Pegasus Case

Why in News

Recently, the **Supreme Court (SC)** has appointed an expert committee [to be overseen by a retired apex court judge (**Justice Raveendran Committee**)] in the **Pegasus case**.

 Under the case, the Union Government is alleged to have used spyware for surveillance on private citizens.

Key Points

Supreme Court Judgment:

Judicial Principle Against Bias:

- The court rejected the government's plea to set up its own probe.
- The court asserted that the government appointment of probe would violate the settled judicial principle against bias, i.e., that 'justice must not only be done, but also be seen to be done',"

Formation of Expert Committee:

 On account of the government's inaction to file a detailed response to the allegations made by the petitioners, the Court has constituted a panel of experts under former SC judge Justice R V Raveendran.

Terms of Recommendation:

- The court has also asked the Raveendran committee to make recommendations on a legal and policy framework to protect citizens against surveillance and enhance cyber security of the country.
- The court has set seven terms of reference for the committee, which are essentially facts that need to be ascertained to decide the issue.

TO MAKE RECOMMENDATIONS

- Regarding enactment or amendment of law and procedures on surveillance, and to secure improved right to privacy.
- Regarding enhancing and improving cyber security of nation and its assets.
- To ensure prevention of invasion of right to privacy, other than lawfully, by State and/or non-State entities using such spyware.
- Regarding establishment of a mechanism to flag suspicion of

illegal surveillance of devices.

- Regarding setting up a wellequipped independent premier agency to investigate cyber security vulnerabilities and cyberattacks, and assess cyberattackthreats.
- Regarding any ad hoc arrangement for protection of citizen's rights until Parliament is able to fill the lacunae.
- 7 On any ancillary matter the Committee may deem fit and proper.

Issues Addressed by the SC:

- Right to Privacy:
 - The court reiterated that **right to privacy** is as **sacrosanct as human existence** and is **inalienable to human dignity and autonomy.**
 - The Right to Privacy was held as a part of fundamental rights by the Supreme Court in KS Puttaswamy case, 2017.
 - Any surveillance or snooping done on an individual by the state or any outside agency is an **infringement of that person's right to privacy.**
- Surveillance on Free Speech:
 - The Court has drawn a link between surveillance and self-censorship.
 - The knowledge that one is under the threat of being spied on leads to **self-censorship** and **potential chilling effect.**
 - The chilling effect surveillance can produce is an assault on the vital public-watchdog
 role of the press, which may undermine the ability of the press to provide accurate and
 reliable information (Free Speech).
 - It further held that, an important and necessary corollary of such a right is to ensure the protection of sources of information.
- National Security as a Ground to Block Citizen's Rights:
 - The Court has ruled that the state does not get a "free pass every time the spectre of 'national security' is raised".
 - This also means "no omnibus prohibition can be called for against judicial review" if the matter impinges on national security.

- Hence, any violation of that right by the state, even in national interest, has to follow procedures established by the law.
- Further, the order is a strong **rebuttal of the government's specious and self-serving use of national security** as a ground to criminalise the forms of dissent.

Way Forward

- Role of Judiciary: The order is a welcome and an emphatic reassertion of the SC's role and responsibilities as the custodian of individual rights enshrined in the Constitution.
 - The letter and spirit of the court's order will be tested by how the Justice Raveendran panel addresses them.
- Role of Legislature: There is a need to expedite the enactment of Personal Data Protection
 Bill 2019.
- Role of Executive: Further, It is time for the executive to stop arbitrary use of power, if any.

Source: IE

Krishi UDAN 2.0

Why in News

Recently, the Union Minister of Civil Aviation has released Krishi Ude Desh Ka Aam Naagrik (UDAN) 2.0 to facilitate movement of agricultural produce by air.

- It lays out the vision of improving value realization through better integration and optimization of agri-harvesting and air transportation and contributing to agri-value chain sustainability and resilience under different and dynamic conditions.
- Earlier, ahead of **UDAN Day (21st October)**, the Ministry of Civil Aviation **flagged off 6 routes**, expanding the aerial connectivity of North-East India, under the **UDAN Scheme**.

Key Points

- Krishi UDAN was launched in August 2020, on international and national routes to assist farmers in transporting agricultural products so that it improves their value realisation.
- Krishi UDAN 2.0 will focus on transporting perishable food products from the hilly areas,
 northeastern states and tribal areas.
- It will be implemented at 53 airports across the country mainly focusing on northeast and tribal regions and is likely to benefit farmers, freight forwarders and airlines.
 - Opted airports not only provide access to regional domestic markets but also connect them to international gateways of the country.

Main Features:

o Waiver:

 Facilitate and incentivize movement of agri-produce by air transportation by giving a full waiver of landing, parking, Terminal Navigation and Landing Charges and Route Navigation Facilities Charges for domestic airlines.

Hub and Spoke Model:

- Strengthen Cargo related infrastructure at airports and off airports by facilitating the development of a **hub and spoke model** and a freight grid.
 - The hub and spoke model refers to a distribution method in which a centralized "hub" exists.

Resource Pooling:

- Resources-Pooling through establishing a convergence mechanism i.e. collaboration with other government departments and regulatory bodies.
 - It will provide freight forwarders, airlines and other stakeholders with Incentives and concessions to enhance air transportation of Agri-produce.

• E-KUSHAL:

- An online platform named E-KUSHAL (Krishi Udaan for Sustainable Holistic Agri-Logistics) would also be developed to facilitate information dissemination to all stakeholders regarding the transportation of agricultural produce.
- The ministry has also proposed convergence of E-KUSHAL with the National Agriculture Market (e-NAM).

Expected Benefits:

New Avenues of Growth for Agriculture:

 This scheme will open up new avenues of growth for the agriculture sector and help attain the goal of doubling farmers' income by removing barriers in supply chain, logistics and transportation of farm produce.

Operase Food Wastes:

It will help solve the problem of wastage of agricultural food wastes in the country.

Other Initiatives Related to Farmers:

- Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)
- Green India Mission
- Soil Health Card (SHC)
- Paramparagat Krishi Vikas Yojana (PKVY)
- Rainfed Area Development (RAD)
- Sub-mission on AgroForestry (SMAF)

Mission Organic Value Chain Development for North Eastern Region (MOVCDNER).

Convergence of Agriculture and Aviation

- The convergence between the two sectors (A2A Agriculture to Aviation) is possible because of three primary reasons:
 - Evolutionary possible use of biofuel for aircraft in future
 - Use of drones in the agriculture sector
 - Due to greater integration and value realisation of agricultural products through schemes like Krishi UDAN.

Source: PIB

Green Day-Ahead Market

Why in News

Recently, the **Union Minister of Power & New and Renewable Energy** has launched the new market segment, **Green Day Ahead Market (GDAM)** at the **Indian Energy Exchange**.

India is the only large electricity market in the world to implement a Green Day Ahead
 Market (GDAM) exclusively for renewable energy.

Indian Energy Exchange

 Indian Energy Exchange is the first and largest energy exchange in India providing a nationwide, automated trading platform for physical delivery of electricity, Renewable Energy Certificates and Energy Saving Certificates.

Day-Ahead Market (DAM)

It is a physical electricity trading market for deliveries for any/some/all 15 minute time blocks in 24 hours of the next day starting from midnight.

Term-Ahead Market (TAM)

- The contracts under TAM cover a range for buying/selling electricity for duration up to 11 days.
- It enables participants to purchase electricity for the same day through intra-day contracts, for the next day through day-ahead contingency, on a daily basis for rolling seven days through daily contracts.

Key Points

About:

- It is a marketplace for trading renewable power on a day-ahead basis.
- National Load Despatch Center (NLDC), Power System Operation Corporation Limited (POSOCO) as the nodal agency has set up the requisite technologies and infrastructure for the launch of the GDAM.
- With GDAM, any renewable energy generating company can set up and sell renewable energy on the exchange.

Working of the GDAM:

- It will operate in an integrated way with the conventional day-ahead market.
 - The Exchanges will **offer the market participants to submit bids together** for both conventional and renewable energy through the separate bidding windows.
- This mechanism will allow renewable energy sellers to subsequently bid in the conventional segment should their bids remain uncleared in the green market.
- There will be **separate price discoveries** for both the conventional and renewables.

Expected Benefits:

- Deepen Green Market:
 - It will deepen the green market and will provide competitive price signals, besides
 offering an opportunity to the market participants to trade in green energy, in the most
 transparent, flexible, competitive, and efficient manner.
- Accelerate the Renewable Capacity Addition:
 - It will **provide another option to renewable generators t**o sell power as well as accelerate the renewable capacity addition towards India's vision as a sustainable and efficient energy economy.
 - The distribution utilities would also be **able to sell surplus renewable power generated** in their area.
- Shift from PPA based Contract to Market-Based Models:
 - It will create a domino effect that will lead to a gradual shift from Power Purchase
 Agreements (PPAs) based contracts to market-based models.
 - It will build and deepen the markets to the next level, paving the way for India to meet its ambitious target of 450 GW green capacity by 2030.

Reduction of Curtailment of Green Power:

It would reduce the curtailment of green power, unlock untapped renewable energy
potential, ensure instant payment to Renewable Energy generators i.e. on the day of
delivery itself.

Renewable Energy in India:

- India is the world's third largest consumer of electricity and the world's third largest renewable energy producer with 38% (136 GW out of 373 GW) of total installed energy capacity in 2020 from renewable sources.
- In 2016 under the Paris agreement, India made the commitment of producing 450 GW, or 40% of its total electricity, from non-fossil fuel sources by 2030.
 - The GDAM comes at a time when the country is facing a shortage of coal.
 - The country **needs to decrease its dependence** on imported sources of fossil fuel.

Related Initiatives:

- National Solar Mission (NSM)
- National Biofuels Policy and SATAT
- Small Hydro Power (SHP)
- National Hydrogen Energy Mission (NHEM)
- Production-Linked Incentive (PLI) Scheme
- National Biofuels Policy and SAYAY

Source: PIB

Persons with Disabilities

Why in News

Recently, the **draft norms for ensuring accessibility** for the differently abled at airports has been released by the Ministry of Civil Aviation.

- The draft follows the Rights of Person with Disabilities Rules, 2017, under which the Ministry of Social Justice and Empowerment is required to frame harmonised guidelines for accessibility standards for persons with disabilities.
- The draft details various infrastructural requirements that an airport must provide to facilitate differently abled.

Key Points

- Any restriction or lack of ability to perform an activity in a manner or within the range considered normal for human beings, resulting from impairment is termed as a disability.
- Disability is an important public health problem especially in developing countries like India.
 - In order to sensitise the matter of disability, 3rd December has been marked as the International Day of Persons with Disabilities by the United Nations.

 About 2.2% of India's population lives with some kind of physical or mental disability, as per the National Statistics Office report on disability released last year.

Issues Related to Persons with Disability:

Discrimination:

- Continuous discrimination denies them equal access to education, employment, healthcare and other opportunities.
- The stigma attached to persons with disabilities, compounded by a lack of understanding of their rights, makes it difficult for them to attain their valued "functionings".
 - Women and girls with disabilities are at a higher risk of experiencing sexual and other forms of gender-based violence.

Health:

- A large number of disabilities are preventable, including those arising from medical issues during birth, maternal conditions, malnutrition, as well as accidents and injuries.
- However, there is a lack of awareness, lack of care, and lack of good and accessible medical facilities. Further, there is a lack of accessibility, availability, and utilization of rehabilitation services.

Education:

• Lack of availability of **special schools**, access to schools, trained teachers, and educational materials for the disabled.

• Employment:

• Even though many disabled adults are capable of productive work, **disabled adults have** far lower employment rates than the general population.

Accessibility:

 Physical accessibility in buildings, transportation, access to services etc still remain a major challenge.

Inadequate data and statistics:

 The lack of rigorous and comparable data and statistics further hinders inclusion of persons with disabilities.

Constitutional Provisions:

- Article 41 of the Directive Principles of State Policy (DPSP) states that State shall make
 effective provision for securing right to work, to education and to public assistance in cases
 of unemployment, old age, sickness and disablement, within the limits of its economic
 capacity and development.
- The subject of 'relief of the disabled and unemployable' is specified in the state list of the Seventh schedule of the constitution.

Related Initiatives:

- Unique Disability Identification (UDID) Portal
- Accessible India Campaign
- DeenDayal Disabled Rehabilitation Scheme
- Assistance to Disabled Persons for Purchase/fitting of Aids and Appliances (ADIP)
- National Fellowship for Students with Disabilities

Way Forward

- To address this growing fissure between the accessible and non-accessible world, the international community will have to close some of the gaps and blunt some of the edges by building accessibility across all sectors.
- Such efforts must engage people to promote education and awareness on including persons with disabilities; implementing accessibility laws and regulations; improving physical accessibility and universal design; reducing stigma; and developing the tools for individuals and communities to engage meaningfully with persons with disabilities.
- Ultimately, one of the key ways to achieve this is to begin including and involving persons with disabilities in decision and policy making, for Covid-19 recovery and beyond, which can ensure representation on the matters that govern their lives.

Source: TOI

Converting CO2 to Methane

Why in News

Recently, Indian Scientists have designed a photochemical method (Photocatalyst) to convert Carbon Dioxide (CO_2) to Methane (CH_4).

 A photochemical method is a chemical reaction initiated by the absorption of energy in the form of light.

Key Points

- A polymer has been designed to absorb visible light and catalyse the reaction which reduces CO₂.
 - Most catalysts contain toxic and expensive metal counterparts. Therefore scientists
 designed a metal-free porous organic polymer to overcome this drawback.
- The photochemical method of reducing CO₂ uses solar light as a renewable source of energy.

 There are several ways in which CO₂ can be reduced, including photochemical, electrochemical, photoelectrochemical, photothermal, and so on.

Mechanism:

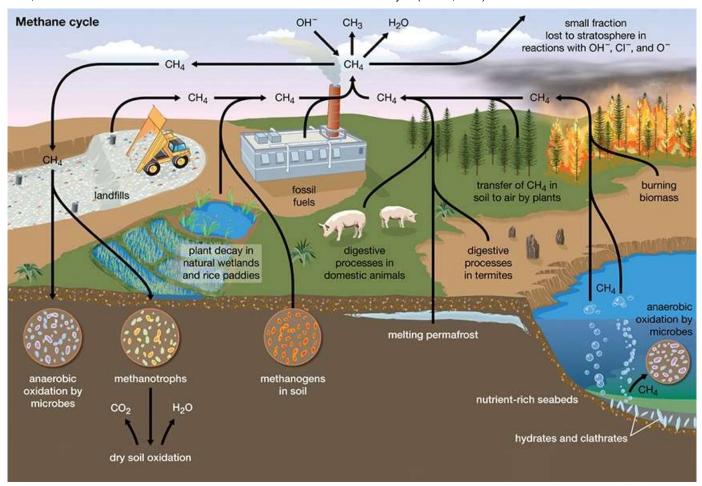
- The catalyst has a chemical called the Conjugated Microporous Polymer (CMP).
- It can uptake CO₂ onto its surface due to its high CO₂ intake capability at room temperature,
 converting it into methane as a value-added product.
- There are some key requirements of a photo-catalyst to convert CO₂ into value-added products, which rely upon:
 - · Light-harvesting property.
 - Charge carrier (electron-hole pair) separation proficiency.
 - Presence of proper electronically aligned conduction band.

Significance:

- Methane can be one of the value-added products with significant uses as the cleanest burning fossil fuel and can directly be used in fuel cells as a hydrogen carrier.
- It is also the main component of natural gas and has the potential to replace coal for electricity generation and furnishing flexible supply to reinforce intermittent renewable generators.

Methane

- Methane is gas that is found in small quantities in Earth's atmosphere.
- It is the simplest hydrocarbon, consisting of one carbon atom and four hydrogen atoms
 (CH₄).
- Methane is a powerful greenhouse gas. It is flammable, and is used as a fuel worldwide.
- Methane is produced by the breakdown or decay of organic material and can be
 introduced into the atmosphere by either natural processes such as the decay of plant
 material in wetlands, the seepage of gas from underground deposits or the digestion of food
 by cattle or human activities such as oil and gas production, rice farming or waste
 management.
 - Methane is called marsh gas because it is found at the surface of marshy places



Major Uses:

- It is an important source of hydrogen and some organic chemicals.
- It reacts with steam at high temperatures to yield carbon monoxide and hydrogen; the latter is used in the manufacture of ammonia for fertilizers and explosives.
- Other valuable chemicals derived from methane include methanol, chloroform, carbon tetrachloride, and nitromethane.
- The incomplete combustion of methane yields carbon black, which is widely used as a reinforcing agent in rubber used for automobile tires.

Environmental Impact of Methane:

- It is 84 times more potent than carbon and doesn't last as long in the atmosphere before it breaks down. This makes it a critical target for reducing global warming more quickly while simultaneously working to reduce other greenhouse gases.
- It is responsible for creating ground-level ozone, a dangerous air pollutant.

Source: PIB

Gray Hanuman Langur Why in News

Recently, A troop of **Gray langurs** (*Semnopithecus entellus*) with their pelage (fur or hair) coloured blue was spotted in an industrial neighbourhood of Ankleshwar in Gujarat.

Key Points

Abobut:

- Also called Hanuman, Langur, named after the Hindu god, Hanuman.
 - Its 16 subspecies' range extends from the Himalayas in the north to peninsular India in the south.
- It is grey washed with buff or silvery shades. Their hands and feet are black and they have long tails for balancing on tree limbs.



- It is found both in forests and near human habitations.
- They inhabit areas between 2,200-4,000 metres above mean sea level in the subtropical,
 tropical moist temperate, alpine, coniferous and broadleaved forests and scrublands.

Distribution:

- It is distributed in a varied habitat including dry savannah and tropical rainforests.
- In the Indian Subcontinent, their distribution is reported in Bhutan, northern India and Nepal.

Threat:

Deforestation, Mining and Pollution.

Protection Status:

IUCN Red List: Least Concern

CITES: Appendix-I

Wildlife Protection Act, 1972 : Schedule-I

Source: DTE

SAMBHAV Awareness Programme: MSMEs

Why in News

Recently, the Ministry of Micro, Small & Medium Enterprises (MSME) has launched an e-National Level Awareness Programme SAMBHAV.

Key Points



About:

- It is a mass outreach programme under the **Ministry of MSME** in which **students** from different colleges/ITIs from all parts of the country will be **encouraged** by 130 field offices of the Ministry **to take up entrepreneurship.**
- During the campaign the college students will be made aware of the various schemes being implemented by the Ministry of MSME through Audio/Video film presentations.

Objective:

• To promote engagement of the youth in promoting entrepreneurship, boost domestic manufacturing with a view to push economic growth.

Need:

- The government is working to increase the contribution of MSME in Gross Domestic Product (GDP) and exports.
 - Enhancing the GDP contribution from present 30% to 50%, and employment generation in MSME sector from 11 crore to 15 crore has been stressed.

Related Initiatives:

- Women Entrepreneurship Platform (WEP)
- Venture Capital Scheme for Agri-Business Development
- Pradhan Mantri Mudra Yojana
- Generation Unlimited in India (YuWaah)
- National Career Service
- Prime Minister's Employment Generation Programme (PMEGP)
- Pradhan Mantri Rojgar ProtsahanYojana (PMRPY)
- Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGA)

Source: PIB

Economic Advisory Council to the Prime Minister

Why in News

Recently, the government has reconstituted the **Economic Advisory Council to the Prime**Minister (EAC-PM) under the leadership of **Dr. Bibek Debroy** for a period of two years after its term came to an end in September 2021.

Key Points

About:

 EAC-PM is a non-constitutional, non-statutory, independent body constituted to give advice on economic and related issues to the Government of India, specifically to the Prime Minister.

- The council serves to highlight key economic issues to the government of India from a neutral viewpoint.
 - It advises the Prime Minister on economic issues like inflation, microfinance, and industrial output.
- For administrative, logistic, planning and budgeting purposes, the NITI Aayog serves as the Nodal Agency for the EAC-PM.

■ Terms of Reference of EAC-PM:

- Analyzing any issue, economic or otherwise, referred to it by the Prime Minister and advising him thereon,
- Addressing issues of macroeconomic importance and presenting views thereon to the Prime Minister.
 - These could be either **suo-motu or on reference** from the Prime Minister or anyone else.
 - It also includes attending to any other task as may be desired by the Prime Minister from time to time.

Periodic Reports:

- Annual Economic Outlook.
- · Review of the Economy.

Source: IE