News Analysis (29 Sep, 2021)

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Congressional Report on Terrorism: US

Why in News

Recently, the US **Congressional report on terrorism** stated that **Pakistan is home to at least 12 groups designated as Foreign Terrorist Organisation (FTO).**

- The report named **Terrorist and Other Militant Groups in Pakistan,** released by the bipartisan research wing of US Congress in the **Quad summit 2021.**
- Earlier, in February 2021, the **Financial Action Task Force (FATF)** had decided to retain **Pakistan on the greylist.**

Foreign Terrorist Organisation

FTO are foreign organizations that are **designated by the Secretary of State US.** This plays a critical role in fight against terrorism and is an effective means of curtailing support for terrorist activities and pressuring groups to get out of the terrorism business.

Key Points

- **Pakistan Safe Haven for Terror:**
  - Pakistan has **continued to serve as a safe haven for certain regionally focused terrorist groups,** and has allowed groups **targeting Afghanistan as well as groups targeting India** to operate from its territory.
  - Pakistan's neighbours, including Afghanistan and India, and the US have long accused Islamabad of providing safe haven and support to militants.

- **Categorization of Terrorist Groups:**
    - The groups operating in Pakistan can be broadly categorised into **five types:**
        - Globally-oriented
        - Afghanistan oriented
        - India- and Kashmir-oriented
        - Domestically oriented
        - Sectarian (anti-Shia).

Prominent India-Centric Terror Organizations in Pakistan

Name	Formation	FTO Designation	About	Status in India as per the Unlawful Activities (Prevention) Act, 1967
Lashkar-e-Taiba (LET)	Late 1980s	2001	It was responsible for major 2008 attacks in Mumbai, as well as numerous other high-profile attacks.	Banned
Jaish-e-Mohammed (JEM)	2000	2001	Along with LET, it was responsible for the 2001 attack on the Indian parliament, among other attacks. JEM also has openly declared war on the United States.	Banned

Harakat-ul Jihad Islami (HUJI)	1980	2010	Initially it was formed to fight the soviet army, however after 1989, it redirected its efforts toward India, although it did supply fighters to the Afghan Taliban. HUJI today operates in Afghanistan, Pakistan, Bangladesh and India, and seeks annexation of Kashmir into Pakistan.	Banned
Harkat-ul-Mujahideen (HUM)	1985	1997	It operates mainly from Pak-Occupied Kashmir and from some Pakistani cities.	Banned
Hizb-ul Mujahideen	1989	2017	It is the militant wing of Pakistan's largest Islamist political party and is one of the largest and oldest militant groups operating in Jammu and Kashmir.	Banned
Al Qaeda	1988	1999	It has operated primarily from the former Federally Administered Tribal Areas and in the megacity of Karachi, as well as in Afghanistan.	Banned

Steps Taken:

- Modest steps were taken by Pakistan's government to counter **terrorism financing** and to restrain some India-focused militant groups following an early 2019 terrorist attack in Jammu and Kashmir.
- However, it has **yet to take decisive actions against India- and Afghanistan-focused militants,** and that progress on the most difficult aspects of its 2015 National Action Plan to counter terrorism remains unfulfilled specifically its pledge to dismantle all terrorist organisations without delay and discrimination.

Source: IE

Build Back Better World (B3W) Initiative

Why in News

US officials are set to visit Latin America to look for possible projects for the Build Back Better World (B3W) Initiative. B3W is an international infrastructure investment initiative announced by the **Group of Seven (G-7) richest democracies** in June 2021.

The B3W initiative is being seen as the **US' initiative to counter China's Belt and Road Initiative (BRI).**

Key Points

- **B3W & its Guiding Principles:**
    - **Goal:** The Build Back Better Plan is a Covid-19 relief, future economic, and infrastructure package proposed by G-7 countries for developing and lower-income countries.
    - **Components of B3W:** Through B3W, the G7 and other like-minded partners will coordinate in **mobilizing private-sector capital** in four areas of focus:
        - Climate,
        - Health and health security,
        - Digital technology,
        - Gender equity and equality.
    - **Values-Driven Development:** Infrastructure development carried out in a transparent and sustainable manner - financially, environmentally, and socially - will lead to a better outcome for recipient countries and communities.
    - **Good Governance and Strong Standards:** B3W to infuse investment by complying with the standards promoted by the **Blue Dot Network**, relating to the environment and climate, labor and social safeguards, transparency, financing, construction, anti-corruption, and other areas.
    - **Climate-Friendly:** The investments will be made in a manner consistent with achieving the goals of the **Paris Climate Agreement.**
    - **Strong Strategic Partnerships:** B3W will envisage countering the aggressive model of development and establish a more inclusive model of global development.

- **BRI & Associated Issues:**
  - The BRI project was **launched in 2013,** it broadly aims to facilitate cross-border transportation of goods, access to energy, creating demand for existing excess capacity in Chinese industries.
    > China had an overall exposure of investment of around $750 billion between 2013 to mid-2020.
  - However, BRI project has been **heavily criticized** for the following reasons:
    - Western critics have attacked the initiative as **new colonialism,** or the Marshall Plan for the 21st century.
    - BRI is also being seen as a part of China's **debt trap policy,** wherein China intentionally extends excessive credit to another country with the intention of extracting economic or political concessions from the debtor country.
    - Also, projects like **China-Pakistan Economic Corridor (CPEC)**, building of Colombo Port City Project in Sri Lanka are not only commercial in nature but have strategic implications too.

Way Forward

- **Mobilising Funding:** The Infrastructure Bill is estimated to cost $1.2 trillion over five years and the Reconciliation Bill, $3.5 trillion over ten years.
  - Together, both bills form the foundation for US President Biden's economic agenda and are part of his Build Back Better plan.
  - However, these bills are being heavily debated in the American Senate and are less likely to be passed.
  - Thus, there is a need to develop a sustainable funding model for the success of B3W.
- **Reinventing Capitalism:** Covid-19 has exposed the fragility and societally negative outcomes of contemporary capitalist economies.
  > Thus, in order to lead to global development as highlighted by the B3W blueprint, it will require fine-tuning of the current model of Capitalism.
- **Building Consensus in Democracies:** Any plan formulated by vibrant democracies such as these countries usually takes time and has to go through many diplomatic and bureaucratic twists and turns.
  > Thus, the main challenge for G-7 countries is to build global consensus and deliver projects in a time-bound manner.

Source: IE

Landsat 9

Why in News

Recently, NASA has launched **an earth monitoring satellite called Landsat 9** from Vandenberg Space Force Base in California. The satellite is **a joint mission of NASA and the US Geological Survey (USGS).**

This satellite is referred to as NASA's' **new eye in the sky'** that will help study climate change.

Key Points

- **Background:**
  - Landsat-9 is the **continuation of a series of Earth-observing spacecraft stretching back almost 50 years.**
  - The **first Landsat satellite was launched in 1972** and since then, Landsat satellites have collected images of earth and helped understand how land usage has changed over the decades.
  - In **2008,** it was decided that **all Landsat images will be free and publicly available** and the policy has helped scores of researchers, farmers, policy analysts, glaciologists, and seismologists.
  - Landsat images have been used to study the **health of forests, coral reefs, monitor water quality and melting glaciers.**
- **About Landsat 9:**
  - The Landsat 9 **joins Landsat 8 that was launched in 2013** and the satellites together will collect images of Earth's surface.
    - It takes 8 days to capture the whole Earth.
  - Landsat 9 carries instruments similar to the other Landsat satellites, but it is the **most technologically advanced satellite of its generation.**
  - The instruments aboard Landsat 9 are the **Operational Land Imager 2 (OLI-2)** and the **Thermal Infrared Sensor 2 (TIRS-2).**
    - **OLI-2:** It captures sunlight reflected off Earth's surface and studies the visible, near-infrared, and short wave infrared portions of the spectrum.
    - **TIRS-2:** It has a four-element refractive telescope and photosensitive detectors that capture thermal radiation and help study the Earth's surface temperature.
  - Along with the **European Union's Sentinel-2 satellites,** the Landsat Satellite will provide better estimation of the extent of climate change.

Sentinel Satellites

- It is a family of satellites developed by the **European Space Agency (ESA)** under the **Copernicus Programme.**

- The Copernicus Programme is the **Earth Observation Programme** managed by the ESA, **launched in 1998.**
    - It was named after the scientist and observer **Nicolaus Copernicus.** Copernicus' theory of the heliocentric (sun-centric) universe made a pioneering contribution to modern science.
- Sentinel satellites is **a group of six satellites** dedicated for different purposes.
    - **Sentinel 1:** It provides all-weather, day and night radar images.
    - **Sentinel 2:** It delivers high-resolution optical images for land services.
    - **Sentinel 3:** It delivers data on land and ocean.
    - **Sentinel 4 and 5:** Monitor atmosphere from geostationary and polar orbits.
    - **Sentinel 6:** Provides information on oceanography and climate studies.

Earth Observation Satellites of India

- Recently, India has launched **EOS-01 satellite.**
    - It is an earth observation satellite and is intended for applications in agriculture, forestry and disaster management support.
- Earth observation satellites are the satellites equipped with remote sensing technology. Earth observation is the gathering of information about Earth's physical, chemical and biological systems.
    - Many earth observation satellites have been employed on **sun-synchronous orbit.**
- Other earth observation satellites launched by ISRO include **RESOURCESAT- 2, 2A, CARTOSAT-1, 2, 2A, 2B, RISAT-1 and 2, OCEANSAT-2, Megha-Tropiques, SARAL and SCATSAT-1, INSAT-3DR, 3D, etc.**

Source: IE

Cauvery River Water Dispute

Why in News

Recently, the **Cauvery Water Management Authority (CWMA) directed Karnataka to immediately release the balance quantum of water to Tamil Nadu.**

> However, CWMA **dropped discussion on the Mekedatu reservoir project** following "strong protest" from Tamil Nadu, Kerala and Puducherry.

Key Points

- **Cauvery Water Dispute:**
  - **About:**
    - It **involves 3 states and one Union Territory** (Tamil Nadu, Kerala, Karnataka and Puducherry).
    - The genesis of the dispute is 150 years old and dates back to the two **agreements of arbitration in 1892 and 1924** between the then Madras presidency and Mysore.
    - It entailed the principle that the **upper riparian state must obtain consent of lower riparian state** for any construction activity viz. reservoir on the river Cauvery.
  - **Recent Developments:**
    - From **1974, Karnataka started diverting water into its four newly made reservoirs,** without the consent of Tamil Nadu **resulting in a dispute.**
    - To resolve the matter, the **CWDT (Cauvery Water Disputes Tribunal) was established in 1990** which took 17 years to arrive at the **final order (2007)** on how Cauvery water should be shared between the 4 riparian states in normal rainfall conditions.
      - CWDT was constituted by the Central Government, in exercise of the powers conferred by section 4 of the **Inter-State River Water Disputes Act, 1956.**
    - In distress years, a pro-rata basis shall be used, it instructed. The **government** again took 6 year and **notified the order in 2013.**
    - This was **challenged in SC (Supreme Court)** which directed Karnataka to release 12000 cusecs of water to Tamil Nadu prompting protests in the State.
    - The **final verdict of the SC came in 2018** where it declared the **Cauvery a national asset** and largely upheld the water-sharing arrangements finalised by the CWDT and also reduced the allocation of water from Karnataka to Tamil Nadu.
      - As per the SC, Karnataka would get 284.75 thousand million cubic feet (tmcft), Tamil Nadu 404.25 tmcft, Kerala 30 tmcft and Puducherry 7 tmcft.
      - It also **directed the Centre to notify the Cauvery Management Scheme.** The central government notified the **'Cauvery Water Management Scheme'** in June 2018, constituting the **'Cauvery Water Management Authority'** and the 'Cauvery Water Regulation Committee' to give effect to the decision.

- **Mekedatu Reservoir Project:**
  - It aims **to store and supply water for drinking purposes for the Bengaluru city.** Around **400 megawatts (MW) of power** is also proposed to be generated through the project.
  - In **2018, Tamil Nadu approached the SC** against the project even if Karnataka had held that it would not affect the flow of water to Tamil Nadu.
    - TN is opposed to any project being proposed in the upper riparian unless it was approved by the SC.

River Cauvery

- It is **known as 'Ponni' in Tamil,** also known as **Ganga of the south,** and it is the **fourth largest river of southern India.**
- It is a sacred river of southern India. It **rises on Brahmagiri Hill of the <u>Western Ghats</u> in southwestern Karnataka state,** flows in a southeasterly direction through the states of Karnataka and Tamil Nadu, and descends the **<u>Eastern Ghats</u>** in a series of great falls and drains into Bay of Bengal through Pondicherry.
  - Some of its **tributaries** are Arkavathi, Hemavathi, Lakshmana Theertha, Shimsa, Kabini and Harangi.

Way Forward

- The states need to shed the regional approach as the solution lies in cooperation and coordination, not in conflict. The planning must be done at the basin level to make the solution sustainable and ecologically viable.
- In the long term, there is a need to recharge the river through afforestation, river linking, etc and increased focus is needed on increasing water use efficiency viz. micro irrigation, awareness in people to prudently use water and water smart strategies.

<u>Source: TH</u>

Airspace Map of India

Why in News

Recently, the **Ministry of Civil Aviation** has launched an **airspace map of India for drone operations,** which shows **red, yellow and green zones** across the country.

- It will **allow civilian drone operators to check the demarcated no-fly zones** or where they need to undergo certain formalities before flying one.
- Earlier, the **'Liberalised Drone Rules, 2021'** based on "trust, self-certification and non-intrusive monitoring" was unveiled and also the **Production-Linked Incentive (PLI) scheme** for the drone industry was announced.

Key Points

About:

Green Zone	Yellow Zone	Red Zone
- It is the **airspace up to 400 feet** that has not been designated as a red or yellow zone, and up to 200 feet above the area located between 8-12 km from the perimeter of an operational airport. **No permission is required** for operating drones with an all-up weight of up to 500 kg.	- It is the airspace above **400 feet in a designated green zone,** and above 200 feet in the area located between 8-12 km from the perimeter of an airport, and above ground in the area located between 5-8 km from the perimeter of an airport. **Require permission from the concerned air traffic control authorities -** which could be either the Airports Authority of India, the Indian Air Force, the Indian Navy, Hindustan Aeronautics Ltd, etc as the case may be.	It is the **'no-drone zone'** within which drones can be operated **only after a permission from the Central government.**

The Drone Rules, 2021:

- The aim of the Rules is to **create a 'digital sky platform' ("the Platform")** which is a business-friendly single-window online system, with minimum human interference, where most of the permissions will be self-generated.
- The Rules have **reduced the red-tape** involved in the process of seeking compliance:
    - Quantum of fee has been **reduced to nominal levels** and delinked with size of the drone.
    - Easier process is **specified for transfer and deregistration of drones** through the digital sky platform.
    - **Nano and model drones** (made for research or recreation purposes) are exempt from type certification.
- **Coverage of drones** under Drone Rules, 2021 has been **increased from 300 kg to 500 kg.** This will **cover drone taxis also.**
- **Type Certificate is required only when a drone is to be operated in India.** Importing and manufacturing drones purely for exports are exempt from type certification and unique identification number.
- **Drone corridors** will be developed for cargo deliveries.

Drones

- **About:**
    - Drone is a layman terminology for **Unmanned Aircraft (UA).** There are **three subsets** of UA- **Remotely Piloted Aircraft, Autonomous Aircraft and Model Aircraft.**
        Remotely Piloted Aircraft consists of remote pilot station(s), the required command and control links and any other components, as specified in the type design.
    - **Remotely piloted aircraft** have been divided into **five categories** based on their weight (existing rules)
        - Nano : Less than or equal to 250 grams.
        - Micro : From 250 grams to 2kg.
        - Small : From 2 kg to 25kg.
        - Medium : From 25kg to 150kg.
        - Large : Greater than 150kg.

- **Importance:**
  - Drones **offer tremendous benefits** to almost all sectors of the economy.
  - These include – agriculture, mining, infrastructure, surveillance, emergency response, transportation, **geo-spatial** mapping, defence, and law enforcement to name a few.
  - Drones can be **significant creators of employment and economic growth** due to their reach, versatility, and ease of use, especially in India's remote and inaccessible areas.
    > Recently, the **Telangana government** has selected 16 Primary Healthcare Centres (PHCs) for pilot testing the ambitious **'Medicine from the sky'**, the first-of- its-kind project. The project involves **delivery of medicines through multiple drones.**

Source: IE

Global Roadmap to Defeat Meningitis: WHO

Why in News

The **World Health Organization (WHO)** has launched the **first-ever global strategy** to defeat meningitis - **'Global Roadmap to Defeat Meningitis by 2030'**.

Key Points

- **About:**
  - **Goals:** The roadmap includes three visionary goals:
    - **Eliminate epidemics of bacterial meningitis.**
    - **Reduce cases of vaccine-preventable bacterial meningitis** by 50% and deaths by 70%.
    - **Reduce disability** and improve quality of life after meningitis of any cause.
  - **Aims:**
    - **Achievement of high immunisation coverage**, development of new affordable vaccines and improved prevention strategies and outbreak response.
    - **Speedy diagnosis** and optimal treatment for patients.
    - Good data to guide prevention and control efforts.
    - **Care and support** for those affected, focusing on early recognition and improved access to care and support for after-effects.
    - **Advocacy and engagement**, to ensure high awareness of meningitis, accountability for national plans, and affirmation of the right to prevention, care and after-care services.

- **Meningitis:**
  - **About:** Meningitis is **an inflammation (swelling) of the protective membranes covering the brain and spinal cord.**
    - It is **predominantly caused by bacterial and viral infection**. However, i**njuries, cancer, certain drugs, and other types of infections** also can cause meningitis.
  - **Symptoms:** Severe headache that seems different from normal, Sudden high fever, Stiff neck, Confusion or difficulty concentrating, etc.
  - **Transmission: Most bacteria** that cause meningitis such as *meningococcus, pneumococcus and Haemophilus influenzae* are carried in the human nose and throat.
    - They spread from **person to person by respiratory droplets or throat secretions.**
    - Group B streptococcus (bacteria) is often spread from **mother to child around the** time of birth.
  - **Impact:** Meningitis is fatal and debilitating, striking fast with serious health, economic and social consequences, including life-long disabilities, and affecting people of all ages in all countries.
    - Meningitis caused by **bacterial infection causes around 2,50,000 deaths** a year and can lead to **fast-spreading epidemics.**
    - It **kills a tenth of those infected**, mostly children and young people and **leaves a fifth with long-lasting disability**, such as seizures, hearing and vision loss, neurological damage, and cognitive impairment.
  - **Spread:** Meningitis epidemics have occurred in the last decade in all regions of the world. But it is most common in the **'Meningitis Belt,'** which spans 26 countries across **sub-Saharan Africa.**
  - **Available Vaccines:** Meningococcal, Haemophilus influenzae type b and Pneumococcal vaccines.
  - **Treatment:** A range of antibiotics is used to treat meningitis, including penicillin, ampicillin, and ceftriaxone.

Source: DTE

Akash Prime Surface-to-Air Missile: DRDO

Why in News

Recently, the **Defence Research and Development Organisation** (DRDO) tested a new version of the Akash Missile – **'Akash Prime'** – from the Integrated Test Range (ITR), Chandipur, Odisha.

Earlier, DRDO launched the **Akash-NG** (New Generation) and the **Man Portable Anti Tank Guided Missile** (MPATGM).

Defence Research & Development Organisation

- It is the **Research & Development wing of the Ministry of Defence,** Govt of India, with a vision to empower India with cutting-edge defence technologies.
- It was **established in 1958** after combining the Technical Development Establishment (TDEs) of the Indian Army and the Directorate of Technical Development & Production (DTDP) with the Defence Science Organisation (DSO).

Key Points

- **About:**

    - In comparison to the existing Akash system, it is equipped with **indigenous active RF (Radio Frequency) seeker** for improved accuracy, which makes sure that the target at which the missile is fired is hit.
    - Other improvements were also incorporated in Akash Prime like ensuring **reliable performance** under a **low-temperature** environment at **higher altitudes.**
- **Development & Production:**

    Developed by Defence Research & Development Laboratory (DRDL), Hyderabad in collaboration with other DRDO laboratories under the Missiles and Strategic Systems (MSS).

- **Akash missile:**
  - Akash is India's first indigenously produced **medium range SAM** that can engage multiple targets from multiple directions and it can be **launched from mobile platforms like battle tanks or wheeled trucks.** It has nearly 90% kill probability. The development of the Akash SAM was started by the DRDO in the late 1980s as part of the <u>Integrated Guided Missile Development Programme.</u>
  - It is unique in the way that It can simultaneously engage **multiple targets in group mode or autonomous mode.**
  - It has **built-in Electronic Counter-Counter Measures** (ECCM) features, which means that it has mechanisms on-board that can **counter the electronic systems** that deceive the detection systems.
  - The missile is **supported by the indigenously developed <u>radar</u> called 'Rajendra'.**
  - It can **engage targets at a speed 2.5 times more than the speed of sound** and can detect and destroy targets flying at low, medium and high altitudes.
  - The missile is reportedly **cheaper and more accurate** than US' Patriot missiles due to its solid-fuel technology and high-tech radars.

Integrated Guided-Missile Development Programme

- It was **conceived by Dr. A.P.J. Abdul Kalam** to enable India **attain self-sufficiency** in the field of missile technology. b
- The **5 missiles (P-A-T-N-A)** developed under this program are:
  - **P**rithvi: Short range surface to surface ballistic missile.
  - **A**gni: Ballistic missiles with different ranges, i.e. Agni (1,2,3,4,5)
  - **T**rishul: Short range low level surface to air missile.
  - **N**ag: 3rd generation anti-tank missile.
  - **A**kash: Medium range surface to air missile.

<u>Source: IE</u>

Aapada Mitra Programme

Why in News

Recently, the government has announced plans to have <u>Disaster Management</u> Volunteers **(Aapda Mitras)** in 350 districts of the country also released documents for **Common Alerting Protocol (CAP)**

CAP is a simple but **general format for exchanging all-hazard emergency alerts** and public warnings over all kinds of networks.

Key Points

- **About:**
  - It is a <u>**Central Sector Scheme**</u> that was launched in May 2016. <u>**NDMA (National Disaster Management Authority)**</u> is the implementing agency.
  - It is a programme to identify suitable individuals in **disaster-prone** regions who can be trained to be first responders in times of disasters.
- **Aim:**
  - **To provide the community volunteers** with the skills that they would need to **respond to their community's immediate needs** in the aftermath of a disaster thereby enabling them **to undertake basic relief and rescue tasks during emergency situations** such as
- **Objectives:**
  - **Training institutions** to be empanelled by respective States/UTs at the State/UT level.
  - **To train community volunteers** in life saving skills of disaster response (flood relief and rescue), coordination, assistance, and provide personal protective equipment and emergency responder kits;
  - To create a **Community Emergency Stockpile/Reserve** at the district/block level containing essential light search and rescue equipment, medical first aid kits, etc;
  - To **disseminate training and education tools** developed under the project to more flood prone districts in subsequent phases of the scheme.

National Disaster Management Authority

- NDMA is the **apex statutory body for disaster management** in India. It is headed by the Prime Minister of India.
- It was formally **constituted on 27th September 2006,** in accordance with the <u>**Disaster Management Act, 2005**</u>.
- Its primary purpose is **to coordinate response to natural or man-made disasters and for capacity-building in disaster resiliency and crisis response.**
- It **envisages to build a safer and disaster resilient India** by a holistic, proactive, technology driven and sustainable development strategy that involves all stakeholders and fosters a culture of prevention, preparedness and mitigation.

<u>**Source: IE**</u>

INSPIRESAT-1 Cubesat Satellite

Why in News

INSPIRESat-1 CubeSat, developed under the **International Satellite Program in Research and Education (INSPIRE),** is ready for launch.

Key Points

- **About:**
  - It is a small scientific satellite which will be placed in a <u>**low earth orbit**</u>, equipped with a **Compact Ionosphere Probe** for studying the **earth's** <u>ionosphere.</u>
    - The **ionosphere is the part of the atmosphere** that is ionized by **solar radiation.**
    - CIP is an all-in-one **plasma sensor** that uses a single instrument to perform multiple sensor functions in a time-sharing mechanism.
  - It will also provide a greater understanding of why the <u>**Sun's corona**</u> **is orders of magnitude hotter than the photosphere,** why there is an abundance of elements change during different solar events, and how these events **affect the earth's ionosphere.**
    > An **order of magnitude** is an exponential change of plus-or-minus 1 in the value of a quantity or unit.
  - It weighs less than 10kg and will be launched aboard an upcoming <u>**Polar Satellite Launch Vehicle (PSLV)**</u> of the <u>**Indian Space Research Organisation (ISRO).**</u>
    - **PSLV** is the **third generation launch vehicle of India.** It is the first Indian launch vehicle to be **equipped with liquid stages.**
    - It is a **four-staged launch vehicle** with first and third stages using solid rocket motors and second and fourth stages using liquid rocket engines.
- **Developed By:**
  - Laboratory for Atmospheric and Space Physics (LASP) at the University of Colorado Boulder in the U.S.
  - National Central University, Taiwan
  - Nanyang Technological University in Singapore
  - Indian Institute of Space Science and Technology (IIST)

INSPIRE

- INSPIRE is a **consortium of universities with active space programs,** formed to advance space science and engineering.
- A **constellation of earth and space-weather observation satellites is envisaged** under the INSPIRE program which includes a series of INSPIRESats i:e INSPIRESat-1 to INSPIRESat-7.

Cubesat

- A **cube satellite (cubesat)** is a standardized, **low cost, small satellite** design typically used for technological demonstration and research.
- It is a **Nanosatellite** and other Nanosatellites include PocketQubes, TubeSats, Sun Cubes, ThinSats etc.
    - **Nanosatellites** are any satellite weighing less than 10 kilograms.

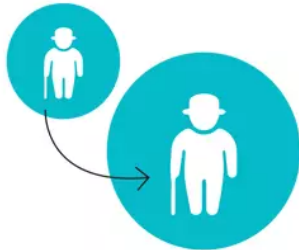**Source: TH**

Elder Line: Toll-Free Number for Elderly

Why in News

Recently, the **Ministry of Social Justice and Empowerment** launched the **Elder Line, the first Pan-India toll-free helpline number** (14567) for **Senior Citizens**, ahead of **International Day of Older Persons**, which is observed on 1st October every Year.

Earlier **SAGE (Seniorcare Aging Growth Engine) initiative** was launched.

300M ELDERLY BY 2050

30 years from now, the elderly population in India is expected to triple from **104 million** in 2011 to **300 million** in 2050

Elderly population in **India** (**134m** in 2020) is fast reaching the current size of population of **Mexico** (**130m**) or **Russia** (**143m**)

The 2050 population of elderly will be close to the population of the US (**326m** in 2018) today

India's **12 million** population of 80+ is equal to the total population of countries such as Belgium, Greece, or Cuba

Key Points

- **About:**
  - It provides **information, guidance, emotional support** - particularly on pension, medical and legal issues - besides immediate assistance in cases of abuse.
  - It is devised **to provide all senior citizens, or their well-wishers, with ONE platform** across the country **to connect and share their concerns** and get information and guidance on problems that they face on a day-to-day basis.
- **Need:**
  - According to the **Longitudinal Ageing Study of India**, India will have over 319 million elderly by 2050 compared to the 120 million now.
  - The senior citizen population faces several challenges such as mental, financial, emotional, physical, and legal.
  - The **Covid-19 pandemic** has aggravated the situation of senior citizens.

Ageing

- Ageing is a continuous, irreversible, universal process, which starts from conception till the death of an individual.
- However, the age at which one's productive contribution declines and one tends to be economically dependent can probably be treated as the onset of the aged stage of life.
- The **National Elderly Policy defines people in the 60+ age group as elderly.**

Source: TH