

News Analysis (02 Jul, 2021)

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Six Years of Digital India Programme

Why in News

Recently, the Prime Minister of India addressed a virtual event to mark the completion of six years of **Digital Indian programme**.

- Important Points of Address:
 - India's Techade: The <u>data</u> and <u>demographic dividend</u> combined with India's proven tech prowess presents massive opportunity for the country, and this decade will be 'India's techade'.
 - Highlighted Various Schemes of Digital India programme:
 - <u>Diksha</u>: It stands for Digital Infrastructure for Knowledge Sharing. It serves as National Digital Infrastructure for Teachers. All teachers across the nation will be equipped with advanced digital technology.
 - <u>eNAM</u>: It was launched on 14th April 2016 as a pan-India electronic trade portal linking Agricultural Produce Market Committees (APMCs) across the States.
 - <u>eSanjeevani</u>: It is a telemedicine service platform of the Ministry of Health & Family Welfare.
 - DigiBunai: DigiBunai aids the weavers to create digital artwork and translate the saree design to be loaded to the looms. DigiBunai[™] is a first of its kind Open Source software for Jacquard and dobby weaving.
 - <u>PM SVANidhi scheme</u>: The Ministry of Housing and Urban Affairs (MoHUA) has launched Pradhan Mantri Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi), for providing affordable loans to street vendors. It incentivises digital transactions by the street vendors.
 - Digital solutions during Covid-19: Contact tracing app, Aarogya Setu.

- Digital India Programme: It was launched in 2015. The programme has been enabled for several important Government schemes, such as BharatNet, Make in India, Startup India and Standup India, industrial corridors, etc.
 - Vision Areas:
 - Digital infrastructure as Utility to Every Citizen.
 - Governance and services on demand.
 - Digital empowerment of citizens.
 - Objectives:
 - To prepare India for a knowledge future.
 - For being transformative that is to realize IT (Indian Talent) + IT (Information Technology) = IT (India Tomorrow).
 - Making technology central to enabling change.

On being an Umbrella Programme – covering many departments.

Nine Pillars of Digital India

TARGETS
 COST

1 Broadband Highways Broadband in 2.5 lakh gram panchayats by Dec 2016; Virtual network operators and smart buildings in cities; National Information Infrastructure by March 2017 ₹ 47,686 cr

5 E-Kranti - Electronic Delivery of Services E-education, broadband, free

WiFi, online courses. * Ehealthcare, online consultation/records/supply. Full coverage in three years; online cash, load. Information for farmers, financial inclusion e-courts, e-police, e-prosecution

7 Electronics Manufacturing – Target Net Zero Imports

Zero Imports Focus on semi-conductor fabrication plants, fabless design, set-top boxes, VSATs, mobiles, consumer & medical electronics, smart energy meters, smart cards, micro-ATMs 2 Universal Mobile Access Cover rest of 42,300 villages by FY18 ₹ 16,000 cr

Public Internet Access Programme Common Service Centres in 2.5 lakh villages by March 2017; 15 lakh post offices to offer multiple services ₹ 4750 cr E-Governance: Reforming Govt through Technology Simplify forms, create online repositories for school certificates, IDs Integration of services and platforms (Aadhaar, payment Gateway); automate govt workflow; redress grievances

6 Information for All

Online hosting of information & documents; Govt engages via social media. Little addition resources needed

IT for Jobs

Train 1 crore people in towns/villages in five years (new); three lakh agents to run viable businesses delivering IT services (ongoing); five lakh rural IT workforce in 5 years; BPO in every NE state ₹ 200 cr

Early Harvest Programmes

Biometric attendance by Oct; WiFi in all varsities secure govt email hotspots in cities with pop > 1 million/tourist centres; ebooks; SMS-based distaster alerts weather info ₹900 cr

• Significant Achievements:

- Digital Payments: The introduction of <u>Unified Payments Interface (UPI)</u>, which introduced the benefits of digital payments in every part of the country.
 - From flourishing businesses to modest street vendors, UPI is helping everyone with payments and transactions.
 - This also encourages a number of private players to provide alternatives for digital payments which completely transformed the Indian economy.
- Easing the Operations of Businesses: The <u>Electronic Customer</u> <u>Identification System (e-KYC)</u>, the Electronic Document Storage System (DigiLocker) and the Electronic Signature System (eSign) were introduced to help businesses streamline their operations.
- Beyond the JAM Trinity: What started as a simple step to kick off the JAM trinity (Jan Dhan, Aadhar and Mobile) to weed out leakages in the system, today empowered the entire vaccination drive for Covid, making India only the second nation to USA that administered 20 crore vaccines.

Way Forward

- There are **many roadblocks** in the way of its successful implementation like digital illiteracy, poor infrastructure, low internet speed, lack of coordination among various departments, issues pertaining to taxation etc. These challenges need to be **addressed** in order to realize the full potential of this programme.
- As we celebrate the six years of completion of Digital India, here are the six concrete steps that can aid the digital transformation of the nation in the new normal for Digital 4.0 contributing to India's success story and fulfilling the five trillion-dollar economy dream.
 - Inculcation of scientific temper, where perception doesn't drive policy.
 - Access to data and lower costs of devices especially smartphones.
 - High speed technology and seamless connectivity (5G, 6G).
 - Quality and local language content.
 - A secure and **safe cyberspace** with clear spaces for redressal, ombudsmen, grievance redressal officers.
 - Renewable energy, seamless power supply, green technology and lastly more and more government services to be brought online with more departments talking to each other.
- Tech solutions empowered by Digital India that has built the infrastructure for years together today serve as **a basis for other emerging interventions** in the fields of start-ups, digital education, seamless banking and payment solutions, agritech, health tech, smart cities, e-governance and retail management.

Source: IE

7th Edition of Indian Ocean Naval Symposium

Why in News

Recently, the 7th edition of Indian Ocean Naval Symposium (IONS) was hosted by the French Navy at Réunion island.

It is a **biennial event** which was **conceived by the Indian Navy in 2008.**



Key Points

- About:
 - The IONS is a voluntary and inclusive initiative that brings together navies of Indian Ocean Region littoral states to increase maritime co-operation and enhance regional security.
 - It also serves to develop an effective response mechanism and humanitarian assistance and disaster relief (HADR) against <u>natural disasters</u>.
 - The chairmanship of IONS has been held by India (2008-10), UAE (2010-12), South Africa (2012-14), Australia (2014-16), Bangladesh (2016-18) and Islamic Republic of Iran (2018-21).

France assumed the Chairmanship in June 2021 for a two-year tenure.

- Members:
 - IONS includes 24 member nations that touch or lie within the Indian Ocean Region (IOR), and 8 observer nations.
 - The members have been geographically grouped into the following **four sub-regions:**
 - **South Asian Littorals:** Bangladesh, India, Maldives, Pakistan, Seychelles, Sri Lanka and United Kingdom (British Indian Ocean Territory)
 - West Asian Littorals: Iran, Oman, Saudi Arabia and United Arab Emirates
 - **East African Littorals:** France (Reunion), Kenya, Mauritius, Mozambique, South Africa, and Tanzania.
 - **South East Asian and Australian Littorals:** Australia, Indonesia, Malaysia, Myanmar, Singapore, Thailand and Timor-Leste.
- Significance For India:
 - IONS fits into India's three-fold ambitions in the region:
 - Strengthening and deepening the relations with the Indian Ocean littoral states;
 - Establishing its leadership potential and aspirations of being a net-security provider; and
 - Fulfilling India's vision of a rules-based and stable maritime order in the IOR.
 - It will help India to consolidate its sphere of influence from the Straits of Malacca to <u>Hormuz</u>.
 - IONS can be used to counter-balance the increasing presence of China in the region.
- Other Important Groupings/Initiatives Associated with IOR:
 - Indian Ocean Rim Association: The Indian Ocean Rim Association (IORA) was established in 1997.

It is aimed at strengthening regional cooperation and sustainable development within the Indian Ocean region.

- Indian Ocean Commission: Recently, India has been approved as an <u>observer</u> of the Indian Ocean Commission, the inter-governmental organization that coordinates maritime governance in the south-western Indian Ocean.
- Security and Growth for All in the Region (SAGAR): It was launched in 2015. Through SAGAR, India seeks to deepen economic and security cooperation with its maritime neighbours and assist in building their maritime security capabilities.
- Asia Africa Growth Corridor: The idea of Asia Africa Growth Corridor
 - (AAGC) emerged in the joint declaration issued by India and Japan in 2016. The AAGC is raised on four pillars of Development and Cooperation Projects, Quality Infrastructure and Institutional Connectivity, Enhancing Capacities and Skills and People-to-People partnership.

Source: PIB

LEAF Coalition

Why in News

LEAF (Lowering Emissions by Accelerating Forest Finance) Coalition was announced at the **Leaders Summit on Climate**, 2021.

LEAF coalition will be one of the largest ever **public-private efforts to protect** <u>tropical forests</u> and **intend to mobilize at least USD 1 billion in financing** to countries committed to protecting their tropical forests.

- About LEAF Coalition:
 - It is a collective of the governments of the USA, United Kingdom and Norway.
 - As it is a public-private effort, thus also supported by transnational corporations (TNCs) like Unilever plc, Amazon.com, Nestle, Airbnb etc.
 - A country willing to participate would need to fulfil certain predetermined conditions laid down by the Coalition.
- Financial Support:
 - The results-based financing model will be used in LEAF.
 - The model weighs on work by the Environmental Defense Fund over two decades, in collaboration with Indigenous communities, forest peoples, Brazilian and US NGOs, and other partners, to protect the Amazon and tropical forests globally.
 - Performance will be measured against the TREES Standard (The REDD+ Environmental Excellence Standard)

- Significance:
 - Platform for Private Leadership: The goal of <u>net zero emissions</u> cannot be reached without bold leadership from the private sector and commitment to leverage its scale, investment capacity and political power to build a more sustainable, resilient and equitable future.
 - Increases Carbon Sink: Tropical forests are massive carbon sinks and by investing in their protection, public and private players are likely to stock up on their <u>carbon credits.</u>

It will help in achieving **Nationally Determined Contributions (NDCs)** under the **Paris Agreement.**

- Achieve REDD+ Objectives: It is a step towards concretising the aims and objectives of the <u>Reducing Emissions from Deforestation and Forest</u> <u>Degradation (REDD+)</u> mechanism.
- Solve Development versus Ecological Commitment: Such a financial impetus is crucial as it incentivises developing countries to capture extensive deforestation and provide livelihood opportunities to forest-dependent populations.
- Complements Other Global Goals: Ending tropical and subtropical forest loss by 2030 is vital to achieving global climate, <u>biodiversity</u> and <u>sustainable</u> <u>development goals</u> as well as sustaining the well-being and cultures of Indigenous peoples and other forest communities.

Reducing Emissions from Deforestation and Forest Degradation

- REDD+ aims to achieve climate change mitigation by incentivizing forest conservation. It monetises the value of carbon locked up in the tropical forests of most developing countries, thereby propelling these countries to help mitigate climate change.
- REDD+ was created by the <u>United Nations Framework Convention on Climate</u> <u>Change (UNFCCC)</u>.

Tropical Forest

- Tropical forests are closed canopy forests growing within 28 degrees north or south of the equator.
- They are **very wet places**, receiving **more than 200 cm rainfall** per year, either seasonally or throughout the year.
- Temperatures are uniformly high between 20°C and 35°C.
- Such forests are **found in Asia, Australia, Africa, South America, Central America, Mexico** and on many of the Pacific Islands.

Scenario in India

• India's total forests is 24.56% of the geographical area of the country.

- Observations made by the **<u>Global Forest Watch</u>**:
 - India lost nearly 38.5 thousand hectares (Kha) of tropical forest between
 2019 and 2020 making up nearly 14% loss of its tree cover.
 Meanwhile, the total tropical forest area in India fell by 0.38%.
 - Also, **a 0.67% decrease in tree cover** has also been recorded across the country in the same period.
 - **Mizoram has witnessed the biggest decline** in forest area with a loss of 47.2 Kha , followed by Manipur, Assam, Meghalaya and Nagaland.
- Conservation Steps Taken:
 - **Indian Forest Policy, 1952:** It became conscious about the need to increase the forest cover to one-third of the total land area.
 - **National Forest Policy, 1988**: The ultimate objective of the National Forest policy was to maintain environmental stability and ecological balance through conservation of forests as a natural heritage.

The National Forest Policy in 1988 made a very significant and categorical shift from commercial concerns to focus on the ecological role of the forests and participatory management.

- <u>Compensatory Afforestation Fund Management and Planning Authority,</u> (<u>CAMPA Funds</u>): For every time forest land is diverted for non-forest purposes such as mining or industry, the user agency pays for planting forests over an equal area of non-forest land, or when such land is not available, twice the area of degraded forest land.
- Some Legislations that Govern Indian Forests:
 - Indian Forest Act 1927
 - <u>Compensatory Afforestation Fund Act 2016</u>
 - Forest Conservation Act 1980
 - Forest Rights Act 2006
 - Wildlife Protection Act 1972

Source: DTE

Heat Dome

Why in News

Recently, the Pacific Northwest and some parts of Canada recorded temperatures around 47 degrees, causing a "historic" heat wave.

This is a result of a phenomenon referred to as a "heat dome".

About:

- The phenomenon begins when there is a strong change (or gradient) in ocean temperatures. In the process known as convection, the gradient causes more warm air, heated by the ocean surface, to rise over the ocean surface.
- As prevailing winds move the hot air east, the northern shifts of the jet stream trap the air and move it toward land, where it sinks, resulting in heat waves.

Jet streams are relatively narrow bands of strong wind in the upper levels of the atmosphere. The winds blow from west to east in jet streams but the flow often shifts to the north and south.

• This strong change in ocean temperature from the west to the east is the reason for the heat dome (HD).

> The western Pacific ocean's temperatures have increased in the past few decades and are relatively more than the temperature in the eastern Pacific.

- HD also prevents clouds from forming, allowing for more radiation from the sun to hit the ground.
- A heat dome is **effectively what it sounds like** an area of high pressure that parks over a region like a lid on a pot, trapping heat. They are more likely to form during La Niña years like 2021, when waters are cool in the eastern Pacific and warm in the western Pacific.



The 'heat dome'

Occurs when the atmosphere traps hot ocean air like a lid or cap

- 1 In summer, the jet stream (which moves the air) shifts northward
- 2 Hot and stagnant air expands upwards
- **3** Strong and **high-pressure** atmospheric conditions combine with influences from La Nina act like a dome or cap
- 4 In a process known as to escape but high pressure pushes it back down
- 5 Under the dome, the air sinks and compresses, releasing more heat
- 6 As winds move the hot air east, the jet stream traps the air where it sinks. resulting in heat waves

- Heat Wave:
 - A heat wave is **a period of abnormally high temperatures,** more than the normal maximum temperature that lasts for more than two days.
 - Heat waves **typically occur between March and June**, and in some rare cases even extend till July.
 - Heat waves can occur with or without high humidity and have the potential to cover a large area, "exposing a high number of people to hazardous heat."
- Impact on Humans (Wet-bulb temperature):
 - As long as the body is producing sweat, which is then able to evaporate quickly, the **body will be able to remain cool even under high temperatures.**
 - Wet-bulb temperature (WBT) is a limit that considers heat and humidity beyond which humans can not tolerate high temperatures.
 - Temperatures beyond WBT can cause heat related illnesses including heat stroke, heat exhaustion, sunburn and heat rashes. Sometimes these can prove fatal.

• Effects of Heat Dome:

- Those living without an air conditioner see the temperatures of their homes rising to unbearably high, leading to sudden fatalities.
- The trapping of heat can also damage crops, dry out vegetation and result in droughts.
- The sweltering heat wave will also **lead to rise in energy demand**, especially electricity, leading to pushing up rates.
- The heat domes **can also act as fuel to wildfires**, which destroys a lot of land area in the US every year.

Climate change and heat domes:

• The weather scientists have been highlighting the effects of climate change on more extreme heat waves.

According to a 2017 NOAA (National Oceanic and Atmospheric Administration) survey, average US temperatures have increased since the late 19th century.

 However, Scientists are usually wary of linking climate change to any contemporary event mainly because of the difficulty in completely ruling out the possibility of the event having been caused by some other reason, or being a result of natural variability.

Source: IE

New Source of Gravitational Waves Discovered

Why in News

Recently, LIGO Scientific Collaboration (LSC) has made the discovery of gravitational waves from a pair of neutron star-black hole (NS-BH) mergers.

- The reverberations from these two objects were picked up using a **global network of gravitational wave detectors**, the most sensitive scientific instruments ever built.
- Until now, the LIGO-Virgo Collaboration (LVC) was only able to observe collisions between pairs of black holes or neutron stars. The NS-BH merger is a hybrid collision.

Black Hole

- A black hole is a **place in space where gravity pulls so much that even light can not get out.** The gravity is so strong because matter has been squeezed into a tiny space.
- Gravitational waves are created when two black holes orbit each other and merge.

Neutron Stars

- Neutron stars comprise one of the possible evolutionary end-points of <u>high mass</u> stars.
- Once the core of the star has completely burned to iron, energy production stops and the core rapidly collapses, squeezing electrons and protons together to form neutrons and neutrinos.
- A star supported by neutron degeneracy pressure is known as a 'neutron star', which may be seen as a pulsar if its magnetic field is favourably aligned with its spin axis.

- About the Gravitational Waves:
 - These are invisible ripples in space that form when:
 - A star explodes in a **<u>supernova</u>**.
 - Two big stars orbit each other.
 - Two <u>black holes</u> merge.
 - Neutron star-Black hole (NS-BH) merges.
 - They **travel at the speed of light** (1,86,000 miles per second) and squeeze and stretch anything in their path.
 - As a gravitational wave travels through space-time, it causes it to stretch in one direction and compress in the other.
 - Any object that occupies that region of space-time also stretches and compresses as the wave passes over them, though very slightly, which can only be detected by specialized devices like LIGO.
 - Theory and Discovery:
 - These were proposed by Albert Einstein in his General Theory of Relativity, over a century ago.
 - However, the first gravitational wave was actually detected by LIGO only in 2015.
- Detection Technique:
 - As the two compact and massive bodies orbit around each other, they come closer, and finally merge, due to the energy lost in the form of gravitational waves.
 - The Gravitational Waves signals are buried deep inside a lot of background noise. To search for the signals, scientists use a **method called matched filtering.**
 - In this method, various expected gravitational waveforms predicted by Einstein's theory of relativity, are compared with the different chunks of data to produce a quantity that signifies how well the signal in the data (if any) matches with any one of the waveforms.
 - Whenever this match (in technical terms "signal-to-noise ratio" or SNR) is significant (larger than 8), an event is said to be detected.
 - **Observing an event in multiple detectors** separated by thousands of kilometers almost simultaneously gives scientists increased confidence that the signal is of astrophysical origin.

- Importance of Discovery:
 - A neutron star has a surface and black hole does not. A neutron star is about 1.4-2 times the mass of the sun while the other black hole is much more massive. Widely unequal mergers have very interesting effects that can be detected.

Inferring from data as to how often they merge **will also give us clues about their origin and how they were formed.**

- These observations help us understand the formation and relative abundance of such binaries.
 - Neutron stars are the densest objects in the Universe, so these findings can also help us understand the behaviour of matter at extreme densities.
 - Neutron stars are also the most precise 'clocks' in the Universe, if they emit extremely periodic pulses.
 - The discovery of pulsars going around Black Holes could help scientists probe effects under extreme gravity.
- LIGO Scientific Collaboration (LSC):
 - LSC was **founded in 1997** and currently made up of more than 1000 scientists from over 100 institutions and 18 countries worldwide.
 - It is a group of scientists focused on the direct detection of gravitational waves, using them to explore the fundamental physics of gravity, and developing the emerging field of gravitational wave science as a tool of astronomical discovery.
 - <u>LIGO Observatories</u>: The LSC carries out the science of the LIGO
 Observatories, located in Hanford, Washington and Livingston, Louisiana as well as that of the GEO600 detector in Hannover, Germany.
 - Other Observatories:
 - VIRGO: Virgo is located near Pisa in Italy. The Virgo Collaboration is currently composed of approximately 650 members from 119 institutions in 14 different countries including Belgium, France, Germany, Hungary, Italy, the Netherlands, Poland, and Spain.
 - The Kamioka Gravitational Wave Detector (KAGRA): The KAGRA detector is located in Kamioka, Gifu, Japan. The host institute is the Institute of Cosmic Ray Researches (ICRR) at the University of Tokyo. This interferometer is underground and uses cryogenic mirrors. It has 3 km arms.

LIGO-India Project

• The <u>LIGO-India observatory</u> is scheduled for completion in 2024, and will be built in the Hingoli District of Maharashtra.

- 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.
 - It will significantly improve the sky localisation of these events.
 - This increases the chance of observation of these distant sources using electromagnetic telescopes, which will, in turn, give us a more precise measurement of how fast the universe is expanding.

Source: IE

Contraction of India's Manufacturing Sector: PMI

Why in News

The IHS Markit India Manufacturing <u>Purchasing Managers' Index (PMI)</u> slipped to **48.1 in** June from **50.8 in May**, moving below the **50-level separating growth from contraction**.

India's manufacturing activity contracted in June for the first time in 11 months as the **second wave of the Covid-19 pandemic** and **strict containment measures negatively impacted demand** and led to renewed contractions in factory orders, production, exports and quantities of purchases.

Pressure point

The purchasing managers' index (PMI) for the manufacturing sector dropped to 48.1 in June from 50.8 in May.



- **PMI** is a **survey-based measure** that asks the respondents about changes in their perception about key business variables as compared with the previous month.
- The purpose of the PMI is to **provide information about current and future business conditions** to company decision makers, analysts, and investors.
- It is calculated separately for the manufacturing and services sectors and then a composite index is also constructed.
- The PMI is a number from 0 to 100.
 - A print **above 50 means expansion**, while a score below that denotes contraction.
 - A reading at **50 indicates no change.**
- If the PMI of the previous month is higher than the PMI of the current month, it represents that the economy is contracting.
- It is usually **released at the start of every month.** It is, therefore, considered a good leading indicator of economic activity.
- PMI is compiled by IHS Markit for more than 40 economies worldwide. IHS Markit is a global leader in information, analytics and solutions for the major industries and markets that drive economies worldwide.
- As the official data on industrial output, manufacturing and Gross Domesr\tic Product (GDP) growth comes much later, PMI helps to make informed decisions at an earlier stage.

- It is different from the Index of **Industrial Production (IIP)**, which also gauges the level of activity in the economy.
 - IIP covers the broader industrial sector compared to PMI.
 - However, PMI is more dynamic compared to a standard industrial production index.

<u>Source: TH</u>

Taal Volcano: Philippines

Why in News

Recently, the Philippines increased the alert level on **Taal Volcano** to **level 3 on a five-level scale** after a **Phreatomagmatic Eruption (PE)** occurred that generated a dark grayish plume, one kilometer high.

Alert Level 3 means there is magmatic unrest, or movement of magma that may further drive succeeding eruptions.



Key Points

• Location:

Situated on the island of Luzon, 50 km from Manila, Philippines.

- Susceptibility:
 - The Philippines is situated at the boundaries of two tectonic plates the Philippines Sea Plate and the Eurasian plate - thus susceptible to earthquakes and volcanism.
 - Taal is one of the most active volcanoes in the Philippines due to its location on the Pacific <u>"Ring of Fire"</u> - a zone of intense seismic activity.
- Phreatomagmatic Eruption: An eruption resulting from the interaction of new magma or lava with water and can be very explosive. The water can be from groundwater, hydrothermal systems, surface runoff, a lake or the sea.

Other **<u>Types of Eruptions</u>** are: Icelandic, Hawaiian, Strombolian, Vulcanian, Pelean and Plinian.

• Dangers:

Possible hazards of **pyroclastic density currents** (clouds of hot gas, ash, and other volcanic debris) and **volcanic tsunami.**

• **Complex Volcano:** It is classified as a "**complex**" **volcano** by the Philippine Institute of Volcanology and Seismology (PHIVOLCS).

A complex volcano, **also called a compound volcano**, is defined as one that doesn't have just one main vent or cone but several eruption points. Another such **example is Mount Vesuvius on the west coast of Italy.**

• Unpredictable: Taal has erupted more than 30 times in the last few centuries, the most recent was in 2020.

Volcano

A volcano is **a vent (opening) in the earth's crust** through which **molten material** erupts suddenly.



<u>Source: IE</u>

First Movable Freshwater Tunnel Aquarium: Indian Railways

Why in News

Recently, Indian Railway (IR) has opened the first movable freshwater tunnel aquarium at Bengaluru Railway Station.

Key Points

- The Krantivira Sangolli Rayanna Railway Station also known as Bengaluru City Railway Station has become the first railway station in India with a movable freshwater tunnel aquarium.
- The aquarium has been **opened by the Indian Railway Stations Development Corporation Limited (IRSDC)** in collaboration with the HNi Aquatic Kingdom.
- The aquarium is a **one-of-its-kind aquatic park based on the Amazon River** (of South America) **concept.**
- This is a 12-feet long aquatic kingdom, **first paludarium** (vivarium that incorporates both terrestrial and aquatic elements) with myriad flora and fauna.
- It is **home to various aquatic animals** such as alligator gar ranging, stingrays, sharks, lobsters, snails and shrimps. The aquarium is adorned with natural rocks and splashes of driftwood, artificial coral rocks.
- This has been built at a cost of Rs 1.2 crore with the **aim of enhancing the passenger** experience at the station.
- It is also aimed at improving revenue earning for IR.
- It is **also educational in a way** that a life size kingdom of fishes can be experienced here.

Source: IE

Kuvempu Award 2020

Why in News

Recently, **Odia poet Dr. Rajendra Kishore Panda** has been selected for the **Kuvempu Rashtriya Puraskar (award) 2020.**

- Dr. Panda, born in 1944, is a **poet and novelist from Odisha.** He has published 16 poetry collections and a novel.
- He was presented the Gangadhar National Award in 2010, and the <u>Sahitya Akademi</u> <u>Award</u> in 1985.

- About:
 - It is a national award instituted in memory of the late poet laureate Kuvempu.
 - The award is given **annually** to a writer who has **contributed** in any of the **languages recognised by the Constitution of India.**
 - The award carries a cash award of Rs. 5 lakh, a silver medal and a citation.
- Kuvempu:
 - **Kuppali Venkatappa Puttappa**, popularly known by his pen name **Kuvempu**, was an Indian poet, playwright, novelist and critic.
 - He is widely regarded as the greatest Kannada poet of the 20th century.
 - He was the first Kannada writer to be decorated with the <u>Jnanpith Award</u> for his version of the Ramayana titled 'Sri Ramayana Darshanam.'

Jnanpith Award

- The Jnanpith award is the highest literary award in India and can only be conferred annually upon an Indian citizen.
- English along with other languages mentioned in Indian Constitution (<u>8th Schedule</u>) is considered for the Award.
- The prize carries a cash award of Rs. 11 lakhs, a citation, and a bronze replica of Vagdevi (Saraswati), the goddess of learning.
- It is sponsored by the cultural organization Bharatiya Jnanpith.

Sahitya Akademi Awards

- Sahitya Akademi award established in 1954, is a literary honour that is conferred annually by Sahitya Akademi, India's National Academy of letters.
- Akademi gives **24 awards annually** to literary works in the languages it has recognized and an equal number of awards to literary translations from and into the languages of India.
- Besides the **22 languages enumerated in the Constitution of India**, the Sahitya Akademi has recognised **English and Rajasthani** as languages in which its programme may be implemented.
- The Sahitya Akademi award is the second-highest literary honour by the Government of India, after the Jnanpith award.

Gangadhar National Award

- Gangadhar National Award For Poetry is a **literary award given in the field of literature for poetry by Sambalpur University.** It is named after Gangadhar Meher.
- The award carries a cash prize of Rs 50,000, a shawl and citation.

<u>Source: TH</u>