

IndAus ECTA

In News

The India-Australia Economic Cooperation and Trade Agreement ("IndAus ECTA") was signed by Shri Piyush Goyal, Union Minister of Commerce and Industry, Consumer Affairs, Government of India and Mr. Dan Tehan, the Minister for Trade, Tourism and Investment, Government of Australia in a virtual ceremony.

About ECTA

- IndAus ECTA will further deepen the warm and close ties between the people of the two countries by expanding work, study and travel opportunities.
- It will send a powerful signal to our businesses that 'one of the biggest doors' is now open as two dynamic regional economies and like-minded democracies are working together for mutual benefit.
- It also delivers a clear message that democracies are working together and ensuring the security and resilience of supply chains.
- The IndAus ECTA, encompassing trade in goods and services, is a balanced and equitable trade agreement, which will further cement the already deep, close and strategic relations between the two countries and will significantly enhance the bilateral trade in goods and services, create new employment opportunities, raise living standards and improve the general welfare of the peoples of the two countries.

Indo-Finnish Virtual Network Centre on Quantum Computing

In News

India and Finland announced the decision to establish an Indo-Finnish Virtual Network Centre on Quantum Computing.

Details

- Indian side has identified three premier institutes viz **IIT Madras, IISER Pune and C-DAC Pune** for Virtual Network Centre on Quantum Computing.
- He said, the move comes in the wake of the decision taken in the last Joint Committee meeting held in November 2020 to initiate cooperation in new emerging areas like 5G; Quantum Computing and Sustainability by involving, Academia, Industries and Start-ups of the two countries.

India-Finland

- Finland's leading role in clean and green technologies can help India's drive towards sustainable development.
- India and Finland have strong bonding in Science, Technology and Innovation.
- India and Finland are consultative members of the Antarctic Treaty and have active stations in Antarctica.
- Finland would be hosting Antarctic Treaty Consultative Meeting (ATCM) in 2023 and India in 2024.
- India Meteorological Department (IMD) and Finnish Meteorological Institute has been cooperating in the field of Atmospheric Environment since 2014.
- Under this collaboration, Air Quality Forecasting models developed by FMI are customized for Indian region resulting in enhanced capability to forecast pollution events from microscale to regional scale so that pollution control authorities can take appropriate action.
- The Finnish Minister also invited India to explore the possibility of deeper cooperation in Finland's Biobank project to mediate high quality human samples to medical research to promote development of new products and services that promote public health.

India gets elected to the Intergovernmental Committee of UNESCO's 2003

In News

India has been elected as a member of the Intergovernmental Committee of UNESCO's 2003 Convention for the Safeguarding of the Intangible Cultural Heritage for the 2022-2026 cycle.

Intergovernmental Committee of UNESCO's 2003

- The Intergovernmental Committee of the 2003 Convention consists of 24 members and is elected in the General Assembly of the Convention according to the principles of equitable geographical representation and rotation.
- States Members to the Committee are elected for a term of four years.
- In the past, India has served two terms as a member of the Intergovernmental Committee of this Convention.
- One from 2006 to 2010 and the other from 2014 to 2018.
- For its 2022-2026 term, India has formulated a clear vision for the protection and promotion of the intangible cultural heritage of humanity.
- India ratified the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage in September 2005.

• India will focus upon include fostering community participation, strengthening international cooperation through intangible heritage, promoting academic research on intangible cultural heritage, and aligning the work of the Convention with the UN Sustainable Development Goals.

Functions

- Promoting the objectives of the Convention, providing guidance on best practices, and making recommendations on measures for the safeguarding of intangible cultural heritage.
- The Committee also examines requests submitted by States Parties for the inscription of intangible heritage on the Lists as well as proposals for programmes and projects.

Significance

- India will have the opportunity to closely monitor the implementation of the 2003 Convention.
- With the aim of strengthening the scope and impact of the Convention, India seeks to mobilize the capacity of different actors worldwide in order to effectively safeguard intangible heritage.

Varanasi Named First Cultural and Tourism Capital of SCO

In News

The holy city of Varanasi showcasing India's culture and traditions over the ages will be declared the first "Cultural and Tourism Capital" of the Shanghai Cooperation Organisation.

Significance

- It will become the cultural and tourism capital of the SCO for year 2022-23, as a part of SCO's new rotating initiative that seeks to promote people-to-people ties and tourism among member countries.
- Under the initiative, a city of cultural heritage from member states will be designated as cultural and tourism capital of SCO each year. Varanasi has become the first city to get the title.
- City will be selected from member country, which will take over the Presidency of SCO on rotational basis.
- Title will be given to cities in a bid to highlight its prominence.
- The new initiative of the organisation will be implemented after the Samarkand Summit 2022.

About SCO

- SCO is a Eurasian political, economic and security alliance.
- It is the successor of Shanghai Five, which was established in 1996.
- Formation of SCO was announced on June 15, 2001.
- Following this, the SCO Charter was inked on July 7, 2002 which came into effect on September 19, 2003. Membership of SCO has expanded to 8 countries now, viz., China, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Russia, India and Pakistan. India and Pakistan got membership on June 9, 2017.

EU's options in palm oil row with Malaysia and Indonesia

In News

European Union previously decided to phase out the import of unsustainable palm oil by 2030. Indonesia and Malaysia say the EU's palm oil restrictions are unfair, "discriminatory", and "crop apartheid" and challenged the EU in the WTO.

Details

- Indonesia and Malaysia, are the world's two largest palm oil producers, accounting for **90% of the global production**. However, most of it is produced on the plantation by clearing rainforests.
- **ReFuelEU initiative**: EU lawmakers adopted draft rules for the ReFuelEU initiative, which would mean 85% of all used aviation fuel would have to be "sustainable" by 2050.

Palm Dil

- It is an edible vegetable oil derived from the mesocarp (reddish pulp) of the fruit of the oil palms.
- Uses: As a cooking oil, in cosmetics, processed foods, cakes, chocolates, soaps, spreads, shampoo, and biofuel (the use of crude palm oil in making biodiesel is being branded as 'green diesel')
- It is inexpensive and produces more oil per hectare as compared to other alternatives such as soybean.
- India is the biggest importer of palm oil (almost 40% of its need)
- Government initiatives: National Mission on Edible Oil-Oil Palm (to boost India's domestic palm oil production by 3 times (till 2025-26)); Kharif Strategy 2021 for oilseeds; yellow revolution.

India-Singapore 8,100-km Submarine Cable System

In News

The Expert Appraisal Committee under the Ministry of Forests has recommended Coastal Regulatory Zone (CRZ) clearance for the 8,100-KM long Myanmar/Malaysia-India-Singapore Transit (MIST) Submarine Cable System connecting Mumbai and Chennai in India.

MIST

- MIST will directly connect Singapore, Malaysia, Myanmar, Thailand and India (Mumbai and Chennai) and deliver a design capacity of more than 216 terabits per second (Tbps).
- MIST cable system will provide secure reliable, robust and affordable telecom facilities in Asia.
- The main trunk route is from Tuas (Singapore) to Mumbai (India).
- A submarine cable system consists of a communication cable laid on the sea bed between cable landing stations (CLS) on the land to carry telecommunication signals across stretches of ocean. Submarine cable systems generally use optical fibre cables to carry international traffic.

5th Session of India-Egypt Joint Trade Committee

In News

5th Session of India-Egypt Joint Trade Committee and 5th India-Egypt Joint Business Council Meeting held recently in Cairo.

Details

- The 5th India-Egypt JTC took place in the backdrop of robust growth in trade and investment ties between India and Egypt.
- Bilateral trade reached a historic record high of USD 7.26 bn in FY 2021-22 which is an increase of 75% over FY 2020-21.
- Egypt is also one of the largest investment destinations for India in the region with existing Indian investment of USD 3.15 bn.
- Indian companies continue to execute several projects in Egypt.
- Joint Business Council (JBC) was jointly organized by FICCI and Egyptian Commercial Services.

• A large business delegation from India is currently visiting Egypt to participate in the JBC and to hold B2B interactions with their Egyptian counterparts.

Significance for India

- India has good relationships with Egypt as well as all the GCC states including Qatar. Such reconciliation and rapprochement between countries in the region could expand the opportunities for India.
- The Gulf region is one of the biggest markets for Indian goods and is the most important supplier of hydrocarbons to its economy. Peaceful relationships between these gas and oil reserve rich states are favourable to catering to the energy needs of India.
- The Gulf countries host more than millions of Indian migrants. They are mostly the workers who carry out development activities and they are the prime sources of remittances to India.

India contributes \$2.5 million to UN RWA for Palestine refugees

In News

India contributed USD 2.5 million to the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA).

UNRWA

- Established in 1949 with the mandate to provide assistance and protection to about 5.6 mn Palestinian refugees (in West Bank, Gaza Strip, Lebanon, Syria and Jordan)
- Funding: only through voluntary contributions
- India: As a part of the Link West Policy, India has de-hyphenated its relationship with Israel and Palestine in 2018 to treat both the countries as mutually independent and exclusive.
- India is a dedicated donor to UNRWA, having given USD 20 million in support of core UNRWA services to Palestine refugees across the Middle East since 2018.
- The agency was mandated to provide assistance and protection for about 5.6 million Palestinian refugees registered in the West Bank, Gaza Strip, and refugee camps in Lebanon, Syria, and Jordan.
- The UNRWA services for Palestinian refugees involve education, health care, relief, infrastructure, camp improvement, protection and microfinance.

20th Meeting of Prosecutors General of the Shanghai Cooperation Organisation (SCO

In News

- The 20th Meeting of Prosecutors General of the Shanghai Cooperation Organisation (SCO) Member States was held in Astana, Kazakhstan.
- A Protocol incorporating the deliberations of the 20th meeting of Prosecutors General of the SCO Member States was signed and adopted by the SCO Member States.

About the protocol

- To strengthen cooperation between the Prosecutor General's Offices of the SCO Member States with respect to the recovery of the proceeds of crime particularly in money laundering.
- To develop cooperation between the prosecutor's offices of the SCO member states at international institutions and forums on issues related to combating economic crimes like money laundering, search, seizure and recovery of the proceeds of crime from states.
- To use the forums of bilateral and multilateral gatherings to discuss about ways to strengthen the systems in place to combat economic crimes particularly money laundering.

- To continue the exchanging of information on domestic laws governing seach seizure and recovery of proceeds of crime. State's experiences in their prevention as well as references, methodological, information-analytical, scientific and other materials in the field of combating economic crimes.
- To develop cooperation between the Prosecutors General offices of the SCO member states in the field of training and advanced training of prosecutors and employees of other law enforcement agencies whose competence includes issues of combating economic crimes.
- To conduct and participate in bilateral and multilateral events on combating economic crimes, search, seizure and recovery of proceeds of crime from states.

About SCO

- SCO is a permanent intergovernmental international organization.
- It's a Eurasian political, economic and military organization aiming to maintain peace, security and stability in the region.
- It was created in 2001.
- The SCO Charter was signed in 2002, and entered into force in 2003.
- Prior to the creation of SCO in 2001, Kazakhstan, China, Kyrgyzstan, Russia and Tajikistan were members of the Shanghai Five.
- Shanghai Five (1996) emerged from a series of border demarcation and demilitarization talks which the four former Soviet republics held with China to ensure stability along the borders.
- Following the accession of Uzbekistan to the organization in 2001, the Shanghai Five was renamed the SCO.
- India and Pakistan became members in 2017.
- On 17th September, 2021, it was announced that Iran would become a full member of the SCO.

77th Session of the United Nations General Assembly

In News

- 77th Session of the United Nations General Assembly is going to take place in New York City, USA.
- The theme of the 77th UNGA is 'A Watershed Moment: Transformative Solutions to Interlocking Challenges'.

UNGA

- The United Nations General Assembly is one of the six principal organs of the United Nations.
- It serves as the main deliberative, policymaking, and representative organ of the UN. Chapter IV of the United Nations Charter provides for its powers, composition, functions, and procedures.
- External Affairs Minister S Jaishankar is going to participate in the 77th Session of the United Nations General Assembly.
- He will also host a Ministerial meeting of the G4 India, Brazil, Japan, and Germany as well as participate at the High Level Meeting of the L-69 Group on 'Reinvigorating Multilateralism and Achieving Comprehensive Reform of the UN Security Council'.
- The L-69 Group consists of developing countries from Asia, Africa, Latin America, Caribbean and Small Island Developing States, focused on reforms of the UN Security Council.

Functions of UNGA

- It is responsible for the approval of the UN budget, appointing the non-permanent members to the Security Council, appointing the UN secretary-general, receiving reports from other parts of the UN system, and making recommendations through resolutions.
- The UNGA is the only UN organ wherein all member states have equal representation.

- Each year, the General Assembly elects five non-permanent members of the Security Council for two-year terms, 18 members of the Economic and Social Council for three-year terms, and 14–18 members of the Human Rights Council for three-year terms.
- It also elects the President of the next General Assembly session.
- The UN General Assembly meets under its president or the UN secretary-general in annual sessions at the General Assembly Building, within the UN headquarters in New York City, USA.
- These meetings generally runs from September to part of January until all issues are addressed.
- It can also reconvene for special and emergency special sessions.
- The first session of the UNGA was convened in 1946 in London and included representatives of the 51 founding nations.

UNGA Members

- All 193 members of the United Nations are members of the UNGA. Holy See and Palestine are observer states.
- The United Nations General Assembly may also grant observer status to an international organization or entity.
- For example, International Solar Alliance has been granted Observer status at the UNGA.
- Such an observer status entitles the entity to participate in the work of the United Nations General Assembly, though with limitations.

Quad grouping

- Quad is a grouping of four democracies –the US, India, Australia and Japan.
- Being democratic nations and sharing common interest of free maritime trade and security, they find it suitable to join a common platform.
- Quad aims to ensure and support a "free, open and prosperous" Indo-Pacific region.
- The idea of Quad was first mooted by Japanese Prime Minister Shinzo Abe in 2007.

India-Africa Security Fellowship Programme

In News

The India-Africa Defence Dialogue (IADD) was held on the sidelines of DefExpo 2022 in Gandhinagar, Gujarat.

About Programme

- MP-IDSA, the knowledge partner for the IADD, will host the Fellowship Programme.
- The fellowship will give an opportunity to African scholars to pursue research on defence and security issues in India.
- The fellows would be attached with the MP-IDSA for a period of 1-3 months.
- A stipend would also be provided to the scholar.

LeadIT Summit 2022

In News

India and Sweden hosted the LeadIT Summit recently on the side-lines of COP27.

About the Summit

• The LeadIT (Leadership for Industry Transition) initiative focuses on low carbon transition of the hard to abate industrial sector.

- The Leadership Group for Industry Transition (LeadIT) gathers countries and companies that are committed to action to achieve the Paris Agreement.
- It was launched by the governments of Sweden and India at the UN Climate Action Summit in September 2019 and is supported by the World Economic Forum.
- LeadIT members subscribe to the notion that energy-intensive industry can and must progress on lowcarbon pathways, aiming to achieve net-zero carbon emissions.

Udaipur to Host First G20 Sherpa Meeting in India

In News

Udaipur is gearing up to host the first G20 Sherpa Meeting in India from 4 to 7 December. The meeting is aimed at fostering growth and building bonds amongst the member nations.

G20 Sherpa meeting

- The Sherpa Meeting of the G20 Summit is a preliminary meeting of the government representatives before the main G20 Summit.
- Here the representatives of the member nations hold discussions to firm up possible agreements.
- The final decisions are taken at the G20 summit by the Heads of States.
- Ahead of the main G20 Summit, the Sherpas meeting ensures that the time and resources required at the time of negotiations of the larger heads of state at the final summit are minimized.
- The G-20 Sherpa meeting will be presided by the Indian Sherpa Amitabh Kant.

G20 & India's Presidency

- Group of 20 or G-20 is a multilateral organisation of 19 countries and the European Union was set up in 1999.
- India has been a member of the G20 since its inception in 1999.
- India will be holding the G20 Presidency from 1 December 2022 and will convene the G20 Leaders' Summit in 2023 for the first time.
- India as a host nation will set the agenda of the G-20 summit meeting to be held in September 2023 in New Delhi.

About Udaipur

- It was founded in 1559 by Udai Singh II of the Sisodia clan of Rajput's. It is popularly known as the "City of Lakes". It has seven lakes surrounding the city.
- Fateh Sagar Lake,
- Lake Pichola.Udaisagar Lake,
- Jaisamand Lake (Dhebar Lake),
- Rajsamand Lake,
- Badi Lake (Jiyan Sagar),
- Doodh Talai (Milk Pond),
- Swaroop Sagar Lake (Khumaria Talab).

India to host virtual 'Voice of Global South Summit'

In News

India announced recently it will host a virtual summit of developing countries next week to learn about their developmental challenges and priorities.

Global South Summit

- The Voice of Global South Summit, with the theme "Unity of Voice, Unity of Purpose", will bring together countries of the Global South on a common platform .
- More than 120 countries are being invited to the summit, which will have two sessions for heads of State and government to be chaired by Prime Minister Narendra Modi.
- The Summit is India's endeavour to provide a common platform to deliberate on these concerns that affect the developing nations.
- India will work to ensure that the valuable inputs generated from partner countries in the Voice of Global South deliberations receive due cognizance globally.
- India's ongoing G20 Presidency provides a special and strong opportunity to channelise these inputs into the deliberation and discourse of the G20.

Schemes & Policies, Social Issues

Agri-Nutri Garden Week

In News

The Deendayal Antyodaya Yojana – National Rural Livelihood Mission (DAY-NRLM) has observed the Agri-Nutri Garden week.

About the Agri-Nutri garden week:

- This is an awareness campaign to set up the Agri-Nutri gardens in rural households.
- It is in line with a mission to fulfill the nutritional needs of rural people along with income generation.
- This initiative will ensure strengthening of the rural economy and mitigate the issue of malnutrition that is prevalent in rural areas.

Multi-dimensional adventure sports expedition

In news

Recently, the Defence Minister flagged-in India's first multi-dimensional adventure sports expedition conducted by National Institute of Mountaineering and Allied Sports (NIMAS) in France.

About Expedition

- The expedition was conducted in November 2021 and the team was led by Director NIMAS comprising 12 people eight Army personnel and four youths of Arunachal Pradesh.
- The expedition team carried out over 250 kilometres of winter trekking in the Alps Mountain Ranges, which included Tour De Mont Blanc trek covering the French, Swiss and Italian Alps.

National Institute of Mountaineering and Allied Sports:

- It is an advanced sports training institute located in the West Kameng district of Arunachal Pradesh.
- It operates under the control and superintendence of the Ministry of Defence.
- The institute offers training across land, air and water, a first of its kind that allows civilians to experience challenges across a variety of outdoor surfaces as well as pursue a career in adventure sports.

Saffron Bowl project

In News

North East Center for Technology Application and Reach (NECTAR) under Saffron Bowl project has identified a few locations in Arunachal Pradesh and Meghalaya for saffron cultivation. The total cost of the whole project is Rs. 17.68 lakhs for Arunachal Pradesh and Meghalaya.

Saffron & its importance

- Saffron is a plant whose dried stigmas (thread-like parts of the flower) are used to make saffron spice.
- Saffron cultivation is believed to have been introduced in Kashmir by Central Asian immigrants around the 1st Century BCE.
- It has been associated with traditional Kashmiri cuisine and represents the rich cultural heritage of the region.
- It is a very precious and costly product.
- In ancient Sanskrit literature, saffron is referred to as 'bahukam'.
- It is cultivated and harvested in the Karewa (highlands) of Jammu and Kashmir.
- It rejuvenates health and is used in cosmetics and for medicinal purposes.
- It has been associated with traditional Kashmiri cuisine and represents the rich cultural heritage of the region.

Nai Roshni Scheme

In News

Recently, the Ministry of Minority Affairs has informed the Rajya Sabha that the Government has sanctioned Rs 26 crore under the Nai Roshni scheme in the last three years (2018-19 to 2020-21) through which around one Lakh women have been trained.

About the scheme

- Nai Roshni-a Leadership Development Programme for Minority Women is a Central Sector Scheme for women belonging to minority communities in the age group of 18 to 65 years.
- It was started in 2012-13.
- The objective of the scheme is to empower and instil confidence among minority women, including their neighbours from other communities living in the same village/locality, by providing knowledge, tools and techniques for interacting with Government systems, banks and other institutions at all levels.
- It is run with the help of NGOs, Civil societies and Government Institutions all over the country.
- It includes various training modules like Leadership of women, Educational Programmes, Health and Hygiene, Swachch Bharat, Financial Literacy, Life Skills, Legal Rights of Women, Digital Literacy and Advocacy for Social and behavioral change.

Celebrations of the 4th Janaushadhi Diwas 2022

In news

The 4th Janaushadhi Diwas 2022 celebrations commenced on 1 Jan 2022

Theme:

"Jan Aushadhi-Jan Upyogi"

Objective

To raise awareness about the benefits of Jan Aushadhi Pariyojana and the usages of generic medicines.

About Jan aushadhi scheme

- 'Jan Aushadhi Scheme' was launched by the Department of Pharmaceuticals, Ministry of Chemicals & Fertilizers, Government of India in November 2008.
- Till May 2014, only 80 'Jan Aushadhi Stores' were in operation in selected States.
- The Government revamped the 'Jan Aushadhi Scheme' in September 2015 as 'Pradhan Mantri Jan Aushadhi Yojana' (PMJAY).
- To give further impetus to the scheme, it was again renamed as Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP).
- Till 31st January 2022, 8675 PMBJP Kendras are functional across the country.

The Objectives of PMBJP

- To make available quality medicines, consumables and surgical items at affordable prices for all and reduce out of pocket expenditure of consumers/patients.
- To popularize generic medicines among the masses and dispel the prevalent notion that low priced generic medicines are of inferior quality or are less effective.
- To ensure easy availability of the menstrual health services (Janaushadhi 'Suvidha' sanitary napkins) to all women across India.
- Generate employment by engaging individual entrepreneurs in the opening of PMBJP Kendras.

Conclave on 'Social Enterprises for Garbage Free Cities'

In news

Swachh Bharat Mission-Urban 2.0, under the aegis of the Ministry of Housing and Urban Affairs (MoHUA), is organizing a National conclave on 'Social Enterprises for Garbage Free Cities: Encouraging Women Entrepreneurs in Waste management.

Details

- This event will serve as a platform for peer learning for States and Urban Local Bodies (ULBs) on various centralised and decentralized waste management practices, as part of the Mission's capacity building initiatives.
- The event will also witness the release of the "National Capacity Building Framework for Garbage Free Cities" under SBM-Urban 2.0, which will help build capabilities of relevant stakeholders to strengthen the urban sanitation sector in the country.

About The Mission

- On 1st October, the Prime Minister launched the Swachh Bharat Mission U 2.0 with the overall vision of creating "Garbage Free Cities".
- The Mission is being implemented under the overarching principles of "waste from wealth", and "circular economy" for maximising resource recovery.
- In the process, the Mission is focusing on creating an enabling eco-system for opening up of entrepreneurial opportunities in the sanitation sector through social enterprise development, especially among the economically weaker sections of society, and including women empowerment.
- Recently, a **Swachhata Startup Challenge** has been launched by the Mission, in partnership with Government of France.

Solutions across various themes

- Social inclusion,
- Zero dump (solid waste management),

- Plastic waste management,
- Transparency through digital enablement.

Government reopens application window for PLI Scheme for White Goods

In News

The Union Cabinet had given approval for the PLI Scheme for White Goods for manufacture of components and subassemblies of Air Conditioners (ACs) and LED Lights to bring manufacturing at the center stage and emphasize its significance in driving India's growth and creating jobs.

Details

- The Scheme is to be implemented over a seven-year period, from FY 2021-22 to FY 2028-29 and has an outlay of Rs. 6,238 crore.
- In order to boost domestic manufacturing and cut down on import bills, the union government in March 2020 introduced a PLI scheme that aims to give companies incentives on incremental sales from products manufactured in domestic units.
- Apart from inviting foreign companies to set shop in India, the scheme also aims to encourage local companies to set up or expand existing manufacturing units.
- The Scheme has also been approved for sectors such as automobiles, pharmaceuticals, IT hardware including laptops, mobile phones & telecom equipment, white goods, chemical cells, food processing, etc.

Weather-Based Index Insurance Scheme

In News

The Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying is implementing a flagship scheme namely Pradhan Mantri Matsya Sampada Yojana (PMMSY) with a highest ever investment of Rs. 20,050crore for a period of 5 years with effect from 2020-21 to 2024- 25 in all the States/Union Territories.

About PMMSY

- PMMSY *inter-alia* provides livelihood and nutritional support for socio-economically backward active traditional fisher's families during the fishing ban/lean period under which Governmental financial assistance of Rs. 3000/- per annum is provided to each enrolled beneficiary along with beneficiary contribution of Rs. 1500/- annually.
- Further, such accumulated amount of Rs. 4500/- is disbursed to each enrolled beneficiary by the respective State/UT at the rate of Rs. 1500/- per month during the fishing ban/lean period for three months annually.
- PMMSY also provides support for insurance to fishers and insurance premium subvention for fishing vessels under its Centrally Sponsored scheme component.

Insurance coverage for fishers includes

- Rs.5,00,000/- against accidental death or permanent total disability,
- Rs.2,50,000/- for permanent partial disability
- insurance coverage for hospitalization expenses in the event of accident for a sum of Rs. 25,000/-

NAV BHARAT LITERACY PROGRAMME

In News

The Union of India has approved a Centrally Sponsored Scheme, namely, "New India Literacy Programme (NILP).

About NILP

- Aim- to support the States and Union Territories in promoting literacy among non-literates in the age group of 15 and above, across the country covering 5 crore non-literates during the implementation period from 2022-23 to 2026-27.
- The scheme has been approved with a financial outlay of Rs.1037.90 crore including Central share of Rs.700.00 crore and State share of Rs.337.90 crore.
- The scheme has five components namely, Foundational Literacy and Numeracy, Critical Life Skills, Vocational Skills Development, Basic Education and Continuing Education.

Features

- involvement of school students, pre-service students of Higher Education Institutions (HEIs), school teachers, Anganwadi and ASHA workers, NYKS, NSS, NCC volunteers,
- school to be unit for implementation of the scheme
- use of ICT and online implementation of the scheme through 'Online Teaching Learning and Assessment System' (OTLAS)
- material and resources through digital modes, viz, TV, radio, cell phone-based free/open-source Apps/portals, etc.
- Assessment tests to be conducted in schools by State/UTs and evaluation of learners by NIOS/SIOS; assessment on demand through OTLAS and generation of e-certificates,
- Sample achievement survey and
- Online MIS.

E-GOPALA PORTAL

In News

Recognising the need of a digital platform to help dairy farmers for managing their animals, the Department has developed an android and web-based application called "e- GOAPLA".

About Portal

- Hon'ble Prime Minister inaugurated the e-GOPALA App in September 2020 for direct use by the farmers.
- This application is available in 12 languages viz. Hindi, Gujarati, Marathi, Odiya, Kannada, Malayalam, Punjabi, Telugu, Bengali, Tamil, Assamese and English.
- It helps farmers to formulate balanced ration for dairy animals using locally available feed ingredients optimising the feed costs while increasing productivity and reproductive efficacy.
- It helps farmers in management of nearly 29 common ailments of dairy animals e.g. mastitis, indigestion, diarrhoea etc. using Ethno-Veterinary Medicine (EVM).
- This section also contains videos in various languages on disease management protocols through Ethno-Veterinary Medicine.
- Provides digital platform for buying/selling of dairy animals, information on source of quality semen doses available for various breeds of cattle and buffaloes and contact details for availability of IVF embryos and sex-sorted semen.
- Provides real-time information on breeding, nutrition and health of their animals from INAPH.

- It provides timely alerts on due date for vaccination, pregnancy diagnosis, calving etc. as well as information about various schemes on dairying and animal husbandry.
- Farmers can also directly connect to call centre for their queries on animal health, nutrition and breeding though this App.
- Under Rashtriya Gokul Mission Government of India has been promoting is use of sex sorted semen for production of female calves with 90% accuracy. The extensive use of sex sorted semen will limit stray cattle population in the country.

Rooftop Solar Programme Phase-II

In News

- The Ministry of New and Renewable Energy is implementing Rooftop Solar Programme Phase-II for which the guidelines were issued in August 2019.
- Under this Programme 4000 MW rooftop solar (RTS) capacity addition is targeted in residential sector through Central Financial Assistance (CFA).

About programme

- The Programme is demand driven and capacities are allocated based on demand received from Distribution Utilities and other state implementing agencies.
- CFA up to 40% of the benchmark cost is provided for RTS projects up to 3 kW capacity and up to 20% for RTS system capacity beyond 3 kW and up to 10 kW for individual households.
- For Group Housing Societies/Residential Welfare Associations (GHS/RWA), CFA is limited to 20% for RTS plants for supply of power to common facilities maximum 500 kW capacity.
- In addition, incentives up to 10% of cost of rooftop solar is provided to Distribution Utilities depending upon achievements in capacity addition above baseline.

Project UNNATI under Mahatma Gandhi NREGA

In News

Union Minister of Rural Development & Panchayati Raj, Shri Giriraj Singh will be Felicitating 75 trained candidates of Project UNNATI under Mahatma Gandhi NREGA.

About UNNATI

- Project 'UNNATI', as a skilling project intends to upgrade the skill base of the Mahatma Gandhi NREGA beneficiaries, and thereby improving their livelihoods, so that they can move from the current partial employment to full-time employment and hence reduce their dependence on Mahatma Gandhi NREGS.
- This project is improving the livelihoods of the neediest Mahatma Gandhi NREGA beneficiaries by providing a skill, either for self-employment or wage employment.
- As of now, a total number of 18,166 candidates have been trained under Project UNNATI.
- This project is meant for providing training for one adult member (of age 18-45 years old) of a household who has completed 100 days of work under Mahatma Gandhi NREGA in the previous financial year from the year of commencement of the project.

Foundational Learning Study

In News

Ministry of Education will be conducting a 'foundational learning study' in order to draw a first-hand understanding of the learning levels of the students at the foundational learning stage (at the end of Grade 3).

About the Study

- The study is first of its kind in the world as it aims to set-up benchmarks for reading with comprehension in 22 Indian languages.
- The Foundational Learning Study will be conducted by the NCERT in all States and UTs over a window of four days.
- Approximately, 10000 schools and 1 lakh students are expected to participate in this study.
- The Foundational Learning study will enable to establish benchmarks in reading with comprehension in different Indian languages for children at Grade 3 level.
- It will assess the ability to read age-appropriate known as well as unknown text at a certain pace, accurately, and with comprehension and also the foundational numeracy skills and form a baseline for the NIPUN Bharat Goals.

Objectives

- To conduct a large-scale assessment of the foundational learning of grade 3 students to establish a baseline for the NIPUN Bharat mission
- To establish reading proficiency benchmarks for fluency with comprehension for each of the languages being assessed under the study
- To provide the data for SDG 4.1.1. (Covering aspects of foundational literacy and numeracy).

Economic Empowerment of Women Entrepreneurs and Start-ups by Women (Her&Now)

In News

In a major step to end the gender-based barriers that pose significant obstacles to women entrepreneurs across India, Atal Innovation Mission (AIM), NITI Aayog, today announced their collaboration with the Indo-German Development Cooperation Project.

About the project

- Economic Empowerment of Women Entrepreneurs and Start-ups by Women (Her&Now)' commissioned by the Federal Ministry for Economic Cooperation and Development (BMZ) and jointly implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and the Ministry for Skill Development and Entrepreneurship, Government of India, to help women play a greater role in the economy as entrepreneurs.
- The partnership between AIM and Her&Now will impart the 'WINcubate Training Programme' to the AIM Incubators and Innovation Centres and equip them in adopting a gender-focused approach.
- It will help the participants to design and implement women centric incubation programmes.
- The WINcubate Training Programme has been developed by Her&Now together with the Indian NGO Dhriiti

 the Courage Within and is based on best practices of women entrepreneurship support programmes
 implemented in the country since 2019.

Production of Bees Wax

In News

A National Conclave on "Production of Bees Wax" was organized by National Dairy Development Board (NDDB), Gujarat in collaboration with the National Bee Board (NBB), Ministry of Agriculture and Farmers Welfare on 30th March, 2022.

Details

- The conclave was supported by the National Agricultural Cooperative Marketing Federation of India Ltd. (NAFED) & Tribal Co-Operative Marketing Development Federation of India Limited (TRIFED).
- The objective of this National Conclave is to create awareness about the production of other high-value beekeeping products viz. Bees Wax, Bee pollen, Royal Jelly, Propolis, bee venom, etc.
- Through the implementation of the National Beekeeping and Honey Mission (NBHM), Government of India has taken so many initiatives to strengthen the beekeeping industry in the country.
- Under NBHM, thrust is being given to setting up infrastructural facilities for collection, processing, trading, testing and branding of honey and other beehive products.

About NBHM

The main objective of NBHM is to promote holistic growth of beekeeping industry for income & employment generation for farm and non-farm households, to enhance agriculture/ horticulture production, developing infrastructural facilities, including setting up of Integrated Beekeeping Development Centre (IBDC)s/CoE, honey testing labs, bee disease diagnostic labs, custom hiring centres, Api-therapy centres, nucleus stock, bee breeders, etc. and empowerment of women through beekeeping.

Integrated Power Development Scheme

In News

Government of India launched the Integrated Power Development Scheme (IPDS) in December, 2014 under which Distribution Infrastructure projects for strengthening of sub-transmission and distribution networks in urban areas metering of distribution transformers / feeders / consumers in the urban areas were executed.

Features of the Scheme

- Under IPDS, Central funding is being provided for strengthening of sub- transmission & distribution networks in the urban areas and metering of distribution transformers/feeders/consumers for reduction of Aggregate Technical & Commercial (AT&C) losses.
- Funds have also been sanctioned under IPDS for underground (UG) cabling and Aerial Bunched (AB) cables and metering, which help in reducing AT&C losses.
- Under IPDS, System Strengthening and Distribution (ST&D) projects covering 547 Circles in 33 States/UTs were taken up.

National Perspective Plan

In News

• Under the National Perspective Plan (NPP), the National Water Development Agency (NWDA) has identified 30 links (16 under Peninsular Component & 14 under Himalayan Component) for preparation of Feasibility Reports.

 Out of these, Ken-Betwa Link Project, Par-Tapi-Narmada Link Project, Damanganga-Pinjal Link Project and Godavari (Inchampalli barrage)-Cauvery (Grand Anicut) link project have been declared as priority link projects by the Government of India.

Ken-Betwa Project

- Ken-Betwa Link Project (KBLP) is the first interlinking of rivers (ILR) project under the NPP which is under implementation.
- The Govt. of India has approved the implementation of KBLP with an estimated cost of Rs 44,605 Cr (year 2020-21 price level) with central support of Rs 39,317 Cr through a Special Purpose Vehicle viz; Ken Betwa Link Project Authority (KBLPA)

Benefits of NPP

The implementation of the link projects under National Perspective Plan (NPP) is expected to give benefit of 25 million ha of irrigation from surface water and 10 million ha by increased use of ground water, raising the ultimate irrigation potential from 140 million ha to 175 million ha, apart from generation of 34 million KW of power and other benefits of flood control, navigation, augmentation of water supply, fisheries, salinity control, pollution control and employment generation etc.

Catch the Rain Programme

In News

- Catch the Rain (JSA:CTR) campaign involves inter-sectoral convergence of all development programmes of the Central as well as State Government.
- Funds under different schemes like Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Atal Mission for Rejuvenation and Urban Transformation (AMRUT) and Repair, Renovation & Restoration, Watershed Development Component, Per Drop More Crop under Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) etc. are leveraged for the implementation of JSA:CTR.

About the programme

- AIM- to take water conservation at grass-root level through people's participation.
- It is intended to nudge all stakeholders to create rainwater harvesting structures suitable to the climatic conditions and subsoil strata, to ensure proper storage of rainwater.
- A financial grant of Rs. 2.00 lakh is allocated by Ministry of Jal Shakti to every district to meet part of the expenditure in Geographic Information System (GIS) mapping of water bodies and preparation of scientific plans.
- CTR was implemented in all districts (Urban and Rural) of the country with five focused interventions-
- rainwater harvesting & water conservation
- enumerating, geo-tagging & making inventory of all water bodies; preparation of scientific plans for water conservation
- Setting up Jal Shakti Kendras in all districts
- intensive afforestation and
- awareness generation.

Saksham Cazmpaign

In News

'Saksham', an annual people-centric mega campaign of Petroleum Conservation Research Association (PCRA), under the aegis of Ministry of Petroleum and Natural Gas, was launched by Secretary, Ministry of Petroleum and Natural Gas and Chairman-PCRA.

About the Campaign

- It is a flagship public awareness campaign to spread the message of Fuel Conservation and Energy Efficiency and help in building a cleaner and greener India and also reduce its reliance on crude oil imports.
- He flagged-off the publicity vans of PCRA, the fuel conservation messages on wheels, equipped with audio, video and print displays to attract and spread the conservation awareness especially amongst the rural masses.
- During the event, Energy Efficiency Index for LPG Plants was formally launched and a booklet on this was released.

Pradhan Mantri Dakshta Aur Kushalta Sampann Hitgrahi Yojana

In News

- The youth, owing to their educational backwardness, are finding difficulties to obtain employment with good compensation after undergoing short-term skilling courses.
- In this background, the government has highlighted the need for and significance of this scheme.

PM- DAKSH

- PM-DAKSH (Pradhan Mantri Dakshta Aur Kushalta Sampann Hitgrahi) Yojana is a National Action Plan for skilling of marginalized persons covering SCs, OBCs, EBCs, DNTs, Sanitation workers including waste pickers.
- The scheme is being implemented by the Ministry of Social Justice and Empowerment from the year 2020-21.
- Under the scheme, eligible target groups are being provided skill development training programmes on upskilling/reskilling, short term training programme, long term training programme and entrepreneurship development program (EDP).

Key Features of the Scheme:

- Training free of cost for the trainees, 100% grants by Government.
- Stipend of Rs.1,000/- to Rs.1,500/- per month per trainee for trainees having 80% and above attendance in short term and long term training.
- Wage compensation @ Rs.3000/- per trainee (Rs.2500/- as per PM-DAKSH and Rs.500/- as per Common Cost Norms for trainees having 80% and above attendance in Reskilling/Up-skilling.
- Trained candidates will be provided certification after successful completion of training and assessment.
- Trained candidates will be provided placement after assessment and certification.

UDAN scheme selected for Prime Minister's Award for Excellence in Public Administration

In News

Ministry of Civil Aviation (MoCA) flagship Regional Connectivity Scheme UDAN (UdeDeshkaAamNagrik) has been selected for Prime Minister's Award for Excellence in Public Administration 2020 under the category "Innovation (General) – Central".

About Award

- Government of India has initiated this award to acknowledge, recognize and reward extraordinary and innovative work done by Districts and Organizations of State/Government.
- This scheme emphasises on Good Governance, Qualitative achievements, and last mile connectivity rather than only on achievement of quantitative targets.
- The award consists of a trophy, scroll and an incentive of Rs 10 lakhs.

UDAN Scheme

- Launched in 2016,
- AIM- to fulfil the aspirations of the common man by following the vision of *UdeDeshkaAamNagrik*, with an enhanced aviation infrastructure and air connectivity in tier II and III cities.
- In a short span of 5 years, today 415 UDAN routes connect 66 underserved/unserved airports, including heliports and water aerodromes, and over 92 lakh people have benefited from it.
- More than 1 lakh 79 thousand flights have flown under this scheme.
- UDAN scheme has immensely benefitted several sectors pan-India including Hilly States, North-Eastern region, and Islands.

Benefits

- UDAN has a positive impact on the economy of the country and has witnessed an excellent response from industry stakeholders especially airlines operators and state governments.
- The scheme also led to development of new Green Field Airports such as Pakyong near Gangtok in Sikkim, Tezu in Arunachal Pradesh and Kurnool in Andhra Pradesh.
- The scheme also led to 5% incremental growth in domestic passenger share of non-metro airports.

Dr. Ambedkar Centres of Excellence (DACE) Scheme

In News

Union Minister for Social Justice and Empowerment and Chairman of Dr. Ambedkar Foundation (DAF) Dr. Virendra Kumar will launch the Dr. Ambedkar Centres of Excellence (DACE) SchemePan India from Banaras Hindu University, Varanasi.

Features of the Scheme

- Dr. Ambedkar Foundation (DAF), Ministry of Social Justice & Empowerment, Govt. of India, is starting **Dr. Ambedkar Centres of Excellence (DACE)** in 31 Central Universities across the country.
- The DACEs are being set up to provide high qualityfree coaching facilities to the Scheduled Caste students for the Civil Services examinations, conducted by Union Public Service Commission (UPSC).
- Under the DACEScheme, a total of 100 seats will be sanctioned for coaching per centre.
- Of the total sanctioned seats for coaching, 33% seats will preferably be given to the eligible female candidates of Scheduled Castes.

• If eligible female candidates are not available in sufficient numbers for the coaching, the concerned University will allocate the vacant seats to the male/transgender candidates (SC Candidates only).

Funds

- Dr. Ambedkar Foundation (DAF) shall fund the entire expenditure incurred on the establishment of Dr. Ambedkar Centre for Excellence. Rs. 75,000/- per annum / per student will be provided to the University for 100 students.
- Total amount of Rs. 75.00 lakh per year would be provided to the University for running the Scheme.

Dr. Ambedkar Chairs

- **AIM-** to provide advanced Centres of learning in the premier universities and educational institutes, where academicians, scholars and students would enrich and advance studies and research to understand, assess, disseminate and implement the ideas and thoughts of Dr. B.R. Ambedkar.
- To conduct research and higher studies vis-à-vis the socio-economic and cultural life as well as the biological aspects of the marginalized/oppressed groups or backward classes or weaker sections of the society.
- To conduct advanced research and teaching on the present and past of the deprived sections of Indian society to provide justice and empower them.
- The DAF has revised the amount of grant-in-aid to Dr. Ambedkar Chairs from the present Rs. 35.00 Lakh to Rs. 75.00 Lakh.
- To facilitate the establishment of the Chairs, a one-time grant of Rs. 10.00 lakh is released to each Chair at the time of the 'Initial Establishment' of each Chair.

Aarohan 4.0

In News

Two days meet of senior functionaries of Postal Department and India Post payments Bank (IPPB), AAROHAN 4.0 in Shimla.

Aarohan 4.0

- Aim- To discuss and deliberate ways to further deepen Financial Inclusion drive in the country and to provide banking solutions to every citizen of India.
- **Postal Department** along with IPPB is working on the vision of Prime Minister' Digital India initiative to promote the digital payments and bring digital banking services to every nook and corner of the country in a customer friendly manner.
- IPPB leverages upon the world's largest postal network of Department of Posts to offer inter operable banking services at door step benefiting senior citizens, farmers, migrant labourers and women amongst others.

About IPPB

- It has been established under the Department of Posts, Ministry of Communication with 100% equity owned by Government of India.
- IPPB was launched by the Hon'ble Prime Minister Shri Narendra Modi on September 1, 2018.
- The bank has been set up with the vision to build the most accessible, affordable and trusted bank for the common man in India.
- The fundamental mandate of IPPB is to remove barriers for the unbanked and under-banked and reach the last mile leveraging a network comprising 160,000 post offices (145,000 in rural areas) and 400,000 postal employees.

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Jal Jeevan Mission

In News

- Keeping in line with Prime Minister Shri Narendra Modi's vision to provide every rural home with safe drinking water, the country has achieved the milestone of 50% rural households having access to tap water connections.
- Goa, Telangana, A&N Islands, D&N Haveli and Daman & Diu, Puducherry and Haryana have already achieved 100% household connections. Punjab, Gujarat, Himachal Pradesh and Bihar have coverage of more than 90% and are progressing fast towards attaining the status of 'Har Ghar Jal'.

AIM

- To empower the Panchayati Raj Institutions and communities by engaging them in water supply schemes from the very beginning.

Har Ghar Jal

Har Ghar Jal' is a flagship programme of the Union Government, implemented by Jal Jeevan Mission under the Ministry of Jal Shakti, in partnership with States/ UTs to ensure tap water connection in every rural household by 2024.

Significance

- At the time of launch Jal Jeevan Mission in 2019, only 3.23 Crore households i.e. 17% of the rural population had access to drinking water through taps.
- The burden of arrangement of water for daily household needs mostly fell on women and young girls.
- There is sufficient evidence to suggest that school attendance among girls was significantly lower in summers when due to increased requirements for water, multiple trips were needed.
- After the launch of Jal Jeevan Mission and improvement in access to tap water connection within their premises, considerable improvement in this regard has been noticed.
- Under JJM, support is provided to Panchayats by the State Government through Implementing Support Agencies (ISAs) in community engagement, building capacity of the Pani Samitis, and taking up O&M activities.

PM CARES for Children Scheme

In News

Prime Minister Shri Narendra Modi will release benefits under the PM CARES for Children Scheme on 30 May 2022 at 10:30 AM via video conferencing.

PM Cares Scheme

- It was launched by the Prime Minister on 29 May 2021 to support children who have lost both the parents or legal guardian or adoptive parents or surviving parent to Covid-19 pandemic, during the period from 11 March 2020 to 28 February 2022.
- The objective of the Scheme is to ensure comprehensive care and protection of children in a sustained manner by providing them boarding and lodging, empowering them through education and scholarships, equipping them for self-sufficient existence with financial support of Rs. 10 lakh on attaining 23 years of age and ensuring their wellbeing through health insurance. A portal named pmcaresforchildren.in was launched to register the children.
- The portal is a single window system which facilitates approval process and all other assistance for children.

Garib Kalyan Sammelan

In News

Prime Minister Narendra Modi will participate in the 'Garib Kalyan Sammelan' in Shimla, marking the completion of eight years of his government, and will directly interact with the beneficiaries of different schemes.

Garib Kalyan Sammelan

- This novel public programme marking completion of eight years of the government led by the Prime Minister, is being organized across the country at State Capitals, District Headquarters and Krishi Vigyan Kendras.
- The Sammelan conceptualizes elected public representatives across the country directly interacting with the public in an endeavour to get feedback about the various welfare programmes being run by the government.
- The freewheeling interaction being organised across the country is aimed at getting free and frank feedback from the public, understanding the impact of welfare schemes in people's lives and exploring convergence and saturation with regard to different government programmes.

Prime Minister's Employment Generation Programme (PMEGP)

In News

The PMEGP has been approved for continuation over the 15th Finance Commission Cycle for five years from 2021-22 to 2025-26 with an outlay of Rs.13554.42 Crore.

PMEGP

- Ministry of MSME, Government of India is implementing Prime Minister's Employment Generation Programme (PMEGP), to facilitate generation of employment opportunities for unemployed youth across the country by assisting setting up of micro-enterprises in non-farm sector.
- KVIC is national level nodal agency.
- At State/District level State office of KVIC, State KVIBs and DICs are the implementing agencies.
- Coir Board is the implementing Agency for the Coir Units.
- Since its inception in 2008-09, about 7.8 lakh micro enterprises have been assisted with a subsidy of Rs 19,995 Crore generating estimated sustainable employment for 64 lakh persons.
- About 80% of the units assisted are in **rural** areas and about 50% units are owned by SC, ST and women categories.

Modifications in the scheme

- Increasing the maximum project cost from existing Rs.25 lakh to Rs. 50 lakh for manufacturing units and from existing Rs.10 lakh to Rs.20 lakh for service units.
- Modify definition of village industry and Rural Area for PMEGP. Areas falling under Panchayti Raj institutions to be accounted under rural area, where as areas under Municipality to be treated as urban area.
- All Implementing Agencies are allowed to receive and process applications in all areas irrespective of the rural or urban category.
- PMEGP applicants under aspirational districts and transgender will be treated as Special category applicants and entitled for higher subsidy.

Major impact:

Scheme will create sustainable estimated employment opportunities for about 40 lakh persons in five financial years.

Sagarmala Young Professional Scheme

In News

Ministry of Ports, Shipping and Waterways has formulated scheme to engage talented, forward-thinking and dynamic young professionals in various divisions of the Ministry.

About the scheme

- This scheme focuses on active on-the-ground learning for young professionals.
- The professionals will have the opportunity to learn about the functioning of the government as well as developmental policy concerns.
- Professionals will be required to deliver high-quality inputs in areas such as infrastructure, data analysis, project management, start-up, innovation, skill development, digital transformation and the environment, among others, in order to meet Ministry's needs.
- The scheme will foster active involvement of young people in decision-making.
- This will further contribute to social wellness at an individual level, by boosting self-esteem and a sense of empowerment, and bring about crucial benefits for societies such as an enhanced awareness for common concerns and a joint resolve to identify solutions that work in the long term.

In-service training received by Agniveers as credits for graduation

In News

In order to enhance the future career prospects of our *Agniveers*, and equip them for various job roles in the civilian sector, the Ministry of Education is to launch a special, three year skill based bachelor degree programme for serving defence personnel that will recognize the skill training received by them during their tenure in the defence establishments.

Details

- Under this programme that has been designed by IGNOU and will also be executed by them, 50 % of the credits required for a graduate degree will come from the skill training both technical and non-technical received by the Agniveer.
- The remaining 50 % will come from a basket of courses that cover a wide variety of subjects like languages, Economics, History, Political Science, Public Administration, Sociology, Mathematics, Education, Commerce, Tourism, Vocational Studies, Agriculture and Jyotish, as also Ability Enhancement Courses on Environmental Studies and Communication Skills in English.
- This programme is aligned with UGC norms and with the National Credit Framework / National Skill Qualification Framework (NSQF) as mandated under the National Education Policy 2020.
- It also has provision for multiple exit points Undergraduate Certificate on successful completion of the first year courses, Undergraduate Diploma on successful completion of the first and second year courses, and Degree on completion of all the courses in three year time frame.

Aspirational Districts Programme

In News

Aspirational Districts Should be 'Inspirational Districts' of India, Programme Should be Extended to Block & City Levels: PM

Aspirational District Programme

- Launched by the Hon'ble PM in January 2018, the Aspirational Districts programme aims to quickly and effectively transform 112 most under-developed districts across the country.
- The broad contours of the programme are Convergence (of Central & State Schemes), Collaboration (of Central, State level 'Prabhari' Officers & District Collectors), and Competition among districts through monthly delta ranking; all driven by a mass movement.
- This program focuses on the strength of each district, identifying low-hanging fruits for immediate improvement and measuring progress by ranking districts on a monthly basis.
- The ranking is based on the incremental progress made across 49 Key Performance Indicators (KPIs) under 5 broad socio-economic themes Health & Nutrition, Education, Agriculture & Water Resources, Financial Inclusion & Skill Development and Infrastructure.
- The delta-ranking of Aspirational Districts and the performance of all districts is available on the Champions of Change Dashboard.

Mukhyamantri Matrushakti Yojana

In News

- The Prime Minister, Shri Narendra Modi recently participated in Gujarat Gaurav Abhiyan at Vadodara.
- He also launched two flagship programmes of the Gujarat government under its Integrated Child Development Services, Poshan Abhiyan, which will be focused on rolling out additional nutrition to pregnant women and lactating mothers.

Mukhyamantri Matrushakti Yojana

- The Mukhyamantri Matrushakti Yojana, which will cover 7 lakh women, is Gujarat government's first scheme aimed at dealing with dietary deficiency within the first 1,000 days of the conception of a child (from pregnancy to 2 years), considered the crucial first window to check malnutrition.
- The scheme will entail distribution of 2 kg chickpeas, 1 kg toor daal and 1 litre fortified ground nut oil.
- The entire scheme will be electronically monitored. Packets will have bar codes which will be scanned and the scheme is OTP based.
- This means the beneficiary will receive OTPs confirming that they have received these packages, so that we know that the intended beneficiary is actually receiving the ration.

Poshan Sudha Yojana

- Under the scheme hot cooked meals will be provided to tribal women once a day at Anganwadi centres.
- The pilot has been carried out in 10 districts in the state and is now being extended to all 14 tribaldominated districts.
- Pregnant women and lactating mothers registered at Anganwadi are provided a full nutritious meal.
- In addition, iron and calcium tablets as well as education on health and nutrition are also offered.

NFHS-5 Report

- 89% children across the country in the 6-23 month age group do not receive minimum acceptable diet.
- A child needs at least 4 out of 7 food groups indicated by the WHO everyday to have a minimum acceptable diet.
- Gujarat features at the bottom of the pile in NFHS 5, along with Uttar Pradesh, with the lowest adequate diets for children between 6-23 months at 5.9% each.

Purple Revolution

In News

Union Minister of State (Independent Charge) Science & Technology; Dr Jitendra Singh said that "**Purple Revolution**" has shifted focus to Agri-tech StartUps.

Purple Revolution

- First-time farmers were given free lavender saplings and those who have cultivated lavender before were charged Rs. 5-6 per sapling.
- AIM To support domestic aromatic crop based agro economy by moving from imported aromatic oils to homegrown varieties.
- Council of Scientific and Industrial Research (CSIR) and Indian Institute of Integrative Medicine, Jammu (IIIM Jammu), the two bodies are mainly responsible for making purple revolution under the Aroma Mission a success.

Significance

- Due to high monetary returns, farmers in hilly areas of Jammu and Kashmir are switching from traditional farming to aroma crops like lavender in a big way.
- He added that aroma crops are both drought and pest resistant, and CSIR is providing all kind of technical support for promoting this Agri Start-up boon in the UT.
- The Minister informed that CSIR is also planning to introduce the aroma crops in other hilly States with similar climatic conditions like Uttarakhand, Himachal Pradesh and in North-Eastern States.
- CSIR provided free quality planting material and end-to-end technology package on cultivation, processing, value addition and marketing of the Lavender crop to the farmers.

Policy & Portal of e-auction for Commercial earning, Non-Fare Revenue (NFR) contracts

In News

Shri Ashwini Vaishnaw launched e-auction for Commercial earning, Non-Fare Revenue (NFR) contracts in Rail Bhavan.

About Policy

- This policy is in line with the vision of Hon'ble Prime Minister to change the experience of common man by the use of technology.
- With this new policy, tedious process of tendering would get simplified. Also, it would give opportunities for youth to join the e-auction process.
- This policy enhances ease of living, promotes transparency and adds to Digital India initiatives in Railways.

E-Auction

- Bidder located anywhere in India need to self register once for participating in auctions of any field unit of Indian Railways through the portal.
- Remotely bid can be placed for management rights of an asset after depositing earnest money (EMD) electronically.
- Successful bidder would be able to receive acceptance online and through e-mail in very short span of time.
- There is no financial turnover requirement for annual contracts upto Rs. 40 lacs.

Features

- The Auction will be conducted online through 'E-Auction Leasing' module of IREPS: www.ireps.gov.in
- Policy for e-Auction and Standard Conditions of Auction issued by Railway Board:
- Earlier system of physical registration of contractors Division-wise has been done away with
- Only financial criteria based on self-declaration of past turnovers by contractors
- Financial turnover criteria rationalized and standardized No turnover requirement upto Rs. 40 lacs annual contract estimates
- One time online self-registration of contractors
- No geographical restrictions for participation in any auction of any Division
- All assets will be fed in the system for better monitoring and ensuring issuing contracts in advance reduce asset idling
- Auction catalogues with all details of the assets will be published online on IREPS portal, minimum 15 days in advance

Benefits

- Online mode makes potential bidders from distant location across country to participate in the bidding process.
- Online payment to Railways post award of contract. Till now provision of daily manual payment in parcel leasing contract is there, which is a tedious process. Now it is made online.
- Better Monitoring: After mapping, portal prompts when an earning contract of a particular asset is nearing completion and compels to start fresh auction, thus making idle time of the asset minimal.
- Standardization of eligibility conditions pan-India.

One Health Pilot

In News

Government will launch 'One Health' Pilot programme on June 28, in Bengaluru.

About Programme

- Department of Animal Husbandry & Dairying (DAHD), Ministry of Fisheries, Animal husbandry and Dairying, Government of India has taken an initiative to bring stakeholders from animal, human and environment health on a common platform to address the challenges through One-Health approach.
- DAHD in collaboration with the Bill & Melinda Gates Foundation (BMGF) and The Confederation of Indian Industry (CII) as implementation partner is implementing the One-Health Framework undertaking project in the states of Karnataka and Uttarakhand.
- DAHD would develop a national One Health roadmap based on the learnings of this initiative which in turn would help to prevent the future zoonotic disease outbreaks, equipped with better response mechanism and management while incorporating global best practices.
- Capacity building plan for Karnataka and One Health brochure (Kannada) will be unveiled during the event.

Benefits

- Human health cannot be viewed in isolation and it is dependent on the environment it lives which includes animals too. The One Health project helps in realizing the interdependencies that animal and environmental health have on human life.
- It will develop a national One Health roadmap based on the learnings of the pilot project implementation.
- This will be useful in preventing zoonotic disease outbreaks in the future and facilitate a better response mechanism.

- The pilot project will institutionalize better management, and development of a targeted surveillance plan, integrate a network of laboratories, develop and implement communication strategy across sectors
- It will also integrate data with the digital architecture of the National Digital Livestock Mission.
- Furthermore, it will also help in building a strong social infrastructure that supports the health of the people and the planet.

Udyami Bharat

In News

Prime Minister Shri Narendra Modi will participate in the 'Udyami Bharat' programme at Vigyan Bhawan in New Delhi.

Udyami Bharat

- 'Udyami Bharat' is reflective of the continuous commitment of the government, right from day one, to work towards empowerment of MSMEs.
- Government has launched several initiatives from time to time like MUDRA Yojana, Emergency Credit Line Guarantee Scheme, Scheme of Fund for Regeneration of Traditional Industries (SFURTI) etc. to provide necessary and timely support to the MSME sector, which has helped benefit crores of people across the country.

RAMP Scheme

- Prime Minister will launch the 'Raising and Accelerating MSME Performance' (RAMP) scheme, with an outlay of around Rs 6000 crore.
- It aims to scale up the implementation capacity and coverage of MSMEs in the States, with impact enhancement of existing MSME schemes.
- It will complement the Aatmanirbhar Bharat Abhiyan by fostering innovation, encouraging ideation, incubating new business and entrepreneurship by developing quality standards, improving practices and processes, enhancing market access, deploying technological tools and Industry 4.0 to make MSMEs competitive and self-reliant.

CBFTE

- Prime Minister will launch the 'Capacity Building of First-Time MSME Exporters' (CBFTE) scheme, which aims to encourage MSMEs to offer products and services of international standards for the global market.
- This will enhance the participation of Indian MSMEs in the global value chain and help them realise their export potential.

New features of PMEGP

- Increase in the maximum project cost to Rs 50 lakhs (from Rs 25 lakhs) for manufacturing sector and Rs 20 lakhs (from Rs 10 lakhs) in the service sector and inclusion of applicants from Aspirational districts & Transgenders in the Special Category applicants for availing higher subsidies.
- Also, handholding support is being provided to applicants/entrepreneurs through engagement of banking, technical & marketing experts.

MSME Hackathon

- Hackathon is aimed at promoting and supporting the untapped creativity of individuals, promoting adoption of latest technologies and innovation among MSMEs.
- The selected incubatee ideas will be provided funding support of up to Rs. 15 lakhs per approved idea.

Dak Karmayogi

In News

'Dak Karmayogi', an e-learning portal of the Department of Posts was launched by Shri Ashwini Vaishnaw, Minister of Communications, Railways, Electronics & IT.

Dak Karmayogi

- This portal has been developed 'In-House' under vision of '**Mission Karmayogi**', which was conceptualized by Prime Minister Shri Narendra Modi with a view to bring efficiency in actions of all the employees of Government of India and transforming efficiency of bureaucracy with 'Minimum Government' and 'Maximum Governance'.
- 'Dak Karmayogi' portal will enhance the competencies of about 4 lakh Gramin Dak Sevaks & Departmental employees by enabling the trainees to access the uniform standardized training content online or in blended campus mode to enable them to effectively deliver a number of G2C services for enhanced customer satisfaction.
- On successful completion of final summative assessment, a system generated course completion certificate will be sent on trainee's registered email ID automatically.
- With the launch of this portal, Departmental employees and Gramin Dak Sevaks will be able to avail training 'Any-time, Any-where' and upgrade their Attitude, Skill and Knowledge (ASK), as per their convenience.
- The portal is expected to go a long way in being an enabler in providing better services by upgrading employees and Gramin Dak Sevaks.

Meghdoot Awards

- To recognise the good performance of employees of Department of Posts and motivate them to maintain or improve their good work, Meghdoot Awards were also conferred in eight different categories.
- Meghdoot Award was introduced in the year 1984.
- This is the highest award of Department of Posts at National level for overall performance and excellence.
- This award is conferred in eight categories. Awardees are conferred with medallion, certificate and cash award of Rs. 21,000/-.

Coastal Clean Seas Campaign

In News

India today assured the world community that under Prime Minister Narendra Modi it is committed to protect at least 30 % of "our" lands, waters and oceans, and thus adhere to its commitment of 30X30 by 2030.

One Planet Summit

India joined the High Ambition Coalition for Nature and People, which was initiated at the "**One Planet Summit**" in Paris in January 2021, which aims to promote an international agreement to protect at least 30% of the world's land and ocean by 2030.

Clean Sea Campaign

- UN Environment (UNEP) launched Clean Seas in February 2017, with the aim of engaging governments, the general public and the private sector in the fight against marine plastic pollution.
- Over the next five years, we will address the root-cause of marine litter by targeting the production and consumption of non-recoverable and single-use plastic.
- To do this effectively, we need citizens to be aware, engaged and active in addressing the problem in their daily lives and beyond.

• India has proposed to establish Sustainable Coastal and Ocean Research Institute (SCORI) to meet the needs and aspirations of the Pacific Island Countries (PIC).

GOAL Programme

In News

Shri Arjun Munda, Minister of Tribal Affairs launched the second phase of the Going Online As Leaders (GOAL) program. The programme is a joint initiative of the Ministry of Tribal Affairs and Meta (FaceBook).

GOAL Programme

- GOAL 2.0 initiative aims to digitally upskill 10 lakh youth by on promoting entrepreneurship amongst tribal communities of the country and opening up opportunities for them using digital technology.
- The first phase of GOAL included inspiring, connecting and upskilling tribal youth from across the country and some of whom have now created businesses that are scaling nationally.
- The programme is aimed at empowering youth and women from tribal and indigenous communities to harness the full potential of digital platforms and enhancing their leadership skills for driving community development.
- Along with digital inclusion the program aims to actively contribute to the economy by continuing to support the most vulnerable communities in tribal districts with a focus on tribal youth and on businesses led by tribal women in rural areas.
- The program will focus on three core areas Digital Literacy, Life Skills and Leadership and Entrepreneurship.
- The program intends to upskill and empower 5,000 tribal youths in the current phase to harness the full potential of digital platforms and tools to learn new ways of doing business, explore and connect with domestic and international markets.

11th World Urban Forum

In News

The Minister for Housing and Urban Affairs (MoHUA), Shri Hardeep S. Puri has said that India is the second-largest urban system in the world and 11% of the total global urban population lives in Indian cities.

WUF11

- The theme of WUF11, Transforming Our Cities for a Better Urban Future, will highlight a state of informed preparedness that provides us with the opportunity to anticipate change, correct the course of action if necessary, and become more knowledgeable on the different possibilities that the future of cities offers.
- WUF11 will provide greater insights and clarity on the future of cities based on existing trends, challenges and opportunities, as well as disruptive conditions, including the valuable lessons that cities have learned from the ongoing pandemic, and suggest ways cities can be better prepared to address future pandemics and a wide range of other shocks.
- The UN estimates that around 416 million people will be added to our urban population between 2018 and 2050.
- Indian cities contribute almost 70% to the national GDP while accounting for 44% of greenhouse gas emissions.

Measures taken to address the needs of urban areas

• Atal Mission for Rejuvenation and Urban Transformation (AMRUT) provides basic civic amenities such as water supply, parks and street lights.

- India's Smart Cities Mission has tremendously enhanced the quality of life in 100 Smart cities through citizencentric initiatives.
- Shri Puri said that the PM Street Vendor's Self-reliance Fund was a unique experiment where collateral-free working capital loans were provided to street vendors that sustained this most vulnerable section during the pandemic.

Pradhan Mantri Formalisation of Micro Food Processing Enterprises (PMFME) Scheme

In News

- The centrally sponsored Pradhan Mantri Formalisation of Micro food processing Enterprises (PMFME) Scheme was launched on 29th June, 2020 by the Ministry of Food Processing Industries, Government of India under the Aatmanirbhar Bharat Abhiyan.
- The scheme has completed two years and a journey that started with the zest to empower the unorganized Micro Enterprises continues to fulfill the aim of formalising the food processing sector and celebrating their tremendous support towards the economy, has borne good results for the sector.

PMFME scheme

- The PMFME Scheme is currently being implemented in 35 States and Union Territories.
- Under the scheme, the submission process for the applicants to apply for the credit-linked subsidy is done through the online portal (www.pmfme.mofpi.gov.in).
- The digital GIS One District One Product (ODOP) map of India has been developed to provide details of ODOPs of all the States and UTs.
- The digital map also has indicators for Tribal, SC, ST, aspirational districts and Incubation Centers approved under the PMFME Scheme. It will enable stakeholders to make concerted efforts for its value chain development.
- 75 Incubation Centers have been approved under the scheme.
- The Ministry in collaboration with the National Institute of Food Technology Entrepreneurship and Management, Thanjavur (NIFTEM-T) has also developed an online portal for submission of Incubation Center proposals and a digital map for the facilitation of details of Incubation Centers across the country.
- The PMFME Scheme also envisages financial support of Rs. 40,000 for working capital and purchase of small tools for each member of the Self Help Group (SHG) engaged in food processing activities.

SVANidhi Mahotsav

In News

The Minister for Housing and Urban Affairs had launched **SVANidhi Mahotsav** – a cultural festival for celebrating the success of PM SVANidhi Scheme and SVANidhi Mahotsav website recently.

SVANidhi Mahotsav

- MoHUA is organising 'SVANidhi Mahotsav' a cultural festival for celebrating the success of PM SVANidhi Scheme and the beneficiary street vendors & their families, from 09 July to 31 July, 2022 in 75 cities across 33 States/UTs of the country.
- SVANidhi Mahotsav is a festival for celebrating and recognizing beneficiary street vendor's growth story and their contribution towards Indian economy.

• The festival aims to celebrate 75 years of India's independence with these nano-entrepreneurs, honoring their journey under PM SVANidhi scheme for demonstrating credit discipline, digital behavior and displaying their astute business acumen.

PM SVANIDHI Scheme

- The scheme was launched on June 1, 2020 to facilitate working capital loans to the street vendors to help them restart their businesses which were adversely impacted due to the lockdowns imposed during COVID-19 pandemic.
- He further said that this scheme is the first comprehensive effort for financial inclusion of the street vendors.
- Prior to this Scheme, street vendors were dependent on the informal credit channels paying high rates of interest.
- 36.6 lakh loans have been sanctioned and 33.2 lakh loans have been disbursed.
- The amount disbursed so far is ₹3,592 Cr and about 12 lakh street vendors have repaid their first loan.

Features

- The scheme facilitates collateral free working capital loan upto ₹10,000, of 1 year tenure, with enhanced loan of ₹20,000 and ₹50,000 in the second and third term respectively, on repayment of earlier loans, to enable business expansion.
- The Scheme incentivizes adoption of digital transactions by way of cashback of upto ₹ 100 per month which in turn would build their credit profile facilitating future loans from the Lending Institutions
- The Scheme incentivises the repayment by way of 7% interest subsidy
- The structuring of the product was done in such a way that if a Street Vendors repays the loan EMIs promptly and conducts the required number of digital transactions, the **interest subsidy and the cashback availed would make the loan interest free.**

Mission Vatsalya Scheme

In News

The Ministry of Women and Child Development is implementing a Centrally Sponsored Scheme "Mission Vatsalya" erstwhile Child Protection Services (CPS) Scheme, since 2009-10 for the welfare and rehabilitation of children.

Objective-

- To secure a healthy and happy childhood for each and every child in India, ensure opportunities to enable them to discover their full potential and assist them in flourishing in all respects, in a sustained manner, foster a sensitive, supportive and synchronized ecosystem for development of children, assist States/UTs in delivering the mandate of the Juvenile Justice Act 2015 and achieve the SDG goals.
- **Mission Vatsalya** promotes family-based non-institutional care of children in difficult circumstances based on the principle of institutionalization of children as a measure of last resort.
- **Mission includes** Improve functioning of statutory bodies; Strengthen service delivery structures; Upscale institutional care/services; Encourage non-institutional community-based care; emergency outreach services; Training and capacity building.

Rashtriya Gokul Mission

In News

The Department of Animal Husbandry & Dairying has been implementing Rashtriya Gokul Mission (RGM) with the aim of development and conservation of indigenous bovine breeds, genetic upgradation of bovine population and

enhancement of milk production and productivity of bovines thereby making dairying more remunerative to the farmers.

Major Objectives

- To enhance productivity of bovines and increasing milk production in a sustainable manner using advance technologies
- To propagate use of high genetic merit bulls for breeding purposes.
- To enhance Artificial insemination coverage through strengthening of breeding network and delivery of Artificial insemination services at farmers doorstep
- To promote indigenous cattle & buffalo rearing and conservation in a scientific and holistic manner.
- In order to deliver breeding inputs at farmers doorstep so far 29,218 Multi-purpose Artificial Insemination Technicians in Rural Areas (MAITRIs) have been inducted.
- 16 Gokul Grams and 2 National Kamdhenu Breeding Centre have been established for development and conservation of Indigenous breeds in scientific and holistic manner.

Toyota Technical Education Program (T-TEP) initiative

In News

National Skill Development Corporation (NSDC) today announced the signing of a Memorandum of Understanding (MoU) with Toyota Kirloskar Motor [TKM] and Automotive Skill Development Council (ASDC) to train 18,000 students in three years.

About the Initiative

- Focus on rural areas, making them more employable through the company's unique training initiative — Toyota Technical Education Program (T-TEP).
- Students will be trained across five automotive job roles such as General Technician, Body and Paint Technician, Service Advisor, Sales consultants and Call Center Staff.
- Aimed at generating talented and technically skilled professionals for the automobile industry, T-TEP is strongly aligned with Skill India Mission and so far, been associated with 56 ITI/Polytechnic colleges covering 21 states.
- Currently more than 10,000 students have been trained and 70% of the students are working in various automobile companies.
- T-TEP has become a benchmark in imparting automotive training and providing immense benefits to the automotive service industry and society at large.
- By partnering with TKM and ASDC, NSDC will not only be able to build a highly skilled technical workforce, with greater career prospects in the automotive service industry, but also enable youngsters earn a decent livelihood by providing them with employment opportunities.
- As a part of this initiative, ASDC will identify the institute as per the requirements and Toyota will support the institute with latest curriculum covering automobile fundamentals, safety, Toyota values and basic soft skills.
- In addition, the company will provide e-learning content, engines, transmissions, practice kits and train the institute's faculty through Train The Trainer approach.

Pradhan Mantri Gram Sadak Yojana

In News

Pradhan Mantri Gram Sadak Yojana-I (PMGSY-I) was launched as a one-time special intervention to provide rural connectivity, by way of a single all-weather road, to the eligible unconnected habitations of designated population size.

Technologies under PMGSY

- **PMGSY-II** was launched for upgradation of selected Through Routes and Major Rural Links (MRLs) with a target to upgrade 50,000 Km in various states and Union Territories.
- In 2016, Road Connectivity Project for Left Wing Extremism Affected Areas (RCPLWEA) for construction/upgradation of strategically important roads was launched as a separate vertical under PMGSY.
- PMGSY-III launched in 2019 mainly focuses on the consolidation of 125000 Km existing through routes and Major Rural Links that connect habitations, inter-alia, to Gramin Agricultural Markets (GrAMs), Higher Secondary Schools and Hospitals.
- Use of new/green technologies is one such intervention which has resulted not only in savings of carbon footprint but also in savings of fuel.
- In order to promote cost-effective and fast construction technologies in the construction of rural roads, using New materials/Waste materials/Locally available materials, NRIDA has issued 'Guidelines on Technology Initiatives'.
- This initiative has helped introduce more than 40 technologies including waste plastics, cold mix technology, cell filled concrete, stabilization using cement and lime, nano technology and Full Depth Reclamation (FDR).
- Under PMGSY III, GeoSadak application has been developed, which is an Online Geospatial Transaction System that enables the States to upload, generate report and edit GIS data online.

NIPUN

In News

The Ministry of Housing and Urban Affairs has launched on June 20, 2022 an innovative project – **NIPUN** (National Initiative for Promotion of Upskilling of Nirman workers), as part of Deendayal Antyodaya Yojana – National Urban Livelihoods Mission (**DAY-NULM**).

NIPUN

- NIPUN, inter-alia, includes on-site Recognition of Prior Learning (RPL) of construction workers, and fresh skill training in job oriented courses in the construction and related sectors.
- This project aims to skill train over one lakh construction workers in the National Skills Qualifications Framework (NSQF) aligned courses, through a network of industry partners in construction sector and the related Sector Skill Councils (SSCs) i.e. Construction Skill Development Council of India (CSDCI), Water Management & Plumbing Skill Council (WMPSC) and Infrastructure and Equipment Sector skill Council (IESC).
- National Skill Development Corporation (NSDC) has been engaged as the implementation agency.
- The project, which is of 1 year duration, is estimated to cost ₹ 93 crore.

Mission Vatsalya Scheme

In News

Mission Vatsalya Scheme is a roadmap to achieve development and child protection priorities aligned with the Sustainable Development Goals (SDGs).

Features of the scheme

- It lays emphasis on child rights, advocacy and awareness along with strengthening of the juvenile justice care and protection system with the motto to 'leave no child behind'.
- The Juvenile Justice (Care and Protection of Children) Act, 2015 provisions and the Protection of Children from Sexual Offences Act, 2012 form the basic framework for implementation of the Mission.
- Funds under the Mission Vatsalya Scheme are released according to the requirements and demands made by the States/UTs.
- The Scheme is implemented as a Centrally Sponsored Scheme in partnership with State Governments and UT Administrations to support the States and UTs in universalizing access and improving quality of services across the country.
- The fund sharing pattern is in the ratio of 60:40 between Centre and State & Union Territories with Legislature respectively.
- **Mission Vatsalya scheme** supports the children through Non-Institutional Care under Private Aided Sponsorship wherein interested sponsors (individuals/ institutions/ company/ banks/ industrial units/ trusts etc.) can provide assistance to children in difficult circumstances.
- The District Magistrates take measures to encourage individuals or Public/ Private Sector Organisations to sponsor a child or a group of children or an Institution.

Operation Yatri Suraksha

In News

With the aim of improving the security of passengers travelling by Indian Railways, RPF has launched a Pan-India Operation under the code name "Operation Yatri Suraksha".

About operation

- As part of this initiative, several steps are being taken to provide foolproof security to passengers i.e. Train Escorting, visible presence on stations, Surveillance through CCTV, Surveillance on active criminals, collection of intelligence about the criminals and action thereupon, identifying black spots and crime prone trains/sections and enhancing security thereat among others to formulate an actionable strategy to reduce crime against passengers.
- Regular coordination is being made with all the stake holders and joint action is planned to improve passenger security regularly.

Significance

- During the drive, 365 suspects were nabbed by RPF personnel and were handed over to the concerned GRPs for legal action based on which 322 cases of Passenger Crime i.e. theft of Passenger Belongings, Drugging, Robbery, Chain Snatching etc. were detected.
- Stolen property of passengers worth more than Rs. 1 Crore was recovered either from the possession of these criminals or in course of investigation of these offences.

Village Engineers programme

In News

Minister of State for Skill Development and Entrepreneurship (MSDE) Shri Rajeev Chandrasekhar held discussions with Members of Parliament and Ministers from Gujarat on creating targeted skilling opportunities for the tribal youth in their local areas to reduce the pull for migration.

About the programme

- The programme which is consistent with Prime Minister Narendra Modi's vision of Self Reliance or AtmaNirbharta aims to ensure inclusive development for all communities.
- Recently, the village engineer programme was launched from Madhya Pradesh to train the tribal youth by providing them a basket of skills together.
- The first batch of village engineers have also been conferred recognition in form of certification.
- Under the programme, the tribal youth will get multiple skill training so that they can participate in the economic activities in their respective districts.

HIM- DRONE-A-THON

In News

The Indian Army in collaboration with the Drone Federation of India has launched the 'Him Drone-a-thon' programme recently.

About the programme

- This initiative in line with Atmanirbharta in defence manufacturing is aimed to catalyse and provide focused opportunities to the Indian drone ecosystem to develop path-breaking drone capabilities for meeting requirements of frontline troops.
- The Indian Army's support to the indigenous drone ecosystem is based on the principle that 'good available indigenously' is better than the 'best available globally'.
- The 'Him Drone-a-thon' programme is pan India sustained connect between all stake holders including industry, academia, software developers and drone product manufacturers.
- It will be conducted in stages with quantifiable parameters (like altitude, weight, range, endurance etc) being progressively enhanced based on demonstrated capabilities.

PM-SHRI Yojana

In News

On the occasion of Teacher's Day, the Prime Minister, Shri Narendra Modi has announced development and upgradation of 14,500 schools cross India under the Pradhan Mantri Schools For Rising India (PM-SHRI) Yojana.

PM-SHRI(PM Schools for Rising India)Yojana

- The PM-SHRI schools will have a modern, transformational and holistic method of imparting education.
- The PM-SHRI schools will further benefit lakhs of students across India in the spirit of NEP.
- The PM-SHRI schools will have a modern, transformational and holistic method of imparting education.
- Emphasis will be on a discovery oriented, learning centric way of teaching.
- Focus will also be on modern infra including latest technology, smart classrooms, sports and more.

Features

- Pedagogy adopted in these schools will be more experiential, holistic, integrated, play/toy-based (particularly, in the foundational years) inquiry-driven, discovery-oriented, learner-centred, discussion-based, flexible and enjoyable.
- Focus will be on achieving proficiency in learning outcomes of every child in every grade.
- Assessment at all levels will be based on conceptual understanding and application of knowledge to real life situations and will be competency-based.
- These schools will be equipped with modern infrastructure including labs, smart classrooms, libraries, sports equipment, art room etc. which is inclusive and accessible.
- These schools shall also be developed as green schools with water conservation, waste recycling, energyefficient infrastructure and integration of organic lifestyle in curriculum.
- They will provide leadership in their respective regions in providing high-quality education in an equitable, inclusive and joyful school environment that takes care of the diverse background, multilingual needs, and different academic abilities of children and makes them active participants in their own learning process as per the vision of NEP 2020.

Women in Engineering, Science, and Technology (WEST)

In News

A new I-STEM (Indian Science Technology and Engineering facilities Map) initiative called "Women in Engineering, Science, and Technology (WEST)" was launched by Dr. Parvinder Maini, Scientific Secretary, Office of the Principal Scientific Adviser (PSA) to the Government of India.

About WEST Initiative

- The WEST programme will cater to women with a STEM background and empower them to contribute to the science, technology, and innovation ecosystem.
- WEST is a new I-STEM (mapping of Indian Science Technology and Engineering) using a web portal for research sharing and promoting collaborations in R&D.
- I-STEM comes to under PM-STIAC Mission (allows scientific cross-sectoral collaboration and development).
- Through the WEST initiative, I-STEM shall provide a separate platform to scientifically inclined women researchers, scientists, and technologists for pursuing research in basic or applied sciences in frontier areas of science and engineering.

I-STEM

- I-STEM is a national web portal for sharing research equipment/facilities and is the umbrella under which many programmes for promoting collaborations in R&D and technological innovation among and between academia and industry, especially startups, are underway.
- I-STEM shall provide a platform/forum for women researchers to deliberate on achievements, issues, and exchange ideas on taking the country forward through advances in science, technology, and innovation.
- In addition, a digital consortium "Connect Quickly" for online discussion and immediate support has also been established through the I-STEM WhatsApp and Telegram platforms.

Rajasthan launches 100-day job scheme for urban areas

In News

Rajasthan chief minister Ashok Gehlot launched the 'Indira Gandhi Urban Employment Scheme' to provide 100 days of employment in a year to families residing in urban areas.

About the scheme

- The Scheme is open for people in the 18-60 age group. While unskilled labour will be provided a wage ₹259 per day, skilled workers will be given ₹283 each day and mates will be given ₹271 per day.
- **Objective**: Providing economic support to the poor and needy families living in the cities through work to be provided on demand for 100 days a year.
- Eligibility: Age group of 18 to 60 years residing within the limits of urban local bodies are eligible.
- Income limit: There is no income limit, though the poor and destitute people will be given preference.
- Categories of tasks- Environment protection
- Water conservation
- Heritage conservation
- Removal of encroachments and illegal boards etc

Ramakrishna Mission's 'Awakening' Programme

In News

Union Minister for Education and Skill Development & Entrepreneurship Shri Dharmendra Pradhan launched Ramakrishna Mission's 'Awakening' Programme for students of classes I to V.

About the programme

- Ramakrishna Mission has a legacy of imparting applied education. At a time when we are implementing NEP 2020, it must also lay emphasis on creating such value-based educational programmes for 9th to 12th in addition to creating programmes for classes I to VIII.
- He said that this unique initiative is a step towards ensuring holistic personality development of a child aligned with the philosophy of NEP 2020.
- NEP 2020 with focus on a teacher-led holistic education system for students is a step in that direction.

PM's Scheme for Mentoring Young Authors – YUVA 2.0

In News

The Ministry of Education, Department of Higher Education, launched YUVA 2.0 - Prime Minister's Scheme for Mentoring Young Authors.

YUVA 2.0

- An Author Mentorship programme to train young and budding authors (below 30 years of age) in order to promote reading, writing and book culture in the country, and project India and Indian writings globally.
- The launch of **YUVA 2.0** (**Young, Upcoming and Versatile Authors**) is in tune with the Prime Minister's vision to encourage the youth to understand and appreciate India's democracy.
- YUVA 2.0 is a part of India@75 Project (Azadi Ka Amrit Mahotsav) to bring to the fore the perspectives of the young generation of writers on the THEME : 'Democracy (institutions, events, people, constitutional values past, present, future)' in an innovative and creative manner.

- This scheme will thus help to develop a stream of writers who can write on a spectrum of subjects to promote Indian heritage, culture and knowledge system.
- The National Book Trust, India, under the Ministry of Education as the Implementing Agency will ensure phase-wise execution of the Scheme under well-defined stages of mentorship.
- The books prepared under this scheme will be published by National Book Trust, India, and will also be translated into other Indian languages ensuring the exchange of culture and literature, thereby promoting **'Ek Bharat Shreshtha Bharat'**.

Significance

- The scheme will help to develop a stream of writers who can write on various facets of **Democracy in India** encompassing the past, present and future.
- Besides, it will also provide a window to the aspiring youth to articulate themselves and present a comprehensive outlook of Indian Democratic values at domestic as well as international platforms.
- This scheme has been conceptualized on the premise that the 21st century India needs to groom a generation of young authors to create ambassadors of Indian literature.

India's first Green Technology incubation facility opened at NIT Srinagar

In News

At the National Institute of Technology (NIT) Srinagar, a technology company incubator centred on green technology (Green Technology incubation facility) called the "Greenovator Incubation Foundation" will soon open.

Green Incubation Centre

- All of the money required to establish the Green Technology incubation facility centre will be provided by the Department of Science and Technology. Startups will have access to the co-working space, which includes conference spaces, a prototype lab, and other amenities.
- In addition to office space, financial support in the form of seed money would be provided on an individual basis with equity in accordance with DST criteria.
- Saad Parvez, the center's CEO, described the forthcoming centre as the first of its type in the area and claimed that it would foster ideas that would lead to entrepreneurship and self-employment.
- Saad Parvez continued by saying that this will be India's first green technology incubation centre. Aside from the softer aspects of GreenTech that fit with the theme of the valley, the proposed incubator would address some of the issues that have the potential to alter the socioeconomic standing of the valley and produce innovations that could be applied to other markets, increasing the likelihood of interstate trade and commerce.

HARIT Aaykar

In News

- The Income Tax Department has launched the HARIT Aaykar (Hariyali Achievement Resolution by Income Tax) initiative.
- Under this initiative, the Department resolves to increase the green cover by planting trees and creating micro-forests in and around Income Tax Department's buildings and other public areas.

About the Initiative

• Launched by: Central Board of Direct taxes

- Objectives: to increase the green cover by planting trees and creating micro-forests in and around Income Tax Department's buildings and other public areas.
- Further, the Department would continue to welcome dignitaries at events and programmes organized by it, with potted plants or a single stalk of a flower.
- The first of such micro-forests has been inaugurated near the Attari border in Punjab.

Micro -Forests

- It is a small, planted forest that maximises tree density and biodiversity.
- Achieving this goal requires planting a wide variety of plants in a fairly dense manner so that the plot of land has different layers of a forest such as shrubs and canopies and not just trees.
- Plants typically require anywhere between eight to nine months of care before reaching a point where the micro forest becomes self-sustaining.

Scheme for Financial Support for Project Development Expenses

In News

The Department of Economic Affairs (DEA), Ministry of Finance, Government of India, notifies Scheme for Financial Support for Project Development Expenses of PPP Projects – India Infrastructure Project Development Fund Scheme (IIPDF Scheme).

About IIPDF Scheme

- The India Infrastructure Project Development Fund Scheme (IIPDF) was launched by the Department of Economic Affairs (DEA).
- This central sector scheme extends financial aid required for the development expenses of Public Private Partnership (PPP) projects.
- It provides funding for project sponsoring authorities (both in the central and state governments) to access services provided by Transaction Advisors (TAs) and consultants involved in the development of the PPP projects.
- This will help effectively implement bankable viable PPP projects that seek to modernize infrastructure in India.
- The total corpus of the India Infrastructure Project Development Fund is 150 crore for three years.
- The new scheme is an addition to the currently operational Scheme for Financial Support to PPPs in Infrastructure (VGF Scheme), which was notified in December 2020.

About VGF Scheme

- The Scheme for Financial Support to Public Private Partnerships (PPPs) in Infrastructure Viability Gap Funding (VGF) was launched by the Department of Economic Affairs in 2006 to provide funding for PPP infrastructure projects that are economically justified but not commercially viable because of large capital requirements.
- The Viable Gap Funding (VGF) of 40 per cent of the Total Project Cost (TPC) is provided by the Indian Government and the sponsoring authority in the form of capital grant at the construction stage of the project.

NCW launches Digital Shakti 4.0

In News

The National Commission for Women (NCW) launched the fourth phase of Digital Shakti Campaign, a pan-India project on digitally empowering and skilling women and girls in the cyberspace recently.

Digital Shakti Campaign

- The Digital Shakti Campaign is a national-level campaign that was launched in 2018 to digitally empower and skill women and girls to ensure their safety in cyberspace.
- Through this initiative, over 3 lakh women across India have been made aware of cyber safety measures, reporting and redressal mechanisms, data privacy and technology usage.
- The third phase of this initiative was launched in March last year. It was launched in Leh by the National Commission for Women (NCW).
- In this phase, a Resource Center was developed to provide information about available avenues for reporting in case a woman becomes a victim of a cyber crime.
- The **Digital Shakti 4.0** aims to make women digitally skilled and aware to stand up against illegal or inappropriate activities occuring in the cyberspace.
- It was launched by the NCW in collaboration with the CyberPeace Foundation and Meta.

Reason for launching

- Over the past decade, there has been a surge in the number of cybercrimes in India.
- A majority of these crimes targeted women. Some of the reasons behind this are prevalence of huge gender inequality and the lack of digital literacy.
- Also, most of the women who are victims of cybercrimes do not file complains due to the absence of support from family or law enforcement and the lack of awareness.

PM Launches Karmayogi Prarambh Module

In News

Prime Minister Narender Modi launched the Karmayogi Prarambh Module for all who are appointed under Rojgar Mela.

About Module

- The Karmayogi Prarambh module is an initiative under the Mission Karmayogi.
- It is an online orientation course for the new recruits of various government departments.
- It will help new government employees to understand the code of conduct required to adapt to the new role.
- Ethics in the workplace, integrity, human resource policies and other benefits, allowances, etc., are some of the topics focused on by the module.
- The objective of this online orientation programme is to keep the essence of civil service within the people of the country.

Karamyogi Mission

- National Programme for Civil Services Capacity Building (NPCSCB) was launched on September 20, 2020, to reform Indian bureaucracy at the individual, institutional and process levels for enhance public service delivery.
- It aims to upgrade the post-recruitment training mechanism of government officers and employees at all levels.
- This initiative is governed by Prime Minister's Human Resource Council, which includes chief ministers, union cabinet ministers and experts.

Horticulture Cluster Development Programme

In News

Recently, a meeting was held by the Union Ministry of Agriculture and Farmers Welfare for the Horticulture Cluster Development Programme (CDP).

About the programme

- It is a central sector programme aimed at growing and developing identified horticulture clusters to make them globally competitive.
- Horticulture cluster is a regional/geographical concentration of targeted horticulture crops.
- It is implemented by the National Horticulture Board (NHB) of the Ministry of Agriculture and Farmers' Welfare.
- The states of Arunachal Pradesh, Assam, West Bengal, Manipur, Mizoram, Jharkhand, Uttarakhand etc. will also be included in the list of 55 clusters, identified with their focus/main crops.
- Earlier, in pilot phase, it was implemented in 12 clusters covering 11 States/UTs.

Objectives

- The CDP aims to improve exports of targeted crops by about 20% and create cluster-specific brands to enhance the competitiveness of cluster crops.
- To address all major issues related to the Indian horticulture sector including pre-production, production, post-harvest management, logistics, marketing and branding.
- To leverage geographical specialisation and promote integrated and market-led development of horticulture clusters.
- To converge with other initiatives of the Government such as the Agriculture Infrastructure Fund.
- A lot of investment will also come in the horticulture sector through CDP.

Status of Horticulture in India

- India is the second-largest producer of horticulture crops globally.
- India is a leader in producing fruits like Mango, Banana, Pomegranate, Sapota, Acid Lime and Aonla.
- In 2021-22, Uttar Pradesh followed by Madhya Pradesh and West Bengal were the top states in horticulture production.
- West Bengal, Uttar Pradesh and Madhya Pradesh were the top States in vegetable production.
- Maharashtra followed by Andhra Pradesh and Uttar Pradesh were the top states in fruit production.
- The area under horticulture crops increased to 27.74 million hectares in 2021-22, and produced around 341.63 million tonnes.

DigiYatra facilities starts at the Delhi, Varanasi and Bangalore airport

In News

The Central government on December 1 launched its facial recognition system DigiYatra at Delhi, Bangalore and Varanasi airports, which will allow domestic passengers to seamlessly travel without an identification card.

Digiyatra

• DigiYatra is based on facial recognition technology and will make the boarding process faster and seamless. Passengers will have to register on the DigiYatra app through their respective Aadhaar cards to avail the service.

- The initiative will automate the entry and verification of passengers at all airports checkpoints and will use facial features to establish a traveller's identity and link it to their respective boarding passes.
- This will result in shorter wait times in lines, quicker processing times, and simpler procedures for the passengers.

Implementation

- The project is being implemented by the DigiYatra Foundation under the Ministry of Civil Aviation.
- DigiYatra Foundation is a joint-venture company whose shareholders are the Airports Authority of India and Bengaluru Airport, Delhi Airport, Hyderabad Airport, Mumbai Airport and Cochin International Airport.

Significance

- Facial recognition technology is beneficial as it makes flying more convenient and reduces congestion at airports.
- The facial recognition system at various airports across the globe, including Dubai, Singapore, Atlanta and Narita (Japan), have helped bring in efficiency.
- Result in lower cost operations.
- Digitize current manual processes and to bring better efficiencies.
- Enhance security standards and improve current system performance.

Community Innovator Fellowship

In News

Atal Innovation Mission (AIM), NITI Aayog recently announced the launch of applications for Community Innovator Fellowship (CIF), an initiative of Atal Innovation Mission, NITI Aayog in collaboration with UNDP India to facilitate knowledge building and provide infrastructure support to aspiring community innovators essential for their entrepreneurship journey.

About CIF

- Its aim is to facilitate knowledge building and provide infrastructure support to aspiring community innovators and help them in their entrepreneurial journey.
- This is a one-year-long fellowship program that will provide assistance for innovators involved in solving challenges faced by communities.
- Any community innovators between the age of 18 to 35 can apply for this program irrespective of their socio-economic background. The community innovator must have a bachelor's, diploma, or degree in any field from a government-recognized institution.
- This initiative seeks to provide conducive environment that promotes knowledge, mentorship, community immersion and inclusion through infrastructure and funding support.
- Under this initiative, the fellows will work on their concept while staying at an Atal Community Innovation Center (ACIC) and learning about the 2030 Sustainable Development Goals, developing their entrepreneurial abilities, and developing life skills.
- The community innovator fellows go through 5 phases under this initiative. The content and curriculum for the five phases are curated on the Digital Learning Platform an online learning platform having an array of world-class courses focusing on different thematic areas.

About AIM

• The Atal Innovation Mission is the flagship program launched by the Indian government in 2016.

• The mission aims for holistic approach to creating a problem-solving environment in the schools there, providing them with an ecosystem of startups and entrepreneurship in the universities' research institutions and various MSME sectors

QR Codes for LPG Cylinders

In News

A pilot study for QR code tagging of cylinders has been undertaken by Indian Oil Corporation Ltd. (IOCL) at Madanpur Khadar Bottling Plant, Delhi.

Working of QR Code

- It will be launched by the Indian Oil Corporation Limited (IOCL) to help prevent gas theft from LPG gas cylinders, solve issues of adulteration, unfair practices, pilferage, tracking, tracing and ensure better inventory management of the cylinders.
- QR Code will be posted on existing cylinders and welded on new ones.
- QR code can be read by a digital device
- It is likely to work in the same way as the Aadhar card.
- The LPG customers will be able to access information about the purchased cylinder such as where it was bottled, who is the dealer, when it was manufactured, refiling, safety tests, locating stolen cylinders, among other details.

QR Code

- A QR code consists of black square and dots.
- They store information in both vertical and horizontal axes, which allows them to hold significantly more data.

Centre extends free foodgrains under National Food Security Act

In News

Union Cabinet has approved providing free foodgrains under the National Food Security Act till December 2023.

NFSA

- Around 81.35 crore beneficiaries who earlier used to procure foodgrains at subsidised rates will now get the foodgrains free of cost.
- The Centre would bear the entire cost amounting to around 2 lakh crore rupees per year.
- The NFSA assigns joint responsibilities to the federal and state governments.
- The NFSA mandates the centre with the responsibility of allocating and transporting food grains to designated depots in the states and UTs.
- The centre must provide central assistance to states/UTs for the distribution of food grains from authorized FCI go downs to the doorsteps of Fair Price Shops.
- States and union territories are responsible for identifying eligible households, issuing ration cards, distributing foodgrain entitlements through fair price shops, licensing and monitoring Fair Price Shop (FPS) dealers, establishing an effective grievance redress mechanism, and strengthening the Targeted Public Distribution System (TPDS).

Objective

To provide for food and nutritional security in the human life cycle approach, by ensuring access to adequate quantities of quality food at affordable prices to people to live a life with dignity.

Coverage

- The Act provides coverage for nearly 2/3rd of the country's total population, based on Census 2011 population estimates.
- 75% of rural and 50% of urban population is entitled to receive highly subsidized food grains under two categories i.e Antyodaya Anna Yojana(AAY) households and Priority Households (PHH).
- The Act entitles 35 kg of food grains as per Antyodaya Anna Yojana Households per month, whereas 5kg of food grains per Priority Households per person.
- The eldest woman of the beneficiary household (18 years or above) is considered 'Head of Family' for the purpose of issuing ration cards.

"Womaniya" initiative

In News

A function was held to commemorate the success of "Womaniya on Government eMarketplace (GeM)" recently at Constitution Club in New Delhi.

About the Initiative

- Launched in 2019, the "Womaniya" initiative has sought to encourage the participation of women entrepreneurs and self-help groups (SHG) from the informal sector on the GeM portal and facilitate the sale of their products directly to various Government buyers, sans intermediaries.
- Presently, 1.44 lakh+ Udyam-verified women micro, small enterprises (MSE) known as "Womaniya" are registered as sellers and service-providers on the GeM portal.
- The **objective** of "Womaniya" is to develop women entrepreneurship on the margins of society who face challenges in accessing public procurement markets, and work towards achieving gender inclusive economic growth of under-served seller groups such as such as women-owned and led MSEs, tribal entrepreneurs, Divyangjan, Startups, SHGs, artisan and weavers.
- "Womaniya" neatly aligns with the Government's initiative to set aside a target of three percent (%) in public procurement for women-owned and led MSEs.
- The "Womaniya" initiative seeks to address the triple challenge of "access to markets", "access to finance" and "access to value-addition" faced by women entrepreneurs and strives to align the untapped entrepreneurial energy of last-mile producers and service-providers in India with local Government buyers.

U-WIN Platform

In News

The government has now replicated the Co-WIN platform to establish an electronic registry for routine vaccinations.

U-WIN Platform

- It is a replica of Co-WIN.
- Co-Win has been the backbone of India in administering COVID vaccine to the citizens.
- The platform allows users to register for vaccination slots. It holds every detail about the user being vaccinated.

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- It also has information about the next vaccination due.
- GoI launched the U WIN platform based on the huge success of the Co–Win platform.

Features

- The platform will be used to register and vaccinate each pregnant woman, record her delivery outcome, register each newborn delivery, administer birth doses, and record all subsequent vaccination events.
- Beneficiaries would be able to schedule vaccination appointments in advance.
- Additionally, it will permit mobility.
- It will also hold information about antigen coverage. The antigen is a foreign substance to the human body.
- All states and districts will be able to access a common database to track and vaccinate beneficiaries.

About UIP

- It was first introduced in 1985, and in 1992 it was integrated into the Child Survival and Safe Motherhood Program.
- It became a part of the National Reproductive and Child Health Programme in 1997.
- The Universal Immunization Programme (UIP) has always been a crucial component of the National Rural Health Mission since its inception in 2005.

Defence & Security

INDIAN NAVY PASSEX WITH RUSSIAN NAVY

In News

The Indian Navy's indigenously designed and built guided-missile destroyer, INS Kochi, exercised with Russian Federation Navy's RFS Admiral Tributs in the Arabian Sea.

About Passex Exercise

- The Indian Navy conducts PASSEX exercises regularly with units of friendly foreign navies.
- The exercise showcased cohesiveness and interoperability between the two navies and included tactical maneuvers, cross-deck helicopter operations and seamanship activities.
- The Exercise reflects the strong long-term strategic relationship between the countries and particularly in defence cooperation in the maritime domain.
- India has conducted PASSEX Exercises with the US, Russia, the UK, Indonesia and others.

The BrahMos Supersonic cruise missile

In News

The BrahMos supersonic cruise missile with increased indigenous content and improved performance was successfully test-fired from an integrated test range.

About Brahmos Missile

- BrahMos is a joint venture between the Defence Research and Development Organisation of India (DRDO) and the NPOM of Russia.
- BrahMos is named on the rivers Brahmaputra and Moskva
- It is a two-stage (solid propellant engine in the first stage and liquid ramjet in second) missile.

• It is a multiplatform missile i.e it can be launched from land, air, and sea and multi capability missile with pinpoint accuracy that works in both day and night irrespective of the weather conditions.

Pashchim Lehar

In News

A joint military exercise named Pashchim Lehar was conducted by the Indian Navy off the west coast and has been concluded.

About the Exercise:

- The exercise was carried out with an objective to validate the operational plans of the Western Naval Command accompanied by the increase in inter-service synergy among the Indian Navy, Indian Air Force, Indian Army and Coast Guard.
- It was supported by the Flag Officer Commanding-in-chief of the Western Naval Command.
- This intra-theatre exercise included the mobilisation and participation of over 40 ships and submarines of the Indian Navy.
- The Indian Air Force deployed SU 30 MKI & Jaguar maritime strike aircraft, Flight Refuelling Aircraft.
- The maritime reconnaissance aircraft P8I, Dorniers, IL 38 SD, unmanned aerial systems and MiG 29K (Russian all-weather carrier-based multirole fighter aircraft) strike aircraft were also deployed.

AFSPA Extended in Nagaland

In News

The Konyak Civil Society Organizations, the guardian umbrella of organizations of the Konyaks, has slammed the extension of the Armed Forces (Special Powers) Act of 1958 (AFSPA).

About AFSPA

- A reincarnation of the British-era legislation that was enacted to quell the protests during the Quit India movement, the AFSPA was issued by way of four ordinances in 1947.
- The ordinances were replaced by an Act in 1948 and the present law effective in the Northeast was introduced in Parliament in 1958 by the then Home Minister, G.B. Pant.
- It was known initially as the Armed Forces (Assam and Manipur) Special Powers Act, 1958.
- The ASFPA gives unfettered powers to the armed forces and the Central armed police forces deployed in "disturbed areas" to kill anyone acting in contravention of law and arrest and search any premises without a warrant and with protection from prosecution and legal suits.
- The law first came into effect in 1958 to deal with the uprising in the Naga Hills, followed by the insurgency in Assam.

Disturbed Areas:

- The Act was amended in 1972 and the powers to declare an area as "disturbed" were conferred concurrently upon the Central government along with the States.
- Currently, the Union Home Ministry issues periodic "disturbed area" notification to extend AFSPA only for Nagaland and Arunachal Pradesh.

INS Vikrant

In News

The Vice President, Shri M. Venkaiah Naidu, visited India's indigenous aircraft carrier, INS Vikrant in Kochi. Calling the carrier a 'great icon for our drive towards Atma Nirbhar Bharat', Shri Naidu said the INS Vikrant is a realisation of the nation's dream of an indigenous carrier.

INS Vikrant

- INS Vikrant, is likely to be commissioned in 2022. At present, India has only one aircraft carrier, the Russianorigin INS Vikramaditya.
- It will have an air component of 30 aircraft, comprising MiG-29K fighter jets, Kamov-31 airborne early warning helicopters and the soon-to-be-inducted MH-60R multi-role helicopter, besides the indigenous Advanced Light Helicopters.
- It is expected to have a top speed of 30 knots (approximately 55 kmph) and is propelled by four gas turbines. Its endurance is 7,500 nautical miles at 18 knots (32 kmph) speed.
- The shipborne weapons include Barak LR SAM and AK-630, while it has MFSTAR and RAN-40L 3D radars as sensors. The vessel has a Shakti EW (Electronic Warfare) Suite.

Sea Dragon 22 exercise

In News

Recently, the US Sea Dragon 22 exercise began along with the navies of India, Australia, Canada, Japan and South Korea in the Pacific Ocean.

About Sea Dragon Exercise

- Sea Dragon is a US-led multi-national exercise designed to practice and discuss Anti-submarine warfare tactics to operate together in response to traditional and non-traditional maritime security challenges in the Indo-Pacific region.
- It is an annual exercise.
- The exercise assumes significance in the face of strained relations that some countries have with China and the growing forays of the PLA-Navy into the Indian ocean region.
- The Indian Navy has recently inducted two more Poseidon 8I maritime reconnaissance and anti-submarine warfare aircraft, which would further boost its ability to keep an eye over the Chinese ships and submarines in the region.

'Beating Retreat' Ceremony 2022

In News

The Beating retreat ceremony culminated the Republic Day week at the national capital.

About the Beating Retreat Ceremony:

- This ceremony has been an integral part of the celebrations which are of national importance.
- The event was held at Vijay Chowk in New Delhi and was addressed by the President of India and Supreme Commander of the armed forces.
- The Beating retreat ceremony in 2022 will be marked on a grand scale to commemorate 75 years of Independence which is famous as 'Azadi ka Amrit Mahotsav'.
- It is a centuries-old military tradition that dates back to the days when troops disengaged from the battle at sunset.

11th India-Oman Joint Military Cooperation Committee Meeting

In News

11th India-Oman Joint Military Cooperation Committee Meeting was held in New Delhi to enhance bilateral defence collaboration.

About JMCC:

- The Joint Military Cooperation Committee (JMCC) acts as the apex body between the ministries of India and Oman.
- This committee reviews the India-Oman relationship through meetings held annually.
- This body reviews and guides all areas of bilateral defence cooperation.
- The JMCC has agreed to initiate a series of high-level defence engagements between the two countries.
- The 11th meeting of JMCC was co-chaired by the Defence Secretary of India and the Secretary-General of Defence, Oman.

India-Oman Defence Cooperation:

- Oman is India's closest defence partner in the Gulf region.
- Naseem al Bahr is a biennial maritime exercise between the two countries involving the Indian Navy and the Royal Navy of Oman.
- The naval forces of both countries signed an MoU on the exchange of white shipping information. This will enable information exchange on merchant shipping traffic through an Information Fusion Centre in Gurugram along with the dissemination of data with partner countries maintaining the safety and security of the Indian Ocean Region.
- Besides, the port of Duqm in Oman has offered facilities to the Indian Navy through two critical MoUs ensuring maritime security in the Western Indian Ocean Region.
- Oman provides critical operational support to Indian naval deployments in the Arabian sea for anti-piracy missions.

MILAN - 2022

In News

The multilateral exercise of the Indian Navy will commence from the 25th day of February in Visakhapatnam. This exercise is popular as MILAN 2022.

The MILAN Exercise: The background

- It is a biennial multilateral naval exercise that took its advent in 1995 by the Indian Navy at Andaman and Nicobar Command.
- This event could not be held in 2001 and 2016 due to International Fleet Reviews.
- At its onset, the MILAN exercise witnessed the participation of only four countries, Indonesia, Singapore, Sri Lanka and Thailand.
- Gradually, there was a significant increase in the number of participants along with the expansion of advanced maritime policies that intend to ensure security and safety of the oceanic space.
- With the expansion of the Indian Navy's engagement with Friendly Foreign Countries, there was a need to further strengthen the naval cooperation by enhancing the scope of the MILAN exercise bringing together both regional and extra regional navies of the world.
- Visakhapatnam, being the headquarters of the Eastern Naval Command, was nominated to host the event.
- Aim-The multilateral exercise intends to nurture operational skills, introduce best practices and procedures enabling a learning environment on maritime domain and the relative doctrines.

Exercise Eastern Bridge –VI

In News

The Indian Air Force (IAF) and Royal Air Force of Oman (RAFO) are scheduled to participate in a bilateral exercise named Eastern Bridge-VI.

Exercise Eastern Bridge -VI:

- Exercise Eastern Bridge -VI is the sixth edition of the exercise between India and Oman.
- Aim: To provide an opportunity to enhance operational capability and interoperability between the two Air Forces.

MAROON BERET CEREMONIAL PARADE

In News

To mark the successful completion of training for Air Force Special Forces Operatives of Garud Force, the Maroon Beret Ceremonial Parade was held.

Maroon Berets

- The maroon beret is a military beret and has been an international symbol of elite airborne forces since it was chosen for British airborne forces in World War II.
- These are the Parachute Regiment soldiers set up before independence and participated in the Second World War.
- They are known as "Maroon Berets" because of their characteristic maroon caps.
- All para qualified personnel in an airborne formation wear the maroon beret along with the Parachute Regiment and the President's Bodyguard, a ceremonial guard unit with their operational role as the pathfinder company of the parachute brigade.
- The MARCOS (Marine Commandos) of the Indian Navy are all para qualified and wear the maroon beret.
- The Indian Air Force's special operations force and Garud Commando Force wear the maroon beret.

LCA TEJAS

In News

LCA TEJAS to participate in the Singapore Airshow -2022

About LCA Tejas

- The Light Combat Aircraft (LCA) programme was started by the Government of India in 1984 when they established the Aeronautical Development Agency (ADA) to manage the LCA programme.
- It replaced the ageing Mig 21 fighter planes.

Features

- The lightest, smallest and tailless multi-role supersonic fighter aircraft in its class.
- Designed to carry a range of air-to-air, air-to-surface, precision-guided, weapons.
- Air to air refuelling capability.
- Maximum payload capacity of 4000 kg.

Modernisation of Police Forces (MPF) Scheme

In News

The Government has approved the continuation of Modernisation of Police Forces scheme.

Major features of MPF Scheme

- To develop operationally independent high-quality forensic sciences facilities in States/Union Territories for aiding scientific and timely investigation through modernization of resources.
- A central outlay of Rs.18,839 crore has been earmarked for security related expenditure for Jammu & Kashmir and insurgency affected North Eastern States and Left Wing Extremism (LWE) affected areas.

- With the implementation of the 'National Policy and Action Plan' for combating LWE, the LWE violence incidents have come down drastically.
- These schemes include Special Central Assistance (SCA) to Most LWE Affected Districts & Districts of Concern to consolidate the gains.
- For raising of India Reserve Battalions, Central outlay of Rs.350 crore has been approved.

46th Raising day of Indian Coast Guard

In News

The Coast Guard Component, on the occasion of 46th raising day, has been congratulated by the Commander-inchief Andaman and Nicobar Command (CINCAN) for its relentless service towards safeguarding India's oceanic space.

About ICG

- The year 2022 marks the 46th Raising Day of the Indian Coast Guard which was founded on the 1st of February 1978.
- ICG was established in August 1978 by the Coast Guard Act, 1978 as an independent Armed force of India.
- As the fourth largest Coast Guard in the world, it has played a significant role in securing the Indian coasts and enforcing regulations in the maritime zones of India.
- It is an Armed Force, Search and Rescue and Maritime Law Enforcement agency under the Ministry of Defence.
- It is headquartered in New Delhi.

'Vagir': The Fifth Scorpene Submarine

In News

The sea trials for the fifth scorpene submarine of Project 75 commenced after which it will be named 'Vagir'.

About Vagir:

- Vagir is the fifth Scorpene (Kalvari) class submarine constructed by Mazagon Dock Shipbuilders Limited in collaboration with the Naval Group of France.
- This is one of the submarines under Project 75 with superior stealth features.
- It is equipped with advanced acoustic techniques.
- The submarine was named after INS Vagir which was a Russian Vela-class submarine that served in the Navy for a long time.
- This is capable of undertaking missions like anti-surface warfare, anti-submarine warfare, intelligence gathering, mine laying and area surveillance.

About Project 75

- There are six submarines of the Scorpene class which are to be constructed at the Mazagon Dock Shipbuilders Limited.
- INS Kalvari and INS Khanderi are two submarines under the project which have been commissioned.

EXTENDED RANGE BRAHMOS LAND ATTACK MISSILE

In News

The Indian Navy successfully demonstrated the accuracy of an extended-range land attack Brahmos supersonic cruise missile from the stealth destroyer INS Chennai.

Details

- The missile hit its intended target with pinpoint accuracy after traversing an extended range trajectory and performing complex manoeuvres.
- Both Brahmos missile and INS Chennai are indigenously built and highlight the cutting-edge of Indian missile and ship-building prowess.
- They reinforce the Indian Navy's contribution towards the AtmaNirbhar Bharat and Make in India endeavours.
- This achievement establishes the Indian Navy's ability to strike even deeper and influence land operations further away from sea, when and where required.

About Brahmos Missile

- BrahMos is a joint venture between India's Defence Research and Development Organisation (DRDO) and Russia's NPO Mashinostroyeniya.
- The missile derives its name from the Brahmaputra and Moskva rivers.
- Beginning with an anti-ship missile, several variants have since been developed and it is now capable of being launched from land, sea, sub-sea and air against surface and sea-based targets and has constantly been improved and upgraded.
- The missile has been long inducted by the Indian armed forces and the Army recently deployed BrahMos along the Line of Actual Control (LAC) in Arunachal Pradesh.
- The range of the BrahMos was originally limited to 290 kms as per obligations of the Missile Technology Control Regime (MTCR) of which Russia was a signatory.

MULTILATERAL NAVAL EXERCISE MILAN 22 CONCLUDES

In News

The sea phase of the 11th edition of MILAN which witnessed participation of 26 ships, one submarine and 21 aircraft, culminated on 04 Mar 22.

Details

- The Navy's Milan 2022, the largest-ever edition of the exercise that will see the participation of 40 countries, including all major navies of the world.
- Theme- Camaraderie Cohesion Collaboration' which "aims to project India as a responsible maritime power to the world at large".
- A multilateral exercise, Milan began in 1995 with the participation of only four countries Indonesia, Singapore, Sri Lanka and Thailand.
- Until now, it was held at the Andaman and Nicobar Command, but given the large number of participants this time, it was shifted to the Eastern Naval Command, which offers larger sea room.
- Originally conceived in consonance with India's 'Look East Policy', MILAN expanded in ensuing years with India's 'Act East policy' and Security And Growth for All in the Region (SAGAR) initiative, to include participation from island nations in the Western IOR (Indian Ocean Region) as also IOR littorals.

Indo-Pacific Military Health Exchange conference

In News

Raksha Mantri Shri Rajnath Singh virtually inaugurated, the four-day Indo-Pacific Military Health Exchange (IPMHE) conference co-hosted by Armed Forces Medical Services (AFMS) and US Indo-Pacific Command (USINDOPACOM).

Details

- The theme of the conference is 'Military Healthcare in a Volatile, Uncertain, Complex and Ambiguous (VUCA) World'.
- Shri Rajnath Singh described medical service as an important pillar for any military.
- The conference, which will continue till March 10, 2022, aims to enhance cooperation and jointmanship in military medicine.
- It will cover many important topics including operational/combat medical care, tropical medicine, field surgery, field anaesthesia, aviation & marine medicine emergencies etc.
- The conference is attended by more than 600 Indian and foreign delegates from over 38 countries.
- A delegation of 20 members from the organising committee of the USINDOPACOM is in New Delhi to co-host the conference.
- The delegates and speakers will interact and share experiences over the four days on 110 topics.
- The idea of Indo-Pacific reflects the sentiment of 'Vasudhaiva Kutumbakam' (the world is one family).
- To make the impact of military medicine more meaningful, Armed Forces of various countries and the USINDOPACOM have created an important platform in the form of this conference for sharing experiences and facilitate gainful learning.
- The Raksha Mantri stressed on the importance of military medicine and the need for increased cooperation among countries in issues that affect the health of the world.

EX-DUSTLIK

In News

- The 3rd edition of joint training exercise between Indian and Uzbekistan armies, EX-DUSTLIK is being conducted at Yangiarik, Uzbekistan from 22 to 31 March 2022.
- The last edition of DUSTLIK was conducted in Ranikhet (Uttarakhand) in March 2021.

About Exercise

- The joint exercise would focus on Counter Terrorism operations in semi-urban terrain under a United Nations Mandate.
- The training schedule will focus primarily on sharing of tactical level drills and learning of best practices from each other.
- The exercise aims at enhancing understanding, cooperation and interoperability between two armies.
- The exercise will culminate in a 24 hour long validation exercise which will be a test bed for the soldiers of both armies as they would be undergoing the challenges of simulated operations in such scenarios.

Prasthan Exercise

In News

An offshore security exercise, 'Prasthan' was conducted in the Offshore Development Area (ODA) off Mumbai on 23 March 2022, under the aegis of Headquarters, Western Naval Command.

About Exercise

- Conducted every six months, this exercise is an important element of ensuring offshore security and aims to integrate efforts of all maritime stakeholders involved in offshore defence.
- The day-long exercise resulted in refining standard operating procedures (SOPs) and response-actions to a number of contingencies in the Offshore Defence Area off Mumbai.
- The exercise was conducted on the B-193 platform of ONGC located about 38 nm west of Mumbai.

- Contingencies such as terrorist intrusion, bomb explosion, casualty evacuation, search and rescue, man overboard, major fire, oil spill and mass evacuation were exercised.
- The exercise provided all stakeholders a realistic experience to assess their readiness to respond and combat contingencies in the Western ODA, as also to operate together in a coordinated and synergised manner.

Medium Range Surface to Air Missile (MRSAM)

In News

Defence Research and Development Organisation (DRDO) conducted two successful flight tests of the Indian Army version of Medium Range Surface to Air Missile (MRSAM) at Integrated Test Range, Chandipur off the coast of Odisha.

About MRSAM

- This MRSAM version is a Surface-to-Air Missile developed jointly by DRDO and Israel Aerospace Industries (IAI), Israel for use by the Indian Army.
- The MRSAM Army weapon system comprises multi-function radar, mobile launcher system and other vehicles. The flight tests were carried out with the weapon system in deliverable configuration.
- The successful tests established the capability of the weapon system in intercepting targets at critical ranges.

IONS MARITIME EXERCISE 2022 (IMEX 22)

In News

- The maiden edition of Indian Ocean Naval Symposium (IONS) Maritime Exercise 2022 (IMEX-22) was conducted at Goa and in Arabian Sea from 26 30 Mar 22.
- AIM-of the exercise was to enhance interoperability in Humanitarian Assistance and Disaster Relief (HADR) operations among member navies. The exercise witnessed participation of 15 out of the 25 member nations of IONS.

About IMEX 22

- IMEX 22 comprised a Harbour Phase at Marmugao port, Goa from 26 to 27 March 22 followed by a Sea Phase in the Arabian Sea from 28 to 30 March 22.
- The participation included warships, Maritime Reconnaissance aircraft and helicopters from the Navies of Bangladesh, France, India and Iran.
- 22 Observers from 15 IONS member navies, namely Australia, Bangladesh, France, India, Indonesia, Maldives, Mauritius, Mozambique, Oman, Qatar, Singapore, Sri Lanka, Thailand, UAE and UK also participated in the exercise.

About IONS

- The Indian Ocean Naval Symposium (IONS), established in 2007, is a premier forum for cooperation and collaboration among navies of littoral states of the Indian Ocean Region.
- The forum has enabled discussions on regional maritime issues, promoted friendly relationships, and significantly improved maritime security cooperation in the Indian Ocean Region.

VARUNA - 2022

In News

The 20th edition of the Bilateral Naval Exercise between Indian and French Navies – 'VARUNA' is being conducted in the Arabian Sea from 30 Mar – 03 Apr 22.

About VARUNA Exercise

- The Bilateral Naval Exercises between the two Navies were initiated in 1993.
- The exercise was christened as 'VARUNA' in 2001 and has become a vital part of India France strategic bilateral relationship.
- Various units including ships, submarines, maritime patrol aircraft, fighter aircraft and helicopters of the two navies are participating in the exercise.
- These units will endeavour to enhance and hone their operational skills in maritime theatre, augment interoperability to undertake maritime security operations and demonstrate their commitment to promote peace, security and stability in the region as an integrated force.

CHETAK HELICOPTERS

In News

Commemorating 60 Glorious years of service by Chetak Helicopter in IAF, Hon'ble Raksha Mantri Shri Rajnath Singh inaugurated a Conclave hosted by Indian Air Force at Air Force Station, Hakimpet.

About Chetak Helicopters

- It is a two ton class helicopter.
- The seven seater Chetak helicopter is versatile, multi role, multi purpose, and spacious.
- It is powered by Artouste III B turbo shaft engine.
- It is suitable for commuting, cargo / material transport, casualty evacuation, Search & Rescue (SAR), Aerial Survey & Patrolling, Emergency Medical Services, Off-shore operations and Underslung operations.
- HAL started manufacturing helicopters in 1962, by entering an agreement with M/s SUD-AVIATION (Presently M/s AIRBUS (Former EUROCOPTER), France) for production of Aloutte III helicopters (Chetak).
- The first Chetak (Aloutte III) in 'Fly Away' condition was delivered in 1965.

DRDO successfully flight-tests Solid Fuel Ducted Ramjet technology

In News

Defence Research and Development Organisation (DRDO) successfully flight tested Solid Fuel Ducted Ramjet (SFDR) booster at the Integrated Test Range (ITR), Chandipur off the coast of Odisha.

About SFDR

- The SFDR-based propulsion enables the missile to intercept aerial threats at very long range at supersonic speeds.
- The performance of the system has been confirmed from the data captured by a number of range instruments like Telemetry, Radar and Electro Optical Tracking Systems deployed by ITR.
- The SFDR has been developed by Defence Research and Development Laboratory, Hyderabad in collaboration with other DRDO laboratories such as Research Centre Imarat, Hyderabad and High Energy Materials Research Laboratory, Pune.

Pinaka Mk-I (Enhanced) Rocket System and Pinaka Area Denial Munition Rocket Systems

In News

Pinaka Mk-I (Enhanced) Rocket System (EPRS) and Pinaka Area Denial Munition (ADM) rocket systems have been successfully flight-tested by Defence Research and Development Organisation (DRDO) and Indian Army at Pokhran Firing Ranges.

Details

- The Pinaka rocket system has been developed by Armament Research and Development Establishment, Pune supported by High Energy Materials Research Laboratory, another Pune-based laboratory of DRDO.
- The EPRS is the upgraded version of Pinaka variant which has been in service with the Indian Army for the last decade.
- The system has been upgraded with advanced technologies enhancing the range to meet the emerging requirements.
- After establishing the performance efficacy of the enhanced range version of Pinaka, the technology was transferred to the industries viz. Munitions India Limited (MIL) and Economic Explosives Limited Nagpur.

'HELINA'

In News

- Indigenously developed helicopter launched Anti-Tank Guided Missile 'HELINA' was successfully flight tested at high-altitude ranges as part of user validation trials.
- The trial, carried out jointly by a Defence Research and Development Organisation (DRDO) team, along with the Indian Army and Air Force, was conducted from an advanced light helicopter and the missile was fired successfully at a simulated tank target.

Features of HELINA

- The Helina is a third generation fire and forget class anti-tank guided missile (ATGM) system mounted on the Advanced Light Helicopter (ALH).
- It has been developed by the Defence Research and Development Laboratory (DRDL), Hyderabad under the Missiles and Strategic Systems (MSS) cluster of the DRDO.
- According to DRDO scientists, the Helina has an operational range of 500 m to 20 km and can engage targets both in direct hit mode as well as top attack mode.
- Additionally, the system has all weather day and night capability and can defeat battle tanks with conventional armour as well as explosive reactive armour.
- The missile is guided by an Infrared Imaging Seeker (IIR), which makes it one of the most advanced Anti-Tank Weapons in the world.
- The expected cost of a single missile is to be under Rs 1 crore.
- While the Helina is being inducted into the Indian Army, its variant, called Dhruvastra, is being inducted into the Air Force.

Why Self-Reliance?

- India continues to be on the world's largest arms importers; in its latest report, the Stockholm International Peace Research Institute (SIPRI) showed that 11 per cent of all global arms sales were carried out by India in 2021.
- The report, however, also revealed that India's total volume of imports fell by 21 per cent from 2012-16.

VAGSHEER'

In News

The sixth and last submarine of the Indian Navy's Kalvari class submarines of Project 75 has been launched at the Kanhoji Angre Wet Basin of Mazagon Dock Limited (MDL).

Project - 75

- This project envisages indigenous construction of submarines equipped with the state-of-the-art Air Independent Propulsion system at an estimated cost of Rs. 43,000 crore.
- Project 75 (I), approved in 2007, is part of the Indian Navy's 30 year Plan for indigenous submarine construction.
- It will be the first under the strategic partnership model which was promulgated in 2017 to boost indigenous defence manufacturing.
- The first of the Project 75 submarines was commissioned into the Navy in December 2017 and presently four submarines of this Project are in commission in the Indian Navy.
- The fifth submarine is progressing with the Sea Trials and is likely to be delivered this year.
- The sixth submarine will now commence setting to work of various equipment and their harbour trials.

Naval Commanders' Conference

In News

- The first edition of Naval Commanders' Conference of 2022 is scheduled from 25 to 28 Apr 22.
- The Conference serves as a platform for Naval Commanders to discuss important maritime matters at the military-strategic level as well as interact with Senior Government functionaries through an institutionalised forum.

Significance

- The Chiefs of Indian Army and Indian Air Force will also interact with the Naval Commanders to address convergence of the three Services vis-à-vis a common operational environment, as well as discuss avenues of augmenting Tri-Service synergy and readiness.
- The conference would also dwell upon dynamics of the geostrategic situation in the backdrop of security scenario in the neighbourhood as well as changes emerging due to ongoing Russia-Ukraine conflict.

Indian Navy

- The Indian Navy is focused on being a combat ready, credible and cohesive force with a future-ready outlook and continues to assiduously execute its mandate.
- The Navy has witnessed a significant growth in its operational tasking over the years in consonance with India's growing maritime interests.
- Indian Navy's standing as the 'Preferred Security Partner' has also grown concomitantly in recent times.
- In 2020-21, IN ships have undertaken multiple COVID related outreach missions to provide food and medical aid to IOR littoral nations and beyond as part of Hon'ble PM's vision of SAGAR (Security And Growth for All in Region).

INS Surat And INS Udaygiri

In News

Defence Minister Rajnath Singh launched two frontline warships of the Indian Navy – 'Surat' and 'Udaygiri' - at Mazagon Docks Limited (MDL), Mumbai.

INS Surat

- '*Surat*' is the fourth ship of Project 15B Destroyers which heralds a significant makeover of the P15A (Kolkata Class) Destroyers and is named after the commercial capital of the state of Gujarat and also the second largest commercial hub of western India after Mumbai.
- Surat city has a rich maritime & ship building history and vessels built at the city in the 16th and 18th centuries were known for their longevity (of more than 100 years).
- The ship *Surat* has been built using the Block construction methodology which involved hull construction at two different geographical locations and has been joined together at MDL, Mumbai.

INS Udaygiri

- 'Udaygiri', named after a mountain range in the state of Andhra Pradesh, is the third ship of Project 17A Frigates.
- These are follow on of the P17 Frigates (Shivalik Class) with improved stealth features, advanced weapons and sensors and platform management systems.
- 'Udaygiri' is the reincarnation of erstwhile 'Udaygiri', the Leander Class ASW Frigate, which saw numerous challenging operations in its illustrious service to the country spanning over three decades from 18 Feb 1976 to 24 Aug 2007.

Project 15B class

- The Project 15B class of ships are the next-generation stealth guided-missile destroyers of the Indian Navy, being built at the MDL, which are follow-on class of the weapon intensive P15A (Kolkata Class) destroyers.
- The warships will be among the most technologically advanced missile carriers in the world, that will cater to the present as well as future requirements.
- It may be recalled that the first two ships of P17A Project, were launched in 2019 and 2020 at MDL and GRSE respectively.

Indigenously-developed Naval Anti-Ship Missile

In News

Defence Research and Development Organisation (DRDO) and Indian Navy successfully conducted maiden flight-test of indigenously-developed Naval Anti-Ship Missile launched from a Naval Helicopter from Integrated Test Range (ITR), Chandipur off the coast of Odisha.

Features

- It is the first indigenous air launched anti-ship missile system for the Indian Navy.
- The missile employed many new technologies, including an indigenously developed launcher for the helicopter.
- The missile guidance system includes state-of-the-art navigation system and integrated avionics.

NIRDESHAK

In News

'*Nirdeshak*, the second of the four Survey Vessels (Large) (SVL) Project being built by GRSE in collaboration with L&T shipbuilding for Indian Navy was launched on 26 May 22 at Kattupalli, Chennai.

Features

- The ship has taken its name from erstwhile **Nirdeshak** which was also an Indian Naval Survey ship and was decommissioned after 32 years of glorious service in Dec 2014.
- The first of class ship 'Sandhayak' was launched on 05 Dec 21 at GRSE, Kolkata.
- The ship is designed to operate at a cruise speed of 14 knots and a maximum speed of 18 knots.
- Bow and Stern Thrusters have been catered for better manoeuvring at low speeds required during shallow water survey operations.
- The hull of these ships is made from indigenously developed DMR 249-A steel manufactured by Steel Authority of India Limited.

Significance

- With the capability to carry four Survey Motor Boats and an integral helicopter, the primary role of the ships would be to undertake full scale coastal and deep-water hydrographic surveys of Ports and navigational channels.
- The ships would also be deployed for collecting oceanographic and geophysical data for defence as well as civil applications.
- In their secondary role, the ships are capable of providing limited defence, besides serving as Hospital ships during emergencies.

About SVLs

- The SVL ships will replace the existing Sandhayak Class survey ships with new generation hydrographic equipment to collect oceanographic data.
- The Survey Vessel (Large) ships have a deep displacement of about 3400 tons and a complement of 235 personnel.
- Part construction of three out of four ships of SVL is being undertaken at L&T, Kattupalli as part of a collaborative approach between GRSE and L&T shipbuilding.

Astra Mk-1 Missile

In News

In a major boost to Prime Minister Shri Narendra Modi's vision of 'Aatmanirbhar Bharat', Ministry of Defence signed a contract with Bharat Dynamics Limited (BDL) for supply of ASTRA MK-I Beyond Visual Range (BVR) Air to Air Missile (AAM) and associated equipment for the Indian Air Force & Indian Navy at a cost of Rs 2,971 crore under Buy (Indian-IDDM) category.

About Missile

- ASTRA MK-I BVR AAM has been Indigenously Designed & Developed by Defence Research and Development Organisation (DRDO).
- The 100-km range Astra Mk-1, developed by the DRDO, was tested for the first time in May 2003.
- Since then, been test-fired multiple times and integrated with Su-30 MKI fighters.
- The missile will also be integrated with Tejas Mark-1A and upgraded MiG-29s over the next few years.

- ASTRA BVRAAM (beyond visual range air-to-air missile) has a range of more than 100 kms with modern guidance and navigation techniques.
- Apart from this, the missile has midcourse guidance and RF seeker-based terminal guidance to achieve target destruction with pinpoint accuracy.

About BDL

- Bharat Dynamics Limited (BDL), a manufacturer of ammunitions and missile systems, was founded in 1970 in Hyderabad, Telangana, India.
- It was incorporated as a public sector undertaking under the Defence Ministry on July 16, 1970.
- The Defence Research Development Organisation has transferred technology to Bharat Dynamics Limited for the production of these missiles and associated systems.

EXERCISE "EX SAMPRITI-X"

In News

As part of the ongoing India Bangladesh bilateral defence cooperation, a joint military training exercise Ex SAMPRITI-X is being conducted at Jashore Military Station in Bangladesh from 05 June to 16 June 2022.

Ex - Sampriti

- Aim- the exercise is to strengthen interoperability between the two armies and to understand each other's tactical drills and operational techniques.
- Exercise SAMPRITI is an important bilateral defence cooperation endeavour conducted alternately by both countries which aims to strengthen and widen the aspects of interoperability and cooperation between both the armies.
- The Indian contingent of company strength is being represented by a Battalion of the DOGRA Regiment.
- During the joint military exercise Ex SAMPRITI-X, armies of both the Nations will share expertise in multiple simulated scenarios of Counter Terrorism, Humanitarian Assistance & Disaster Relief and UN Peacekeeping Force under UN mandate.
- The exercise will benefit both the armies by gaining from each other's vast experience which will further contribute to peace and stability in the region.

Nuclear-capable Agni-4 Ballistic Missile

In News

A successful training launch of an Intermediate Range Ballistic Missile, Agni-4, was carried out from APJ Abdul Kalam Island, Odisha.

Agni- 4 Missile

- The nuclear-capable ballistic missile has a range of 4,000 kms. Agni-4 missile is a part of Agni series of missiles and has been developed by the Defence Research and Development Organisation.
- Agni-1 has a range of 700 kms, and Agni-2 has a range of 2,000 kms.
- The corresponding figures for Agni-3 and Agni-4 are 2,500 kms and 3,500 kms.
- Agni- 5 is a surface-to-surface ballistic missile.
- Agni-5 is capable of striking targets at up to 5,000 kms with a very high degree of accuracy.

Khaan Quest 2022

In News

A Multinational Peacekeeping exercise "Ex Khaan Quest 2022" featuring participation from military contingents from 16 countries has commenced in Mongolia recently.

Ex Khaan Quest

- Indian Army is represented by a contingent from the LADAKH SCOUTS.
- The 14day exercise is aimed at enhancing interoperability, building military to military relationships, developing peace support operations and military readiness among participating nations.
- The exercise will also enable sharing of best practices between the Armed Forces of participating nations and will include field training exercises, combat discussions, lectures and demonstration.
- The military exercise will enhance the level of defence co-operation between Indian Army and participating countries especially with the Mongolian Armed Forces which will enhance bilateral relations between the two countries.

INS Satpura

In News

Towards enhancing military cooperation with the navies of friendly foreign countries, Indian Naval Ship Satpura on a deployment to the South China Sea (SCS) and West Pacific, visited Manila recently.

INS Satpura

- INS Satpura is an indigenously designed and built 6000 tonnes guided missile stealth frigate equipped to seek and destroy adversaries in air, surface and undersea.
- The ship is a part of the Eastern Fleet based at Visakhapatnam.
- INS Satpura (F48) is a Shivalik-class stealth multi-role frigate built for the Indian Navy.
- INS Satpura was built at the Mazagon Dock Limited (MDL) in Mumbai.
- The keel was laid on 31 October 2002 and was launched on 4 June 2004.

Technology Development Fund (TDF) scheme

In News

Raksha Mantri Shri Rajnath Singh has approved enhancement of funding under Technology Development Fund (TDF) scheme of Ministry of Defence to Rs 50 crore per project from Rs 10 crore.

About TDF scheme

- The TDF scheme, executed by Defence Research and Development Organisation (DRDO), supports
 indigenous development of components, products, systems and technologies by MSMEs and start-ups.
- **AIM-** to provide a major fillip to the defence manufacturing sector by encouraging the industry to innovate and develop defence technologies in order to place India on the self-reliance trajectory.
- The scheme facilitates up to 90 per cent of the total project cost and allows industry to work in consortium with another industry/academia.
- With the enhanced funding, the industry and startups will be able to develop more complex technologies for existing and future weapon systems and platforms.
- Till date, 56 projects have been sanctioned under TDF scheme.

Benefits to Agniveers

In News

In the context of the announcement of 'Agnipath Scheme' by Prime Minister Shri Narendra Modi, the Union Home Ministry has decided to give priority to Agniveers who have completed four years under this scheme for recruitment into CAPFs and Assam Rifles.

Agneepath Yojana

- Agnipath Yojana' is a visionary and welcome decision of Shri Narendra Modi for the bright future of the youth.
- It will allow Indian youth who want to become a part of Indian armed forces to enter into the forces through this new entry and opportunity available.
- Be it Indian Army, Indian Navy, or Indian Air Force. **Agneepath Army Bharti Scheme** is a central government scheme for all Indian candidates.
- Through Agnipath, one can serve in the combat forces and approximately 45,000 to 50,000 soldiers will be recruited every year for the service term of just four years.
- 'Agniveers' will be provided by a good pay package and an exit retirement package after 4 years of service.
- The Ministry of Home Affairs has decided to give priority to Agniveers who have completed four years under this scheme for recruitment into CAPFs and Assam Rifles.

MoU Signed between Indian Navy and NCMRWF

In News

National Centre for Medium Range Weather Forecasting (NCMRWF), Ministry of Earth Sciences, signed Memorandum of Understanding (MoU) with Indian Navy, Ministry of Defence.

About MoU

- The MoU is signed on cooperation on Numerical Model Based Applications in Meteorology and Oceanology'.
- The purpose of this collaboration would be to share the expertise with the aim of keeping both organisations in step with rapid development in the field of weather/ ocean modelling, coupled modelling, data assimilation, ensemble forecasting and satellite data use.
- The MoU would benefit both NCMRWF and Indian Navy in furthering meaningful interactions and professional exchanges in future.

NCMRWF

NCMRWF with highly skilled scientists and state of the Art infrastructure would provide support to two of the premier establishments of Indian Navy located at Kochi, i.e., Naval Operations Data Processing and Analysis Centre (NODPAC) and Indian Naval Meteorological Analysis Centre (INMAC) in developing advanced numerical weather prediction systems including coupled models, with increased reliability and accuracy over the Indian Ocean Region (IOR) and global regions.

RIMPAC-22

In News

INS Satpura entered Pearl Harbour in Hawaii Islands on 27 Jun 22 to participate in RIMPAC-22. INS Satpura and one P8I maritime patrol aircraft from the Indian Navy are participating in one of the largest multilateral Naval Exercises, the US Navy led biennial Rim of the Pacific (RIMPAC) exercise 2022.

RIMPAC

- RIMPAC, the Rim of the Pacific Exercise, is the world's largest international maritime warfare exercise.
- RIMPAC is held biennially during June and July of even-numbered years from Honolulu, Hawaii, with the exception of 2020 where it was held in August.
- It is hosted and administered by the United States Navy's Indo-Pacific Command, headquartered at Pearl Harbor, in conjunction with the Marine Corps, the Coast Guard, and Hawaii National Guard forces under the control of the Governor of Hawaii.
- The exercise spanning over six weeks of intense operations and training is aimed at enhancing interoperability and to build trust among Navies of friendly foreign countries.
- 27 countries are participating in the current edition of the multi-dimensional exercise.

INS Satpura

- INS Satpura is an indigenously designed and built 6000-tonne guided missile stealth frigate equipped to seek and destroy adversary in air, surface and underwater.
- A frontline unit of Eastern Fleet based at Visakhapatnam, INS Satpura is currently on an extended operational deployment in the 75th year of India's Independence.

KEEL LAYING - SEVENTH PROJECT 17A (P17A) SHIP

In News

The **keel for the seventh ship** (Y- 12654) of the prestigious P17A of Indian Navy was ceremoniously laid by Rear Admiral GK Harish, Director General Naval Design (Surface Ship Group) at M/s Mazagon Dock Shipbuilders Ltd., Mumbai.

Project-17A

- The coveted 'Project 17A' was cleared by the govt back in 2015.
- It involves the building of seven stealth frigates at an estimated cost of Rs 50,000 crore.
- Of these seven, the contract for three frigates was awarded to GRSE while the contract for another four frigates was awarded to Government-owned Mazagon Docks Limited (MDL) which is based in Mumbai.
- These frigates will come armed with advanced state-of-the-art sensors and boast of top-notch stealth features.
- They will represent the most advanced class of major surface warships for the Indian Navy in a decade, also featuring BrahMos supersonic surface-to-surface missiles.
- The P17A class frigates are being built using indigenously developed steel and fitted with weapons and sensors along with Integrated Platform Management System.

High speed Expendable Aerial Target - ABHYAS

In News

ABHYAS – High speed Expendable Aerial Target (HEAT) was successfully flight-tested from the Integrated Test Range (ITR), Chandipur off the coast of Odisha recently.

Features

- Designed and developed by: Aeronautical Development Establishment (ADE) of DRDO.
- It is a drone (UAV) that will be used as a target for various missile systems.
- It is powered by a small gas turbine engine.
- Navigation by Micro-electromechanical (MEMS) systems based Inertial Navigation System (INS) for navigation.
- MEMS is a process technology used to create tiny integrated devices or systems that combine mechanical and electrical components.
- It is lightweight and reliable, consumes less power and is cost-effective.
- Programmed for fully autonomous flight.

Raksha Mantri launches Y- 3023 Dunagiri, Project 17A frigate

In News

Raksha Mantri Shri Rajnath Singh launched Y- 3023 Dunagiri, Project 17A frigate built by Garden Reach Shipbuilders Limited (GRSE) in Kolkata.

Features

- P17A Frigates are follow-on class of the P17 (Shivalik Class) Frigates with improved stealth features, advanced weapons and sensors and platform management systems.
- Seven P17A Frigates are under various stages of construction at Mazagaon Dock Limited (MDL) and GRSE.
- This warship has been named after a peak in Uttarakhand, Dunagiri.
- The Navy had a warship of the same name, which retired in 2010 after 33 years of service.
- Dunagiri project generated more than 3000 local employment opportunities.
- This warship is the fourth warship of Project-17A.
- A total of seven warships are to be built for the Navy under this project.
- Four are being built at Mazagon Dockyard in Mumbai.
- Three are being built in Kolkata
- The seven warships are being named after different mountain peaks of the country.
- In addition, 29 Indian OEMs along with MSMEs across the country are contributing to this project.
- 75 per cent of the weapons, navigation systems, instruments and equipment in INS Dunagiri are indigenous. Its design has been prepared by the Directorate of Naval Design of the Navy.
- It has better stealth mechanism, modern weapons, sensors and management system. Its old version was retired on this day in 2010.

Significance

- The economic, political and trade relations between countries are constantly evolving. Security challenges in the Indian Ocean region and Indo-Pacific are constantly increasing.
- In order to achieve the Prime Minister's Vision of 'SAGAR', i.e. 'Security and Growth for All in the Region' and to protect, preserve and promote India's National Maritime Interests, Indian Navy, Indian Coast Guard and

other organisations have to increase the infrastructure and assets so that the country stay ahead of the curve in dealing with these challenges.

DefExpo

In News

The 12th edition of DefExpo - India's flagship exhibition on Land, Naval and Homeland Security systems - will be held in Gandhinagar, Gujarat between October 18-22, 2022.

DefExpo 2022

- DefExpo 2022 will be held in a three-venue format across an area of 01+ lakh square metres at Helipad Exhibition Centre; inaugural event and seminars at Mahatma Mandir Convention and Exhibition Centre and Live demo at Sabarmati River Front.
- DefExpo 2022 is in line with the vision of Prime Minister Shri Narendra Modi to achieve self-reliance in defence and achieve export of \$5 billion by 2025.
- India has successfully established itself as an emerging defence manufacturing hub with numerous international orders being bagged by Indian companies in recent years.
- The Indian Defence industry has been keenly anticipating DefExpo-2022 which is Asia's largest event in the defence sector.
- The Ministry of Defence has introduced numerous policy reforms in recent years such as simplifying industrial licensing process; allowing 74% Foreign Direct Investment (FDI) through automatic route.

Advanced Towed Artillery Gun System (ATAGS)

In News

On **Independence Day**, ATAG, an indigenously developed howitzer, became part of a 21-gun salute at the Red Fort.

ATAG

- The ATAGS is an indigenous 155 mm x 52 calibre howitzer gun developed by the Defence Research and Development Organisation (DRDO) with its Pune-based facility Armament Research and Development Establishment (ARDE) being the nodal agency.
- Howitzers is an umbrella term for a category of long-range artillery guns.
- The ATAGS project was started in 2013 by DRDO to replace older guns in service in the Indian Army with a modern 155 mm artillery gun.

Features

- The armament system of ATAGS mainly comprises barrel, breech mechanism, muzzle brake and recoil mechanism to fire 155 mm calibre ammunition held by Army with a longer range, accuracy and precision and provides greater firepower.
- The ATAGS is configured with all electric drive to ensure maintenance free and reliable operation over a longer period of time.
- It has advanced features in terms of high mobility, quick deployability, auxiliary power mode, advanced communication system, automatic command and control system with night firing capability in the direct fire mode.
- The specialised gun system is compatible with C4I (command, control, communications, computers, and intelligence) systems like the Artillery Combat Command and Control System (ACCCS) called Shakti for

technical fire control, fire planning, deployment management, and operational logistics management of the Army.

Multinational Naval Ex Kakadu

In News

INS Satpura and a P8 I Maritime Patrol Aircraft of the Indian Navy reached Darwin in Australia, for participation in the multinational Exercise Kakadu – 2022, hosted by the Royal Australian Navy.

Ex Kakadu-2022

- Exercise KAKADU, which **started in 1993**, is a multilateral regional maritime engagement exercise hosted by the **Royal Australian Navy (RAN) and supported by the Royal Australian Air Force (RAAF).**
- It is a multilateral regional maritime engagement exercise hosted by the Royal Australian Navy and supported by the Royal Australian Air Force.
- It is held biennially in Darwin and the Northern Australian Exercise Areas (NAXA).
- It would see participation from 25 different countries.
- Exercise derives its name from Kakadu National Park, which is a protected area in the northern territory of Australia.

Japan-India Maritime Bilateral Exercise – Jimex 2022

In News

The sixth edition of Japan India Maritime Exercise 2022 (JIMEX 22) hosted by Indian Navy commenced in the Bay of Bengal recently.

About JIMEX

- This edition marks the 10th anniversary of JIMEX, which began in Japan in 2012.
- It also coincides with the 70th anniversary of establishing of diplomatic relations between India and Japan. JIMEX 22 seeks to consolidate the high degree of interoperability that exists between maritime forces of the two countries, through complex exercises in the surface, sub-surface and air domains.
- The Indian Navy is being represented by three indigenously designed and built warships; Sahyadri, a multipurpose stealth frigate and Anti-Submarine Warfare Corvettes Kadmatt and Kavaratti.

Significance

- The exercise is taking place in the backdrop of growing concerns over China's military muscle flexing in the Indian Ocean Region as well as in the Indo-Pacific.
- It will be the first military exercise after the two countries signed a landmark agreement (Acquisition and Cross-Servicing Agreement ACSA), that will allow their militaries to access each other's bases for logistics support.
- India has significantly expanded its deployment in the Indian Ocean Region with a plethora of warships and submarines following the border row with China. The maritime space around the Malacca Strait is critical for China's supply chain through sea routes.

Other Military Exercises between India and Japan:

- Annual joint land military exercise named 'Dharma Guardian'.
- Joint Air Force exercise 'Shinyuu Maitri'.
- Trilateral Maritime Exercise Malabar with the USA.

Multinational Maritime Exercise Kakadu 2022

In News

A P8I Long Range Maritime Patrol Aircraft of the Indian Navy participated in the Multinational Maritime Exercise Kakadu 2022 hosted by Royal Australian Navy in Darwin along with INS Satpura.

Kakadu 2022

- The Exercise Kakadu 2022 (KA22) is a multinational exercise hosted by the Australian Navy in Darwin the capital of Australia's Northern Territory.
- It will be held from September 12 to 24 this year by the Royal Australian Navy with the support from the Royal Australian Air Force.
- This two-week long biennial maritime exercise brings together around 3,000 personnel, 15 warships and more than 30 aircraft from 22 countries.
- The Indian Navy is being represented by INS Satpura and P8 I Maritime Patrol Aircraft.
- The theme of this international exercise is 'partnership, leadership and friendship'.
- It would cover both sea phase and the harbour phase.
- The harbour phase would witness participants being involved in operational planning interactions and supportive activities.
- It would also include a Fleet Commanders and Senior Leaders' Conference, cultural events and social functions.
- The inaugural edition of the Exercise Kakadu was held in 1993.

Very Short Range Air Defence System (VSHORADS) Missile

In News

DRDO conducted two successful test flight of Very Short Range Air Defence System (VSHORADS) missile recently from a ground based portable launcher at the Integrated Test Range, Chandipur.

About VSHORADS

- VSHORADS is a Man Portable Air Defence System (MANPAD) designed and developed indigenously by DRDO's Research Centre Imarat (RCI), Hyderabad in collaboration with other DRDO laboratories and Indian Industry Partners.
- VSHORADS missile incorporates many novel technologies including miniaturized Reaction Control System (RCS) and integrated avionics.
- The design of the missile including launcher has been highly optimized to ensure easy portability.

Online Building Plan Approval System (OBPAS)

In News

Government has approved the extension of Online Building Plan Approval System (OBPAS) under eChhawani portal to five more Cantonment Boards, namely Agra, Ranikhet, Babina, Jammu and Cannanore.

Significance

• This will further enhance the speed, accuracy, consistency and transparency in the process of building plan scrutiny in these cantonments.

• With this extension, the benefits under OBPAS can now be availed by residents living in 22 Cantonment Boards across the country.

OBPAS

- OBPAS has standardized the application form and process across cantonment boards.
- Residents are required to upload only four documents as against the requirement of uploading 10 documents earlier. Moreover, the mandatory provision for prior field inspection in the process of approval of building plan has been done away with, except in case of old grant property outside the civil area.
- The entire building plan will be processed in a short time varying between 2 days to 11 days depending on location of the site (within or outside civil area).
- Through the online portal, an applicant/architect can submit the building plan drawings in eDCR (Electronic Development Control Regulations) format.
- The plan will be automatically checked and validated as per the building parameters (bye-laws) of the Cantonment Board.

eChhawani

- eChhawani is a Citizen Centric project of Directorate General of Defence Estates, Ministry of Defence to provide online services across 62 Cantonment Boards through a common web portal in paperless, faceless and cashless manner.
- Online Building Plan Approval System (OBPAS) module under eChhawani was initially rolled out to enable 'Ease of Living' and 'Ease of Doing Business'' for residents in 17 Cantonment Boards.

INDO - US JOINT TRAINING EXERCISE "YUDH ABHYAS 2022"

In News

- The 18th edition of Indo US joint training exercise "YUDH ABHYAS 22" is scheduled to be conducted in Uttarakhand this month.
- Exercise Yudh Abhyas is conducted annually between India and USA with the aim of exchanging best practices, Tactics, Techniques and Procedures between the Armies of the two nations.

Yudh Abhyas

- The previous edition of the exercise was conducted at Joint Base Elmendorf Richardson, Alaska (USA) in October 2021.
- It is the largest running joint military training and defence cooperation endeavor between India and the US.
- The exercise was started in 2004 under the US Army Pacific Partnership Program. The exercise is hosted alternately between both countries.
- The exercise aims at enhancing understanding, cooperation and interoperability between two Armies.
- This will help them in undertaking joint operations at battalion level in mountainous terrain with cold climatic conditions under the ambit of the United Nations.
- The joint exercise will also focus on Humanitarian Assistance and Disaster Relief (HADR) operations.
- Troops from both nations will practice launching of swift & coordinated relief efforts in the wake of any natural calamity.

Other Exercises between India and the US

- Exercise Tiger Triumph (Humanitarian Assistance and Disaster Relief exercise)
- Exercise Vajra Prahar (Special Forces' Exercise)
- Cope India (Air Force).
- Malabar Exercise (Quadrilateral naval exercise of India, USA, Japan and Australia).

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• Red Flag (US' multilateral air exercise).

India's first Centre of Excellence for Green Port & Shipping

In News

Union Minister of Ports, Shipping & Waterways and Ayush, Shri Sarbananda Sonowal announced India's first National Centre of Excellence for Green Port & Shipping (NCoEGPS) a major initiative by the Ministry of Ports, Shipping towards providing greener solutions.

About the Excellence port

- The centre aims to develop a regulatory framework and alternate technology adoption road map for Green Shipping to foster carbon neutrality and circular economy (CE) in shipping sector in India.
- India intends to increase the share of renewable energy to 60% of the total power demand of each of its major ports from a present share of less than 10%. This will be through solar and wind-generated power.
- The ports have also aimed to reduce Carbon emissions per ton of cargo handled by 30% by 2030. The Maritime Vision Document 2030.
- This Centre will help on policy and regulatory support to the Ministry of Ports, Shipping and Waterways for developing regulatory framework and alternate technology adoption roadmap for Green Shipping to foster carbon neutrality and circular economy (CE) in shipping sector in India.
- India has been selected as the first country under the IMO Green Voyage 2050 project to conduct a pilot project related to Green Shipping.

OBJECTIVE

The main objective of the proposed NCoEGPS is to provide support to MoPSW in developing and maintaining a policy and regulatory framework for a green alternative technologies road map for the shipping sector in India for its transition to carbon neutrality and CE principles.

13th bilateral naval exercise Naseem Al Bahr-2022

In News

The 13th edition of bilateral exercise between the Indian and the Royal Oman navies, Naseem Al Bahr-2022, commenced off the coast of Oman on 20 November 2022.

Naseem Al Bahr-2022

- Naseem Al Bahr naval exercise was started in 1993.
- The last edition was conducted off Goa in 2019.
- India has ancient maritime tradition and maritime interaction with Oman dates back to over 4000 years BC. Bilateral relations between both countries were formally established with signing of 1953 Indo-Oman Treaty of friendship, Navigation and Commerce.
- It was first between India and Arab country.
- The Indian Navy's guided missile frigate **Trikand** and Offshore Patrol Vessel **Sumitra**, with their integral helicopters, and the maritime patrol aircraft, Dornier, are participating in the exercise.
- The exercise facilitates operational-level interaction between the two navies to foster mutual cooperation and enhance good order at sea.
- The exercise also aims to strengthen the ancient maritime and cultural linkages between India and Oman.

Joint Exercise Agni Warrior

In News

- The 12th Edition of Exercise Agni Warrior, a bilateral exercise between the Singapore & Indian Army, which had commenced on 13 November 2022 concluded at Field Firing Ranges, Devlali (Maharashtra) on 30 November 2022.
- Exercise Agni Warrior, involved showcasing joint firepower planning, execution and use of New Generation Equipment by the Artillery arm of both armies.

About the Exercise

- Exercise also included participation by both sides in a joint computer war-game as part of joint planning process.
- Both sides utilised niche technology and Artillery Observation Simulators as part of joint training phase.
- Expert academic discussions were conducted on modern trends in Artillery and refinement of Artillery planning process.
- Indigenously manufactured Artillery guns and howitzers also participated during the final phase of the exercise.
- The exercise achieved its aim of enhancing mutual understanding of drills & procedures and improving interoperability between the two armies.

SURYA KIRAN -XVI

In News

The 16th Edition of Indo-Nepal joint training Exercise "SURYA KIRAN-XVI" between India and Nepal will be conducted at Nepal Army Battle School, Saljhandi (Nepal).

Surya Kiran

- SURYA KIRAN" is conducted annually between India and Nepal with the aim to enhance interoperability in jungle warfare & counter terrorism operations in mountainous terrain and HADR under UN mandate.
- Nepal Army soldiers of Shree Bhawani Baksh Battalion and Indian Army soldiers from the 5 GR will be participating in the exercise.
- The two armies, through these contingents, shall be sharing the experiences gained during the conduct of various counter-insurgency operations over the years in their respective countries.
- The joint exercise would focus on evolution of combined drills for planning and conduct of tactical operations at unit level in counter terrorism operations and disaster response mechanism in general and role of armed forces in management of disaster.

Indo-Kazakhstan Joint Military Exercise "Kazind – 2022"

In News

The 6th Edition of Indo - Kazakhstan joint training exercise "KAZIND-22" is scheduled to be conducted at Umroi (Meghalaya) from 15 to 28 December 2022.

KAZIND-22

- Kazakhstan Army soldiers comprising of troops from the Regional Command, South and Indian Army soldiers from the 11 Gorkha Rifles will be participating in the exercise.
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- Aim of the exercise is to build positive military relations, imbibe each other's best practices and promote the ability to operate together while undertaking counter terrorist operations in semi urban / jungle scenario, under a UN peace enforcement mandate.
- This joint exercise enable the two armies to train, plan and execute a series of combined tactical drills for neutralising of likely threats that may be encountered in UN peace keeping operations.
- Joint annual training exercise with the Kazakhstan Army was instituted in 2016 as Exercise **Prabal Dostyk**, which was later upgraded to a company level exercise and renamed as Ex Kazind in 2018.
- "Exercise KAZIND" will enhance the level of defence cooperation between Indian Army and Kazakhstan Army which will further foster the bilateral relations between the two nations.

India-Kazakhstan relations

- India was one of the first countries to recognize the independence of Kazakhstan, which was on December 16, 1991. Diplomatic relations were established in February 1992.
- India and Kazakhstan have been strategic partners since 2009.
- Both countries actively cooperate under the aegis of multilateral fora including CICA (Conference on Interaction and Confidence-Building Measures in Asia), Shanghai Cooperation Organisation (SCO) and the UN organisations. India has been a consistent supporter of Kazakhstan's initiative on CICA and is actively participating in the process.
- The India-Kazakhstan Inter-Governmental Commission (IGC) established in 1993 is the apex bilateral institutional mechanism for developing trade, economic, scientific, technological, industrial and cultural cooperation between the two countries.
- Several Joint Working Groups (JWGs) have been established in areas including counter-terrorism, trade & economic cooperation, defence & military technical cooperation, information technology, hydrocarbons and textiles.
- The Indo-Kazakh Defence Cooperation is carried out under the framework of an agreement on 'Defence and Military Technical cooperation' signed in July 2015. The agreement includes various areas including conduct of joint training, exercises, military-technical cooperation and UN peacekeeping.
- Kazakhstan is India's largest trade and investment partner in Central Asia. In 2019, total bilateral trade between India and Kazakhstan amounted to \$1.56 billion.

BRAHMOS AIR Missile

In News

Indian Air Force recently successfully fired the Extended Range Version of Brahmos Air Launched missile against a Ship Target from a SU-30MKI aircraft.

Significance

- With this, IAF has achieved a significant capability boost to carry out precision strikes from SU-30MKI aircraft against land/ sea targets over very long ranges.
- The extended range capability of the missile coupled with the high performance of the SU-30MKI aircraft gives the IAF a strategic reach and allows it to dominate the future battle fields.

Brahmos Missile

- An Inter-Governmental Agreement was signed with Russia in Moscow in 1998 by Dr Kalam, who headed the Defence Research and Development Organisation (DRDO), and N V Mikhailov, Russia's then Deputy Defence Minister.
- This led to the formation of BrahMos Aerospace, a joint venture between DRDO and NPO Mashinostroyenia (NPOM), the Indian side holding 50.5% and the Russians 49.5%.

• In 1999, work on development of missiles began in labs of DRDO and NPOM after BrahMos Aerospace received funds from the two governments.

Features of the missile

- BrahMos is a two-stage missile with a solid propellant booster engine.
- Its first stage brings the missile to supersonic speed and then gets separated.
- The liquid ramjet or the second stage then takes the missile closer to three times the speed of sound in cruise phase.
- The missile has a very low radar signature, making it stealthy, and can achieve a variety of trajectories.
- The 'fire and forget' type missile can achieve a cruising altitude of 15 km and a terminal altitude as low as 10 m to hit the target.
- Cruise missiles such as BrahMos, called "standoff range weapons", are fired from a range far enough to allow the attacker to evade defensive counter-fire.
- The BrahMos has three times the speed, 2.5 times flight range and higher range compared to subsonic cruise missiles.

Border Security Force (BSF) mobile app 'Prahari'

In News

Union Home and Cooperation Minister Shri Amit Shah launched the Mobile App 'Prahari' and Manual of Border Security Force (BSF) in New Delhi recently.

About Prahari App

- The jawans can get personal information and information related to accommodation, Ayushmann-CAPF and leaves on their mobiles.
- Be it GPF, Bio Data or grievance redressal on "Centralized Public Grievance Redress and Monitoring System" (CP-GRAMS) or information on various welfare schemes, now Jawans can get all this information through the app and this app will also connect them with the portal of the Ministry of Home Affairs.
- A "BSF Drone/UAV and Cyber Forensic Lab" has been set up in Noida, through which captured drones have been thoroughly mapped for their linkages and locations across the border.

Veer Guardian-2023

In News

To promote Air Defence cooperation between the countries, India and Japan are all set to hold the joint Air Exercise, 'Veer Guardian-2023' in Japan.

Veer Guardian

- The exercise is aimed to promote air defence cooperation between the two countries.
- India's first female fighter pilot, Squadron Leader Avni Chaturvedi, will participate in the exercise, making her the first woman officer of the IAF to participate in an international wargame held outside the country.
- The exercise will be held at Japan's Hyakuri air base from January 12 to 26.
- The Indian contingent participating in the exercise will include four Su-30 MKI, two C-17 and one IL-78 aircraft, while the JASDF will be participating with four F-2 and four F-15 aircraft.
- The inaugural exercise will include the conduct of various aerial combat drills between the two forces.
- They will undertake multi-domain air combat missions in a complex environment and will exchange best practices.

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• 'Veer Guardian' will fortify the long-standing bond of friendship and enhance the avenues of defence cooperation between the two Air Forces.

Prithvi-II missile successfully tested-fired in Odisha

In News

India successfully carried out a test launch of tactical ballistic missile Prithvi-II from a test range off the Odisha coast recently.

Prithvi-II Missile

- Prithvi-II is a short-range ballistic missile, with a range of around 350 kilometres.
- It is well-established system that has been an integral part of India's nuclear deterrence.
- This missile system will enable India to target enemy's assets with high accuracy, and it will make the country's defense more robust.
- It is designed for engaging targets in exo-atmosphere region at altitude 50 km of earth's atmosphere.
- It is guided by high-accuracy Inertial Navigation System (INS) supported by Redundant Micro Navigation System for estimating point of interception.
- The missile is also fitted with Imaging Infrared (IIR) seeker, developed by DRDO, to distinguish between incoming warheads and decoys.

21st edition of naval exercise 'Varuna' between India and France begins

In News

The 21st edition of the bilateral naval exercise between India and France commenced on the western seaboard recently.

About Varuna

- The bilateral exercise, which was initiated in 1993, was named 'Varuna' in 2001 and has become a defining feature of the India-France strategic bilateral relationship.
- This edition of the exercise will see the participation of the Indian Navy's indigenous guided missile stealth destroyer INS Chennai, guided missile frigate INS Teg, maritime patrol aircraft P-8I and Dornier, integral helicopters, and MiG29K fighter aircraft.
- The French Navy will be represented by the aircraft carrier Charles De Gaulle, frigates FS Forbin and Provence, support vessel FS Marne, and maritime patrol aircraft Atlantique.

Significance

- Exercise Varuna plays a critical role in strengthening the strategic partnership between India and France, and in enhancing the interoperability and understanding between the two navies. It also serves as an opportunity for both countries to demonstrate their commitment to regional peace, security, and stability.
- The exercise also enables the Indian Navy to learn from the French Navy's advanced capabilities and technologies and to improve its own maritime capabilities.

FIFTH KALVARI CLASS SUBMARINE VAGIR

In News

Indian Navy is set to commission the fifth Kalvari class submarine Vagir on 23 Jna, 2023.

About Vagir

- These submarines are being built in India by the Mazagon Dock Shipbuilders Limited (MDL) Mumbai, under collaboration with M/s Naval Group, France.
- The erstwhile Vagir was commissioned on 01 Nov 1973 and undertook numerous operational missions including deterrent patrols.
- The submarine was decommissioned on 07 Jan 2001 after serving the nation for about three decades.
- The submarine in its new avatar has the distinction of having the lowest build time among all indigenously manufactured submarines till date.

Significance

- Vagir will boost the Indian Navy's capability to further India's maritime interests and is capable of undertaking diverse missions including anti-surface warfare, anti-submarine warfare, intelligence gathering, mine laying and surveillance missions.
- The Sand Shark represents 'Stealth and Fearlessness', two qualities that are synonymous with the ethos of a submariner.
- The induction of Vagir is another step towards the Indian Navy, consolidating its position as a builder's Navy, as also reflects MDL's capabilities as a premier ship and submarine building yard.

Indo-Egypt Joint Training Exercise Cyclone - I Commences in Rajasthan

In News

The first ever joint exercise between the special forces of the Indian Army and the Egyptian Army named "Exercise Cyclone-I" is in progress at Jaisalmer in Rajasthan since 14 January 2023.

Cyclone-I Exercise

- The exercise is the first of its kind as it brings the special forces of the countries to a common platform.
- Cyclone-I would help the armies exchange their culture and ethos.
- Also, they will foster interoperability and aid in boosting the diplomatic relation between the nations.
- The exercise aims to bolster defence co-operation between the two nations and focus on sharing professional skills and interoperability of Special Forces in desert terrain while undertaking counter terrorism, reconnaissance, raids and other special operations.
- The joint exercise would provide an insight into the culture and ethos of both armies thereby fostering military cooperation and interoperability to further strengthen the diplomatic relations between India and Egypt.
- The 14-day exercise which is being carried out in the deserts of Rajasthan engages both the contingents to advance special forces skills such as sniping, combat free fall, reconnaissance, surveillance and target designation, sharing of information on weapons, equipment, innovations, tactics, techniques and procedures.

DRDO's Fuel Cell-based Air Independent Propulsion system

In News

In a major boost to 'Aatmanirbhar Bharat', Fuel Cell-based Air Independent Propulsion (AIP) system of DRDO's Naval Materials Research Laboratory (NMRL) will soon be fitted onboard INS Kalvari.

About AIP

- The AIP has a force multiplier effect on lethality of a diesel electric submarine as it enhances the submerged endurance by several folds.
- It has merits in performance compared to other technologies and is unique as the hydrogen is generated onboard.
- AIP can augment or replace the diesel-electric propulsion system of non-nuclear vessels.
- This technology has been successfully developed by NMRL with the support of Indian industry partners.
- The land-based prototype of the NMRL's AIP has been tested successfully.

Significance

- This new endeavour will be a significant step towards the detailed design certification of the energy module, which will be performed by NMRL along with Indian industry and design of the platforms impacted by the integration of the indigenous AIP inside the Indian submarine by Naval Group.
- These actions will seamlessly lead the way to start of localisation and industrialization of AIP including the hull fabrication by the Indian industry for future fitment on-board the submarines.
- Only a few countries in the world have access to this unique technology.