19th - 25th July Weekly Compilation

(The Hindu+ Indian Express + PIB + Other World Wide News)

❖ **Ganjam Slender Geeko** **(Down to Earth)**

Why in News: **Odisha's forest officials have announced measures to preserve the newly discovered tiny gecko species named Ganjam Slender Gecko.**

Ganjam Slender Gecko

- Ganjam Slender Gecko is a tiny gecko species of the genus Hemiphyllodactylus.
- The species was first spotted within the premises of a temple at Humma in Ganjam district in 2014.
- They grow 6 cm in length. They feed on ants, termites, small roaches, spiders, and beetles.
- The only habitat of the species is Jhadeshawar sacred grove. Moreover, they are only found in mango trees surrounding the temple. They were never found on concrete walls or below rock boulders, unlike other members of the genus.
- **This new species is the 7th Indian species of the genus, the second from the northern Eastern Ghats and 41st globally. It is also the first non-island species of the genus which is distributed in lowland habitats.**

Geckos

- Geckos are reptiles. They are found on all the continents except Antarctica. These colorful lizards have adapted to habitats from rainforests to deserts to cold mountain slopes.
- Most geckos are nocturnal, which means they are active at night but day geckos are active during the day and nibble on insects, fruits and flower nectar.

Important Gecko Species of India in news

- **Indian golden gecko:** It is a species of gecko known only from the Eastern Ghats of India. It was rediscovered from the hills near present-day Tirupati.
- **IUCN Status**: Least Concern (LC).
- Schedule 1 of WPA (Wildlife Protection Act).

- **Common House Gecko:** It is a gecko species native to South and Southeast Asia. It is also known as the Asian house gecko, Pacific house gecko, wall gecko, house lizard, Tayoto, or moon lizard.
- **IUCN Status:** Least Concern (LC)

- **Tokay gecko or Gekko gecko:** They are found from northeast India to the Indo-Australian Archipelago and tropical rain forests.
- Schedule III of the Indian Wildlife Protection Act.
- **IUCN Status:** Least Concern (LC)

Dwarf gecko: A New species of lizard, the smallest known Indian gekkonid, was discovered in 2020 in the Eastern Ghats. The first species was reported from the Velikonda Range in Andhra Pradesh.

❖ UMANG App   (Source: PIB)

Why in News: **The Ministry of Electronics & Information Technology (MeitY) has enabled map services in UMANG (Unified Mobile Application for New-age Governance) App through an MOU with MapmyIndia.**

With this, citizens will be able to find government facilities nearest to their location, such as mandis, blood banks etc.

UMANG app

- UMANG mobile app was launched in **2017. It is a Government of India single, unified, secure, multi-channel, multi-platform, multi-lingual, multi-service mobile app.**
- It brings major government services ranging from Central to Local Government bodies on a single mobile app. It is with a larger goal to make the government accessible on the mobile phones of citizens.
- **UMANG is developed** by the Ministry of Electronics and Information Technology (MeitY) and National e-Governance Division (NeGD) to drive Mobile Governance in India.
- **Current Services provided by UMANG:** UMANG app has already started to provide map functionality through MapmyIndia in the following services. Such as:
  - Mera Ration – To identify and navigate to the Nearest Fair Price Shops),
  - eNAM – To identify and navigate to the nearby mandis pointed
- **Future Services by UMANG:** To further increase usefulness to citizens, the map functionality will be shortly enabled in many more services such as:

- ESIC: Users can view ESIC centers such as hospitals/dispensaries on the map view and navigate to them.
- The National Crime Records Bureau (NCRB) provides information corresponding to nearby police stations on the map.
- Pradhan Mantri Gram Sadak Yojana (Meri Sadak) will help users to raise complaints of damaged roads (under PMGSY) by selecting the road on the MapmyIndia platform.

❖ Mid Day Meal Scheme   (Source: The Hindu)

Why in News: A Study titled "Intergenerational nutrition benefits of India's national school feeding program'" has been published in Nature Communications.

The study used nationally representative data on mothers and their children from 1993 to 2016 to assess whether the mid-day meal scheme has supported intergenerational improvements in a child's linear growth.

Key Findings of the Study

- The study has found that the midday meal scheme was associated with 13-32% of the improvement in the height-for-age scores in India between 2006 and 2016.
- Girls who had access to free lunches provided at government schools had children with a higher height-to-age ratio than those who did not. Moreover, the linkages between midday meals and lower stunting in the next generation were stronger in the lower socio-economic strata

Importance of Mid Day Meal Scheme

- In India, more than one in three children is stunted or too short for their age, which reflects chronic under nutrition. The fight against stunting has often focused on boosting nutrition for young children.
- However, nutritionists have long argued that maternal health and well-being is the key to reducing stunting in their offspring. Hence, the study has noted that interventions to improve maternal height and education must be implemented years before those girls and young women become mothers.
- The interventions in fields such as women's education, fertility and the use of health services will reduce malnutrition.

Mid Day Meal Scheme is a centrally sponsored scheme launched in 1995 by the Ministry of Education.

Objective

- Firstly, to address the issues of hunger and education in schools by serving hot cooked meals;
- Secondly, to improve the nutritional status of children
- Thirdly, to improve enrollment, attendance and retention rates in schools and other education centers.

Origin of the Scheme

- The roots of the scheme trace back to the pre-independence era. The erstwhile British administration has introduced the midday meal program in 1925 in Madras Corporation.
- The French administration in 1930 had also introduced a midday meal program in the Union Territory of Pondicherry.

Features of the Scheme

- Under the Scheme, cooked meals are provided to every child within the age group of six to fourteen years and studying in classes I to VIII.
- Cooked meal having nutritional standards of 450 calories and 12 gm of protein for primary (I-V class) and 700 calories and 20 gm protein for upper primary (VI-VIII class).
- If the Mid-Day Meal is not provided in school on any school day due to non-availability of food grains or any other reason. Then the State Government shall pay food security allowance by 15th of the succeeding month.

❖ **COVID Teeka Sang Surakshit Van, Dhan aur Uddyam Campaign   (PIB)**

Why in News: The Minister of Tribal Affairs has virtually launched the nationwide campaign titled "COVID Teeka Sang Surakshit Van, Dhan aur Uddyam". COVID Teeka Sang Surakshit Van, Dhan aur Uddyam Campaign

- **The campaign has been launched by the Tribal Cooperative Marketing Development Federation of India (TRIFED) under the Ministry of Tribal Affairs.**
- **Aim: To accelerate the pace of COVID vaccination among tribals.**

Key Features of the Campaign

The campaign aims to clear all the misconceptions related to Covid vaccination among the tribal people. It will motivate them to get themselves vaccinated so that they don't suffer in the future.

The campaign will do this with the help of Van Dhan Vikas Kendras (VDVK), traditional village headsmen, SHGs and ground-level workers in villages. With this, the campaign hopes to make Van Dhan Vikas Kendras and villages to be the first in respective states to be declared COVID free and free of all restrictions.

❖ Moon Wobble   (Source: Express)

Why in News: Scientists are estimating that moon wobble would bring high tides in some coastlines of the world in the next decade. This may cause severe flooding, threaten coastal communities and lead to submergence of the coastal landscape.

Background

The phenomenon of moon wobble is expected to enhance flooding on Earth in the middle of the next decade. The assumption is based on a study published in the journal Nature Climate Change.

About the study

- It aims to untangle all of those variables that are needed for improving predictions about the future of floods.
- It found that our oceans are rising because of climate change. They're getting awfully close to the brim in coastal communities due to decades of sea-level rise caused by rising temperatures.
- It warned that the moon wobble would heighten high tides in the middle of the 2030s, but it also showed that this prediction does not apply uniformly to every coastline everywhere.

Moon wobble

- It is a regular oscillation that humans have known about for centuries.
- It is one of many factors that can either exacerbate rising sea levels or counteract them, alongside other variables like weather and geography.

The moon revolves around the Earth about once a month, and that orbit is a little tilted. To be more precise, the moon's orbital plane around the Earth is at an approximate 5-degree incline to the Earth's orbital plane around the sun. Because of that, the path of the moon's orbit seems to fluctuate over time, completing a full cycle — sometimes referred to as a nodal cycle — every 18.6 years.

Effect of moon wobble

- High tides on this planet are caused mostly by the pull of the moon's gravity on a spinning Earth. On most beaches, you would see two high tides every 24 hours.
- At certain points along the cycle, the moon's gravitational pull comes from such an angle that one of the day's two high tides is a little higher, at the expense of the other.
- During its most rapid upward phase, it acts to enhance the effective sea level, and during its most rapid downward phase, like we're in now, it acts to suppress the effective sea level.
- As per the study, the wobble could cause high tide levels at a beach to oscillate by 1 or 2 inches over the course of its long cycle, thereby raising the baseline.
- The more your baseline is raised, the smaller the weather event you need to cause a flooding event.

High-tide flooding related to climate change is expected to break records with increasing frequency over the next decade. It's important to prepare for the mid-2030s, as it is the point where the switch flips and the natural cycle of the moon starts to amplify the rate of sea-level rise.

❖ **Dairy Investment Accelerator**   **(PIB)**

Why in News: The Department **of Animal Husbandry and Dairying (DAHD) has set up a Dairy Investment Accelerator under its Investment Facilitation Cell.**

Dairy Investment Accelerator is a cross-functional team constituted to serve as the interface with investors. It shall provide support across the investment cycle by:

- Offering specific inputs for evaluation of investment opportunities
- Addressing queries about the application to govt. schemes
- Connecting with strategic partners
- Providing on-ground assistance with state departments & relevant authorities.

Other Functions of Dairy Investment Accelerator:

Dairy Investment Accelerator will also organize a series of events with global & local industry participants to facilitate direct interactions with government officials and connect with other players in the Dairy Industry. Moreover, it would also generate awareness among investors about the Animal Husbandry Infrastructure Development fund (AHIDF).

India's Dairy Sector

India is the largest milk producer, contributing 23% of global milk production. Annual milk production in the country has grown by 6.4% (CAGR) in the past 5 years.

Dairy is also the single largest agricultural commodity, contributing 5% of the national economy and employing 80 million farmers directly. Moreover, the Dairy sector has also seen substantial foreign direct investment (FDI) constituting about 40% of FDIs in the Indian food sector.

❖ Monkey B Virus   (Indian Express)

Why in News: China has reported the first human infection case with Monkey B virus (BV) after a Beijing-based veterinarian was confirmed with the same a month after he dissected two dead monkeys in early March.

Monkey B virus (BV)

- Monkey B virus is an alphaherpesvirus enzootic (endemic) in macaques and it was initially isolated in 1932.
- Alphaherpesviruses are pathogens or neuro invasive viruses that establish lifelong infections in the peripheral nervous system of humans and many other vertebrates.
- B virus is also commonly referred to as herpes B, herpesvirus simiae, and herpesvirus B.
- B virus can survive for hours on surfaces, particularly when moist.

Transmission

- The infection can be transmitted via direct contact and exchange of bodily secretions of monkeys and has a fatality rate of 70% to 80%.
- Human-to-human Transmission: Till date, only one case has been documented of an infected person spreading B virus to another person.

Symptoms

- The first indications of B virus infection are typically flu-like symptoms such as fever and chills, muscle ache, fatigue and headache, following which an infected person may develop small blisters in the wound or area on the body that came in contact with the monkey.
- In the later stage, the virus can lead to the loss of muscle coordination and neurological damage.

Treatment
Currently, there are no vaccines that can protect against B virus infection. Timely antiviral medications could help in reducing the risk to life.

❖ Peagsus   (The Hindu)

Why in News: According to a report, Pegasus spyware may have been used to conduct surveillance on about 300 Indians including two Cabinet ministers' three opposition leaders, a Constitutional authority, government officials, scientists and about 40 journalists.

Decoding Pegasus

Pegasus is a spyware, developed and licensed by an Israeli company, NSO Group. It can be used to infiltrate smartphones that run on both iOS and Android operating systems, and turn them into surveillance devices. A low down:

- Pegasus's method of attack is called zero-click attacks, which do not require any action by the user. The spyware can hack a device simply by giving a **missed WhatsApp call**

- It will **alter call logs** so that the user has no knowledge of what happened

- Once the spyware enters the device, it installs a module to track call logs, read messages, emails, calendars, Internet history, and gather location data to send the information to the attacker

- It can also be **installed manually** on a device or over a wireless transceiver

- If it fails to connect with its command-and-control server for more than 60 days, it **self-destructs and removes all traces**

- If it detects that it was installed on the wrong device or SIM card, it will **self-destruct**

- Amnesty International noted that despite issuing security updates, Android and **iOS devices were breached**

- To stay safe, users need to ensure that software in devices is updated and all apps are installed directly through the offical stores. **No suspicious email or text should be clicked**

Pegasus

- It is a type of malicious software or malware classified as a spyware.
- It is designed to gain access to devices, without the knowledge of users, and gather personal information and relay it back to whoever it is that is using the software to spy.
- Pegasus has been developed by the Israeli firm NSO Group that was set up in 2010.
- The earliest version of Pegasus discovered which was captured by researchers in 2016, infected phones through what is called spear-phishing – text messages or emails that trick a target into clicking on a malicious link. Since then, however, NSO's attack capabilities have become more advanced. Pegasus infections can be achieved through so-called "zero-click" attacks, which do not require any interaction from the phone's owner in order to succeed.
- These will often **exploit "zero-day"** vulnerabilities, which are flaws or bugs in an operating system that the mobile phone's manufacturer does not yet know about and so has not been able to fix.

One of the worrying aspects of the Pegasus spyware is how it has evolved from its earlier spear-phishing methods using text links or messages to '**zero-click attacks.**

Zero Click Attack

- A zero-click attack helps spyware like Pegasus gain control over a device without human interaction or human error.
- So all awareness about how to avoid a phishing attack or which links not to click is pointless if the target is the system itself.
- Most of these attacks exploit software that receives data even before it can determine whether what is coming in is trustworthy or not, like an email client.

Difference between Zero Click Attacks and Spear Phishing

- Zero-click attacks occur only when an attacker is able to take over a device remotely after successfully exploiting vulnerabilities in the software and hardware of the phone.
- On the other hand, spear phishing is a social engineering attack where a hacker sends a fraudulent message which is designed to trick a victim into revealing confidential information or infect their device with malicious software.

Zero-click attacks are hard to detect given their nature and hence even harder to prevent. Detection becomes even harder in encrypted environments, where there is no visibility on the data packets being sent or received. One of the things users can do is to ensure all operating systems and software are up-to-date so that they would have the patches for at least vulnerabilities that have been spotted.

❖ SMILE   (Source: PIB)

Why in News: The Ministry of Social Justice and Empowerment has formulated a scheme "SMILE – Support for Marginalized Individuals for Livelihood and Enterprise".

SMILE

- Two Central Sector Schemes namely Comprehensive Rehabilitation of persons engaged in the Act of begging and Comprehensive Rehabilitation for Welfare of Transgender Persons have been merged in a single scheme named SMILE.
- Focus areas: Rehabilitation, provision of medical facilities, counseling, basic documentation, education, skill development, economic linkages and so on.
- The scheme would be implemented with the support of State/UT Governments/Local Urban Bodies, Voluntary Organizations, Community Based Organizations (CBOs), institutions and others.

Features

- The scheme provides for the use of the existing shelter homes available with the State/UT Governments and Urban local bodies for rehabilitation of the persons engaged in the act of Begging.

- In case of the non-availability of existing shelter homes, new dedicated shelter homes are to be set up by the implementing agencies.

- Ministry of Social Justice and Empowerment has also initiated pilot projects on Comprehensive Rehabilitation of Persons engaged in the act of Begging in ten cities namely Delhi, Bangalore, Chennai, Hyderabad, Indore, Lucknow, Mumbai, Nagpur, Patna and Ahmadabad. These pilots are being implemented in these cities by State Governments/UTs/Local Urban Bodies and Voluntary Organizations.

- Several comprehensive measures including survey and identification, mobilization, basic hygiene and medical facilities, providing basic documentation, etc for persons engaged in begging are undertaken under these pilots.

❖ **Oxfam India** **(The Hindu)**

Why in News: Recently, Oxfam India released "Inequality Report 2021: India's Unequal Healthcare Story". Oxfam India's inequality report draws attention to the county's unequal healthcare story hit further by Covid-19.

The report shows that the constant underfunding of the public healthcare system in the last decade have worsened health infrastructure.

Key findings of the report

FITNESS UPDATE

▶ Rural India houses 70% of the population but has only 40% of the beds

▶ Ayushman Bharat only covers the inpatient hospitalisation of the bottom 40% of the population. One in every three hospital admissions of the 500 million beneficiaries that availed of healthcare under the scheme remained out of coverage

▶ Health budget for 2021–22 declined by 9.8% from revised estimates of 2020–21, despite an urgent demand for upscaling medical infrastructure and research due to the pandemic

▶ Availability of free medicines in public healthcare facilities has declined from 31.2% to 8.9% for inpatient care, and from 17.8% to 5.9% for outpatient care over the last two decades

Source: Union Budget 2021–22; Public Health Foundation of India; Richard Mahapatra, (2021), 'Census 2021: India's Urban–rural conundrum'; Ministry of Health and Family Welfare, (2018), 'Hospitals in the Country'

The report says that the absence of universal health coverage has starkly and disproportionately affected marginalised groups at a time when socio-economic inequalities in India are growing because of the Covid-19 pandemic. When it comes to healthcare

- People in the general category are better off than Scheduled Castes (SC) and Scheduled Tribes (ST) households;
- The rich do better than the poor; men are better off than women, and
- The urban population fares better than the rural.

The disastrous second wave of the Covid-19 pandemic further exposed the weakness of India's public healthcare system. Such as, Currently, India ranks 155 out of 167 countries on bed availability and has five beds and 8.6 doctors per 10,000 of its population.
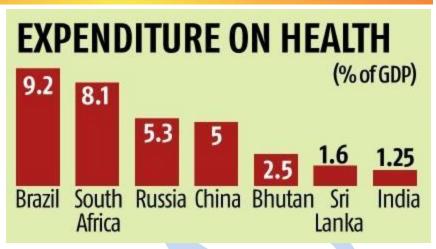
Rural India, which makes for 70 per cent of the population, has barely 40 per cent of the beds. The number of hospital beds per thousand populations in India (at 0.5) is lower than some of the lesser developed countries such as Bangladesh (0.87), Kenya (1.4), and Chile (2.1).

Persistent underfunding of (the) public health system, especially primary health care and inadequate health infrastructure in India remains to be addressed. Over the years, a better health system has, for instance, helped increase life expectancy, but outcomes have varied across gender, caste and income levels. For instance,

The rich, on average, live seven-and-a-half years more than the poor. A woman from the general category lives, on an average, 15 years longer than a Dalit woman

Oxfam India findings show that higher public health allocations have a positive effect on health outcomes in a pandemic. For instance, States such as Odisha and Goa, with higher expenditure on health, also had higher recovery rate from Covid-19.

EXPENDITURE ON HEALTH (% of GDP)

Brazil	South Africa	Russia	China	Bhutan	Sri Lanka	India
9.2	8.1	5.3	5	2.5	1.6	1.25

In Oxfam's "Commitment to Reducing Inequality Report 2020", India ranks 154th in health spending, fifth from the bottom. In the 2021-22 Union Budget, a year following a pandemic, the Ministry of Health and Family Welfare (MoHFW) budget was allocated with a 9.8 percent decline from the Revised Estimates of 2020-21.

❖ **NEA Scout Spacecraft** **(The Hindu)**

Why in News: NASA has announced that its new spacecraft named NEA Scout has completed all required tests and has been safely tucked inside the Space Launch System (SLS) rocket.

NEA Scout is one of several payloads that will launch on Artemis I which is expected to be launched in November 2021.

Artemis I: It is a planned un-crewed test flight for NASA's Artemis program. Under the Artemis program, NASA has aimed to land the first woman on the Moon in 2024 and also establish sustainable lunar exploration programs by 2030.

NEA Scout Spacecraft

- Near-Earth Asteroid Scout or NEA Scout is a small spacecraft developed under NASA's Advanced Exploration Systems Program.
- Aim: Its main mission is to fly by and collect data from a near-Earth asteroid.
- It will take about two years to cruise to the asteroid and will be about 93 million miles away from Earth during the asteroid encounter.
- Significance: It will also be the USA's first interplanetary mission using special solar sail propulsion.

- A solar sail, simply put, is a spacecraft propelled by sunlight. Whereas conventional rockets are propelled by the combustion of rocket fuel, a solar sail is pushed forward by light from the Sun.

Why should we study Near-Earth Asteroids?

- Despite their small size, some of these near-earth asteroids could pose a threat to Earth.
- Hence, understanding their properties could help us develop strategies for reducing the potential damage caused in the event of an impact.
- Moreover, scientists will use this data to determine what is required to reduce risk, increase effectiveness and improve the design and operations of robotic and human space exploration.

Near Earth Objects (NEO)

These are comets and asteroids pushed by the gravitational attraction of nearby planets into orbits which allow them to enter the Earth's neighbourhood. They are composed mostly of water ice with embedded dust particles.

❖ **Project 75(I)**   **(The Hindu)**

Why in News: The Ministry of Defence has request for proposals for the establishment of an eco-system in India for the indigenization and incentivization of critical submarine technology.

The MoD issued the formal tender under project 75(I) to domestically build six conventional submarines for the Navy at a cost of $1 billion each [Rs. 40000 crore each].

Project 75 (I)

Project-75(I) envisages indigenous construction of six modern conventional submarines with contemporary equipment, weapons and sensors, including fuel-cell based AIP, advanced torpedoes, modern missiles and state-of-the-art countermeasure systems.

This would provide a major boost to the indigenous design and construction capability of submarines in India, in addition to bringing in the latest submarine design and technologies as part of the project. This is one of the largest 'Make in India' projects and will serve to facilitate faster and more significant absorption of technology and create a tiered industrial ecosystem for submarine construction in India.

The project envisages indigenous construction of submarines equipped with

- Contemporary equipment

- Weapons and sensors including fuel-cell based AIP [Air Independent Propulsion system]
- Advanced torpedoes
- Modern missiles and state-of-the-art countermeasure systems.

Project 75(I) will be the first project to be implemented under the strategic partnership (SP) model that allows domestic firms to collaborate with foreign OEM (Original Equipment Manufacturer) to produce high-end military platforms in India.

Advantages of AIP System

- AIP system generates power through the reverse electrolysis of oxygen and hydrogen. The two elements, carried on board the submarine, chemically combine to produce electricity. This eliminates the need for a diesel generator by charging the submarine's batteries.
- Submarines with AIP can remain underwater for 10-14 days, reducing its vulnerability to detection.
- A conventional diesel-electric submarine, on the other hand, is powered by electric batteries. Since the batteries get discharged, the submarine must surface every day or two to recharge them by running diesel generators (which require atmospheric air). During this process, the surfaced submarines are visible to radar and vulnerable to attack.

❖ 97th Amendment   (The Hindu)

Why in News: Recently, the Supreme Court (SC) upheld a 2013 judgment of the Gujarat High Court and struck down certain provisions of the Constitution (97th Amendment) Act, 2011.

It gave a major boost for federalism as the 97th Amendment shrank the exclusive authority of States over its co-operative societies, a sector considered as a massive contributor to the economy.

SC Observation

The court concluded that cooperative societies fall under the "exclusive legislative jurisdiction" of the state legislature. The Supreme Court, on the other hand, stated that the Centre has authority over multi-State cooperative groups.

Firstly, the court held that under Entry 32 of the State List and Part IX B has "seriously and considerably harm the State legislature's "exclusive legislative jurisdiction" over their cooperative sector.

In fact, the court noted that Article 243ZI specifies that a state may only enact legislation concerning the incorporation, regulation, and dissolution of a society if it complies with the provisions of Part IXB of the 97th Constitution Amendment.

Secondly, parliament, as the recipient of limited power, can only exercise it in conformity with the procedural and substantive constraints set forth in the Indian Constitution.

Thirdly, the parts of Part IXB of the Amendment dealing with "Multi-State Cooperative Societies" were not struck down by the court due to a lack of ratification. When it comes to Multi-State Co-operative Societies (MSCS) with objectives that are not limited to a single state, the Union of India's legislative power is included in Entry 44 List I. (Union List).

Part IXB of the Constitution is deemed to be in effect only in so far as it relates to multi-State cooperative societies inside the several States and in the Union Territories.

There is no doubt that our Constitution has been described as quasi-federal in that, in terms of legislative powers, the States have exclusive power to legislate on topics reserved exclusively to them within their own sphere.

Though an amendment to the Constitution is the exercise of constituent power, which differs from ordinary legislative power, such constituent power does not convert Parliament into an original constituent assembly.

❖ Aakash NG Missile   (Source: PIB)

Why in News: Defence Research & Development Organisation (DRDO) has successfully flight-tested the New Generation Akash Missile (Akash-NG)

Akash-NG

- Akash-NG is a New Generation Surface-to-Air Missile. It is developed by Defence Research & Development Laboratory (DRDL), Hyderabad in collaboration with other DRDO laboratories.
- Purpose: The Missile is capable of intercepting high maneuvering low radar cross-section aerial targets.

Key Features of Akash NG Missile

- **Rocket Motor:** Akash-NG uses a two-pulse solid rocket motor that replaces the old ramjet on the legacy Akash missile.
- The new motor not just reaches out to 30 kilometers (km), but also generates a high terminal velocity to strike even the fastest and most agile enemy fighters.

- **Lighter Weight:** The weight of the rocket has been brought down from 700 kg to 350 kg. This not just increases range, but also lets the vehicle carry more missiles.
- **New Seeker Head:** Akash-NG has a new seeker head. The seeker locks onto the enemy aircraft and continuously guides the missile to impact the target.

Akash-NG detects enemy fighters at ranges out to 80 km and initiates the launch sequence. By the time the enemy aircraft is 50 km away, the Akash-NG's computers have calculated the launch trajectory and impact point and launched the missile. In just over a minute, the missile blazes its way to the impact point 30 km away and destroys the target.

❖ INDIA Signed 26 Pacts   (The Hindu)

Why in News: The Ministry of Home Affairs (MHA) has informed the Lok Sabha about the steps taken by the Government to combat illicit trafficking of narcotics, drugs, and psychotropic substances.

Steps taken by the Government to combat Illicit Trafficking of drugs

Pacts and Agreements

India has signed 26 bilateral pacts, 15 MoUs, and two agreements on security cooperation with different countries for combating illicit trafficking of narcotic, drugs and psychotropic substances.

Coordination with International Organizations

The Narcotics Control Bureau (NCB) has coordinated with various international organisations for sharing information and intelligence to combat transnational drug trafficking.

Narco Coordination Centre (NCORD)

For coordination among various Central and State agencies, the Narco Coordination Centre (NCORD) mechanism was set up by the MHA in 2016 for effective drug law enforcement. This NCORD system has been restructured into a four-tier scheme up to district level in 2019 for better coordination.

SIMS Portal

Government of India has launched an e-portal called 'SIMS' (Seizure Information Management System) in 2019 for digitisation of pan-India drug seizure data.

❖ Agri Exports (PIB)

Why in News: The World Trade Organization (WTO) has released a report on the trends in World Agricultural Trade in the past 25 years.

Key Findings of the Report

Agricultural Exports

- India has entered into the top 10 list of agricultural produce exporters in 2019 with a sizable share in the export of rice, cotton, soya beans, and meat.
- In 2019, India with a 3.1% share in global agri exports replaced New Zealand as the ninth largest agri exporter.
- The US, which was the largest Agri exporter in 1995(22%), was overtaken by the European Union in 2019(16.1%). The US's share fell to 13.8% in 2019.
- Brazil maintained its ranking as the third-largest exporter increasing its share from 4.8% in 1995 to 7.8% in 2019.
- China climbed from the sixth spot in 1995 (4%) to fourth in 2019 (5.4%).

Rice Exports

- The top rice exporters in 1995 included Thailand (38%), India (26%), and the US (19%).
- In 2019, India (33%) overtook Thailand (20%) to top the list while Vietnam (12%) overtook the US to the third spot.
- The top 10 exporters accounted for more than 96% of exports in both 1995 and 2019.

Other Agri Exports

- **Cotton:** India was the third-largest cotton exporter (7.6%) and the fourth-largest importer (10%) in 2019. It had not featured in the top 10 list in 1995.
- **Soya Bean:** Soya Bean is the largest traded agri product. India (0.1%) has a meager share in the Soya Bean trade but was ranked ninth in the world.
- Meat and Edible Meat: India has been ranked eighth in the world with a 4% share in global trade.
- **Wheat and Meslin:** While India was the seventh-largest wheat and meslin exporter in 1995, it does not feature in the top 10 list in 2019.

❖ Renewable Integration In India 2021 Report (Express)

Why in News: The International Energy Agency (IEA) in association with NITI Aayog has released a report titled "Renewable Integration in India 2021".

Renewable Integration in India 2021 Report

India's Demand for Energy:

- India is the third largest energy-consuming country in the world.
- Also, India has made significant progress towards its universal electrification target for residential users. 100 million people gained electricity access in 2018 alone.
- Per capita electricity consumption across the 28 Indian states and eight union territories is still around a third of the world average and is expected to continue increasing.

Renewable Energy Penetration in India:

- Renewable energy penetration is highly variable by the state in India.
- The share of solar and wind in India's ten renewable-rich states (Tamil Nadu, Karnataka, Gujarat, Rajasthan, Andhra Pradesh, Maharashtra, Madhya Pradesh, Telangana, Punjab, and Kerala) is significantly higher than the national average of 8.2%.
- Solar and wind account for around 29% of annual electricity generation in Karnataka, 20% in Rajasthan, 18% in Tamil Nadu, and 14% in Gujarat.

Future Prospects of Renewable Energy

The report highlights that India's power system can efficiently integrate renewable (175 GW by 2022 and 450 GW by 2030). But this would require identification of resources, proper planning, policy and institutional support, energy storage, and advanced technology initiatives.

❖ National Policy for Rare Disease 2021

Why in News: Union Minister of State for Health and Family Welfare has informed Lok Sabha that the National Policy for Rare Diseases,2021 has been finalized and put in the public domain.

National Policy for Rare Diseases, 2021: The policy aims at lowering the incidence and prevalence of rare diseases based on an integrated and comprehensive preventive strategy comprising:

- Awareness generation

- Premarital, post-marital, pre-conception, and post-conception screening
- Counseling programmes to prevent births of children with rare diseases
- Enable access to affordable health care to patients of rare diseases.

Categorisation: The policy divides Rare Diseases into three groups, namely:

- Group 1: Disorders amenable to one-time curative treatment.
- Group 2: Diseases requiring long-term / lifelong treatment with a relatively lower cost of treatment.
- Group 3: Diseases for which definitive treatment is available, but challenges are to make optimal patient selection for benefit, very high cost, and lifelong therapy.

Initiatives for treatment support for patients of rare diseases under the Policy are as follows: –

- Financial support up to Rs. 20 lakhs under the Rashtriya Arogya Nidhi scheme shall be provided by the Central Government for the treatment of those rare diseases that require a one-time treatment (diseases listed under Group 1).
- Beneficiaries for such financial assistance would not be limited to BPL families. It will be extended to 40% of the population who are eligible as per the norms of Pradhan Mantri Jan Arogya Yojana.
- State Governments can consider supporting patients of such rare diseases that can be managed with special diets or hormonal supplements or other relatively low-cost interventions (Diseases listed under Group 2).

Alternate Funding Mechanism: The government will create an alternate funding mechanism by setting up a digital platform for voluntary individual and corporate donors to contribute to the treatment cost of patients with rare diseases. The fund will be utilized for the treatment of patients suffering from rare diseases, especially those under Group 3.

The treatment cost of the patient will be the first charge on this fund. Any leftover fund after meeting treatment costs can be utilized for research purposes also.

Consortium of Centers of Excellence: It will synchronize prevention and treatment efforts. AIIMS, Delhi will be the nodal hospital to coordinate with other Centers of Excellence for various activities relating to the prevention and treatment of rare diseases.

National Consortium for R&D on therapeutics for Rare Diseases: It will be provided with the mandate to do R&D, technology transfer, and indigenization of therapeutics for rare diseases. It will be convened by the Department of Health Research (DHR) with ICMR as a member.