

Synopsis IAS

The Hindu and Indian Express in 5 Minutes

February 2021

Polity

Voice Vote

- A **voting method** of parliamentary procedure, in which a group vote is taken on **motion by responding orally**.
- **In favour of the motion:** Indicate orally "aye" or "yea".
- **In against of motion:** Indicate orally "no" or "nay".

Breach of Privilege

- **Parliamentary privilege** refers to the **right and immunity enjoyed by legislatures**.
- Legislators are granted **protection against civil/ criminal liability** for **actions/ statements made during their legislative duties**.
- **Article 105: Privileges of Member of Parliament.**
- **Article 194: Privileges of Member of Legislative assembly.**

Adultery

- **Sexual intercourse** between a **married man and someone other than his wife** or between a **married woman and someone other than her husband**.
- **Adultery is not accepted on the moral grounds under:**
 - Central and State **Civil services act**.

- **Army Act.**
- This could cause '**Unbecoming the member of Service**'.

Official Languages

- Bilingual policy is applicable in Central government offices.
- 3-language policy not applicable.
- As per Official Language Act, 1963, and the Official Language Rules, 1976

Hard Sovereignty

- It means no one can interfere into the internal matter of any country.
- It could also be taken as '**Hyper Nationalism**.'
- Pushing the limit of this concept could be harmful for any country's long term external relations.

Governance

One nation, One Standard Mission

- It was launched in **2019**, under **Ministry of Consumer Affairs, Food & Public Distribution**.
- It was to ensure **quality products** in the country.
- The standardisation of products will be **recognized by BIS** (Bureau of Indian standards).

One District One Product Scheme

- It is to support the **Horticulture Production items**, providing better nutrition to school children.
- U.P. Government (1st to start) - **Sunhari Kand** (Orange Fleshed Sweet Potatoes).

Amendments in RTI Act

- The Centre has the powers to **decide the salaries and service** conditions of CIC and SCIC.
- **Term of the CIC** will be decided by the **Central Government**.
- **Supreme Court** has criticized these amendments in **Jairam Ramesh** case.

U.P. Prohibition of Unlawful Conversion of Religion Bill, 2021

- A **marriage** will be declared “**null and void**” if the **conversion is solely for that purpose**.
- Those wishing to **change their religion** after marriage need to **apply to the DM**.

Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules 2021

- A detailed **guideline** for digital content on **digital media** and **OTT** platforms.
- The **OTT content can be blocked** without informing the publishing platform.
 - Such orders can be released “without giving an opportunity of hearing”.
- It is nicknamed as “**Soft Touch Oversight**”.

No postal ballots for NRIs this time: ECI

- **Postal ballots**: Voting in an election where **ballot papers are distributed to electors** by post.
- **Unlike** voting at a **polling station** or **EVM**.

Major Port Authorities Bill, 2020

- It replaces the **Major Port Trusts Act, 1963**.
- The Bill aims to make the **ports world class**.
- It gives **the port authorities power to make their own decisions**.
- The Bill creates a **Board of Major Port Authority, for each major port**.

Unlawful Activities (Prevention) Act, 1967

- To prevent the unlawful activities associations in India.
- To protect the **integrity and sovereignty of India**.
- **Issues**: to define the **aspect of putting reasonable restrictions**.
 - **National Integration Council** appointed a Committee to look into this.
- Under UAPA, Indian and foreigners can be charged, even on foreign land.
- It gives **absolute power to the central government**.
 - **The Centre can decide activity as unlawful**, including death Penalty.

Information Technology Act, 2000

- **Section 69A**:
 - Government’s power to issue directions for blocking access to any information, which is a concern for the national security or public order.

- **Section 69A (3):** Envisages Imprisonment for up to 7 years, for violating Section 69A.
- **Blocking Rules:**
 - All requests & complaints would remain strictly confidential.

National commission Schedule Caste

- New Chairman: Vijay Sampla

National Commission for ST

- Newly appointed chairman: **Harsh Chauhan.**

Shashi Tharoor Committee on 5G

- **Committee Report:**
 - If time bound action is not taken and Spectrum auctions are not held within 6 months, India would miss out on 5G opportunities.
- Shashi Tharoor is the **IT Committee Chief** under parliamentary Committees.

Pradhan Mantri Urja Ganga Project (PMUGP, 2016)

- It is to provide **piped cooking gas to the households.**
- Pipeline Extension: Dobhi (Bihar) to Durgapur (Bengal) and from U.P. to Odisha.
- **News Context:** GAIL included West Bengal for gas pipeline project.

Kapila

- Kalam Program for **Intellectual Property Literacy** and Awareness Campaign.
- It is launched by **Education Ministry.**

Pradhan Mantri Matru Vandana Yojana (PMMVY), 2017

- It is a Maternity Benefit Programme, under Women and Child Ministry.
- **Beneficiaries:**
 - Pregnant women receive ₹5,000 on the **birth of their first child.**
 - Government servants are excluded.
- Direct cash transfer under **Janani Suraksha Yojna is also applicable** for the first child.

Stars Project (Strengthening Teaching-Learning & Results for States)

- It is for **education delivery at local levels, Teachers' transformation** Etc.
- It is funded by **Education Ministry, Department of Economic Affairs (DEA), and World Bank.**
- **Implementation:** Himachal, M.P., Kerala, Maharashtra, Odisha, Rajasthan.

Parakh (Under Stars Project)

- Performance Assessment, Review, and Analysis of Knowledge for Holistic Development.
- It comes under National Education Policy, 2020

Settling of sexual assault case by parents

- The father of a sexual assault victim cannot be permitted to settle the dispute with the accused in the case. - **Delhi High Court.**

Census

- It is the procedure of **systematically enumerating**, and acquiring and recording

information about the members of a given population.

- Done by **Office of the Registrar General and Census Commissioner.**
 - Under **Ministry of Home Affairs.**

Background

- It Can be traced in **Rig-Veda, Arthashastra by Kautilya, Ain-e-Akbari.**
- It started under **Lord Mayo in 1872.**
- The **first regular census** in India was held in **1881.**
- Now it is conducted **every 10 years.**

Vigyan Jyoti Programme

- It is an **initiative to encourage girls to take interest in science and build career.**
- It is **launched by the Department of Science & Technology (DST) under STEM (Science, technology, Engineering, Mathematics) project.**

Economy

Fiscal conservatism

- It is a political and economic philosophy regarding fiscal policy and fiscal responsibility.
- It advocates **low taxes, reduced government spending and minimal government debt.**
- **Characteristics:** Deregulation, free trade, privatization and tax cuts.
- It follows the **same philosophical outlook of classical liberalism.**

Classical liberalism

- It is a political ideology that advocates **civil liberties** under the **rule of law** with an emphasis on **economic freedom.**
- It is closely **related to economic liberalism.**
- It developed in the early 19th century.
- Background: Urbanization and Industrial Revolution.
- **Notable liberal individuals:** John Locke, Thomas Robert Malthus Jean-Baptiste Say, and David Ricardo.
- It is based on **classical economics.**
 - Ideas taken from **The Wealth of Nations** by Adam Smith.
 - Believes in **natural law, progress and utilitarianism.**

New Public Sector Enterprise Policy

- **Strategic sectors:** Atomic Energy, Space, Defence, Transport and Telecom, Power, Petroleum, Coal, other minerals, Banking, Insurance and Financial Services will be classified as **strategic sectors.**
- The remaining companies in strategic sectors will be considered for privatization/merger/closure.
- The remaining companies in non-strategic sectors will be considered for privatization, where feasible or for closure.

Multimodal transport or combined transport

- It is the transportation of goods under a **single contract** but performed with **at least two different modes of transport.** Eg. rail, sea, waterways, road etc.

India 'Out of recession'

- India's economy to grow in **3rd quarter** of 2020-21 with **0.4%** rise in GDP.
- Before this, the **GDP growth was negative** due to Pandemic; as:
 - **-23.92%** in June 2020 (1st quarter).
 - **-7.54%** in September 2020 (2nd quarter).
- As per data from NSO.

PLI (Production Linked Incentives) Plan for Telecom

- Aim: to make India a **global hub for manufacturing telecom equipment**.
- Eg. Core transmission equipment, 4G/5G Next Generation Radio Access Network, wireless equipment etc.

Bad Bank

- It is an **asset reconstruction company** that buys bad loans (NPAs) from the commercial banks at a discount and tries to recover the money from the defaulter.

Government Security (G- Secs)

- It is a **tradeable instrument issued by the central government** or state government.
- RBI has given **small investors direct access to G-sec**, to retail investors.

Currency Swap Arrangement

- It is an arrangement between 2 countries to involve **trading in their own local currencies**.

- Both countries pay for import and export trade **at the pre-determined rates of exchange**, without bringing in third country currency like the US Dollar.
- **News Context:** RBI has agreed to \$400 million currency swap facility with Sri Lanka till November 2022.

International Relations

East Container Terminal (ECT), Sri Lanka

- ECT was to be built under **India & Japan partnership** project in 2019.
- **Now, China has overtaken the project.**
- As **China has 85% stake in Colombo International Container Terminal**.

World Sustainable Development Summit (WSDS)

- It is the **Annual Flagship Event** of The Energy and Resources Institute (TERI).
- **TERI was established in 1974**, as an **information center on energy issues**.
- **WSDS: 2021, 20th Edition** at New Delhi.
- The Summit intends to discuss and act, **the Global South to the 26th UN Climate Change Conference of the Parties in Glasgow, 2020**.

Working Group on Arbitrary Detention (WGAD)

- It was established in **1991** under **UN Human Rights Council**.
- It is a body of independent **human rights experts**.

- **Arbitrary arrest and detention:** The imprisonment of an individual, by a State, **without respect for due process.**

Art and Culture

Back Channel Diplomacy

- Also known as **Track II diplomacy.**
- It is an unofficial channel of communication between states or other political entities.

Ugadi

- It is **Telugu New year**, falls on April 13.

Shahtoot Dam (Afghanistan)

- New Development Partnership between India and Afghanistan.
- The dam is at **Maidan River, tributary of Kabul.**
- Before this: Salma Dam (Friendship Dam), 2016.

Channapatna Toys

- They are a form of **wooden toys**, manufactured in **Karnataka.**
- It is protected as **GI Tag** under WTO.
- Channapatna is known as **Gombegala Ooru (toy-town)** of Karnataka.

International Criminal Court (ICC)

- It is located at **Hague (Netherlands).**
- It was established in 2002, under **Rome statue treaty.**
- **Function:**
 - It takes cases related to Genocides, Crimes against Humanity, War Crimes.
- **Relation with UN:** Independent body, but may refer a case from UN.
- **News Context:** ICC convicts former Uganda commander (Dominic Ongwen) for WAR Crimes.

Myanmar's Chin Community

- **Chin** and **Mizo** community of India, both belong to the **Zo Ethnic Community.**
- Chin community is migrating to Mizoram because of Military crackdown in Myanmar.

Inscription on Vijayanagar king's Death Discovered

- **Inscription:** It is either written on or engraved into a surface.
- **Epigraphy:** Study of inscriptions.

Okonjo Iweala, Nigeria

- She will be the **1st female and 1st African head of WTO.**
- Appointed as **Director-General** of the World Trade Organization.

Attukal Pongala

- It is a **religious festival** of **Kerala.**

Puri Heritage Corridor Project for Jagannath Temple

- **This would include:**
 - Green buffer zone adjacent to **Meghanad Prachir** (temple boundary).
 - **Antar Parikrama** (inner circuitry walk).
 - **Pradikshyan** (circumambulation).

- **3 objectives** of the Project:
 - Security of the temple, safety of devotees, religious atmosphere.

International Mother Language Day

- Observed on **21 February**.
- Announced by **UNESCO in 1999**, initiated by **Bangladesh**.
- **Aim:** To promote awareness of linguistic and cultural diversity and to promote multilingualism.
- Theme for 2021: Fostering multilingualism for inclusion in education and society.

UNESCO List of Languages in Danger

- **UNESCO Atlas** declares languages as **endangered, vulnerable or extinct**.

Language List:

- **Vulnerable:** Most children speak the language but only in specific domain.
- **Definitely Endangered:** Children no longer learn the language as mother tongue.
- **Extinct:** No speakers left.
- **Severely Endangered:** spoken by grandparents and parents may understand it but do not communicate in it to children or amongst themselves.
- **Critically Endangered:** Only the elders speak it, but partially and infrequently.

News:

- Most of the languages of **North East** and **Andaman Islands** are **in danger**.
- UN has declared **2022-32**, as ‘**The Decade of Indigenous Languages**’.

Maharaja Suheldev

- He was **Shravasti King (north-eastern U.P.)**
- He defeated and killed the **Ghaznavi general Ghazi Saiyyad Salar Masud** in 11th century.

Mirat-i-Masudi

- The 17th century Persian language text.
- Written by Sufi saint **Abdur Rahman Chishti**.

Kinnal Craft

- It is a **traditional craft done on wood**, majorly in **Karnataka**.
- It was awarded the **Geographical Indication tag in 2012**.

Monpa Pandmade Paper (Mon Shugu)

- It is **heritage medical art** of **Arunachal Pradesh**, older than 1000 years.
- It is made from **Shugu Sheng** tree, which has medical values.

Society

China's elimination of absolute poverty

- China's poverty line is \$2.30 in terms of purchasing power parity (PPP) per person a day.

International poverty line by World Bank

- It is **\$1.90 a day**.
- The line is **based on the value of goods needed to sustain one adult**.

- It **does not include** access to sanitation, water, electricity and their effects on the **quality of life**.
- In 2015, the threshold was updated to \$1.90 per pay.

Homosexuality

- SC had decriminalised IPC Section 377.
- Same sex marriage is against the Indian ethos and social values. – Government.

Indradhanush 3.0

- It is to **cover children and pregnant women who missed routine immunisation** programme during the COVID-19 pandemic.
- **Mission Indradhanush:**
 - It was launched by Union **Health Ministry** in **2014**.
 - **Aim: Vaccination against 8 diseases** as, Diphtheria, Whooping Cough, Tetanus, Polio, Measles, T.B., Hepatitis B.

FSSAI Restricts Trans Fatty Acids in Food

- FSSAI says the amount of **industrial Trans Fatty Acid (TFA)** in food products cannot be more than 2% from 2022.
- **Industrial Trans Fatty Acid:**
 - These are created in industrial process, in which hydrogen is added to liquid vegetable oils.
 - It increases food items life.

Special Marriage Act (SMA), 1954

- It allows marriages without any religious customs or rituals.
- **Registration:** 30 days before marriage under SMA.

Meri Saheli Initiative

- **Pilot Project** by **Railway Protection Force (RPF)** across **South Eastern Railway**.
- For **security of women passengers** in trains.

Environment and Geography

Mandarin Duck

- IUCN Status: **Least Concern**.
- World's Most beautiful Duck. This is a Siberian migratory bird.

The Tree City Initiative

- Initiative by the **Arbor Day Foundation**.
- Started initially in USA in 1976.
- Aim: To provide framework for communities to manage and expand public trees.

Arbor Day Foundation

- It is an **international NGO**.
- It is the **largest non-profit organization** for tree planting.

Four core standards of sound urban forestry management:

- Maintaining a tree board or department.
- Having a community tree ordinance.
- Spending at least \$2 per capita on urban forestry.
- Celebrating Arbor Day (Tree day)

Global 'Tree City' status

- Given by the Arbor Day Foundation and FAO.
- Hyderabad from India among others.

Black Footed Ferret

- USA has successfully **cloned an endangered black-footed ferret** using **frozen cells**.
- The **1st endangered American animal** to be cloned.
- The species is North America's only ferret.

Landslip and Landslide

- **Landslip:** Sliding of a mass of land down a slope or cliff.
- **Landslide:** A natural disaster that involves the breakup and downhill flow of rock, mud, water and anything caught in the path.

Caracal, The Wildcat

- **IUCN Status:** Least Concern in major parts of the world.
- IUCN Status in India: Critically Endangered (Found in Gujarat and Rajasthan).
- It is known as '**Siya Ghosh**' in India.
- It is majorly found in Arica, Middle east, Central Asia.

Few Important Definitions

- **Hibernation:** A state of **dormancy** when **warm-blooded animals go into hills or holes; during winter, preserving energy** at a time when food sources are scarce.
- **Brumation:** **Similar to hibernation**, but practised only by **cold-blooded animals** like reptiles.
- **Estivation:** When an animal goes into a dormant state **during a hot period**, to wait out water scarcity or harsh heat.

Loss of Mars Atmosphere

- It lost its atmosphere due to **loss in Magnetic field**.
- **Magnetic Field:** It is a **vector field** that describes the magnetic influence on moving electric charges, electric currents, and magnetic materials.

WASH

- It stands for "water, sanitation and hygiene".
- It is an initiative of WHO. India adopted it in 2019.
- It is a key focus of the first two targets of Sustainable Development Goal 6.

Madras Hedgehog (Bare Bellied Hedgehog)

- It is a **mammal** and a **kind of Rat**.
- **IUCN status:** Least Concern.

Snow Leopard (Ounce)

- Protection status:
 - **IUCN Status:** Vulnerable.
 - Schedule I of the Indian Wildlife (Protection) Act 1972.
- **Habitat:** **Alpine and Subalpine zones** at higher elevations of Himalayas, central Asia.

Rise of Mammals

- **Purgatorius:** Oldest genus in a group of the earliest known primates called **Plesiadapiforms**.
- These ancient mammals were small-bodied and ate insects and fruits.
- **Fossils** are found in **Hell Creek area** of USA.

The Recovery Programme for Critically endangered Species (ESRP)

- In 2015, the MoEFCC tasked Wildlife Institute of India (WII) to prepare Endangered Species Recovery Plans (ESRP) for identified nationally and globally important species.
 - Eg. Great Indian Bustard, Manipuri Deer- Sangai, Gangetic Dolphin and Dugong.
- This plan was made for 4 species only but now it includes 22 species.

Bathymetry

- It is the study of underwater depth of ocean floors or lake floors.
- INCOIS and NRSC plans for aerial mapping of the Andaman and Lakshadweep.

Indian National Centre for Ocean Information Services (INCOIS), Hyderabad

- An autonomous organization under the Ministry of Earth Science.
- INCOIS is mandated to provide the best possible ocean information.

National Remote Sensing Centre (NRSC), Hyderabad

- A centre of ISRO.

Dickinsonia

- Earliest known living animal (550 million years old)
- Fossils found in the Bhimbetka Rock Shelters (M.P.)
- Bhimbetka: UNESCO world heritage site.

- Prehisotoric Paleolithic & Mesolithic period.

Bairabi-Sairang Railway Project

- Aizawl will be linked to India's railway grid.
- Mizoram will be the 4th north-eastern State to get railway connectivity.
 - After Dispur (Assam), Agartala (Tripura) and Itanagar (Arunachal).
- Done by Northeast Frontier Railway (NEFR).

Brookesia Nana

- It is a recently discovered chameleon (lizard) from Madagascar.
- It is world's smallest adult reptile.

Glacial Burst in Uttarakhand

- A part of Nanda Devi glacier broke off at Joshimath, in Chamoli.
- Glacial lake: A body of water with origins from glacier activity.
 - They are formed when a glacier erodes the land, melts, filling the depression created by the glacier.

Tapovan hydro power project

- It was constructed on Dhauli Ganga River, Chamoli.
- Dhauli Ganga Originates from Vasudhara Tal. It merges with Alakhnanda at Vishnuprayag.
- The glacial Burst damaged Rishiganga Hydro Power project & Tapovan Hydro Project.

Sessa Orchid Sanctuary

- Only Orchid sanctuary in India, in Arunachal Pradesh.
- Diversity of Mushrooms.

New Marigold variety

- Developed by Indian Institute of Horticultural Research (IIHR), Bangalore.
- It has carotene content of 2.8%, which is the highest from a plant source.

Venus flytrap (Dionaea muscipula)

- It is a carnivorous plant native to Subtropical Wetlands.
- It is capable of generating small magnetic fields.
- These plants send electrical signals to trigger the closure of their traps, to catch an insect.
- IUCN Status: Vulnerable.

Orobanche (Broomrapes)

- It is a hidden Root Parasitic weed in mustard.
- It causes severe yield loss to the extent of up to 50%.
- No absolute control measure is developed yet.

World Wetlands Day, Feb 2

- It is the anniversary of signing the Convention on Wetlands of International Importance (Ramsar Convention), Iran in 1972.
- Wetlands: Wherever water bodies meet the land.
- Now there are 42 Ramsar sites in India.

Harem

- It is an animal group consisting of one or two males, a number of females, and their offspring.
- The dominant male drives off other males and maintains the unity of the group.

Ageing dams

- India is ranked 3rd in the world in terms of building large dams.
- Over 5,200 large dams built so far.
- About 1,100 large dams have already reached 50 years of age and some are older than 120 years.
- 80% of the nation's large dams face the prospect of becoming obsolete.
- The condition of thousands of medium and minor dams is even more precarious as their shelf life is even lower than that of large dams.

Mahabahu Brahmaputra Project, Assam

- It is a package of multi-modal water connectivity projects.
- It includes approx. 20 km bridge. This will be India's longest across a river.
- Dhola-Sadiya bridge is currently the longest river bridge in India. (approx. 10 km).

Denmark to Create World's First Energy Island

- It will be located in the North Sea, linked to 100s of offshore wind turbines.
- It will supply power to Households and Green Hydrogen.
- Use: Shipping, Aviation, & Heavy Transport.

Science and Technology

- It was established in **1988** to develop **Supercomputers**.

Vaccines Against COVID Variants

- The **Corona virus** is changing its **variant**.
- The **available vaccines** not working **due to change in Mutation**.
- **Mutation:** An alteration in the **genome of an organism, Virus or DNA**.

Why in news:

- The Railway Ministry is promoting it to **educate** its officials on **Internet ethics, cyber hygiene**.
- This is a part of its **National Cyber Security Strategy**.

Zolgensma Gene Therapy

- It is a **one-time injection** that replaces the defective gene with normal gene and **rectifies disorder**.
- US approved this therapy for **children aged less than two years**.

Chemicals in Plastic toys

- **Major harmful chemicals:** **Butyrate TXIB** and **citrate ATBC**, used as **Phthalate** substitutes.
- **Phthalates:** A family of chemical compounds used to make polyvinyl chloride (PVC).

Genetic Lego

- **Genetic elements** can be **shuffled to form new genes** like Lego Blocks.
- **Jumping Genes:** A DNA sequence that can change its position within a genome.
- **Exon Shuffling:** Jumping Genes were added to the genetic mix during evolution to new Genes.

Physarum Polycephalum plant

- This is a **single cell plant**.
- It is an **acellular Slime Mould** or myxomycete.
- It **stores and retrieves memories** even though it has **no brain**.
- **Slime Mould:** An eukaryotic fungus that can live freely as single cells.

Carbon Watch App

- It is a **mobile application** to assess the **carbon footprint of an individual**.
- **Carbon Footprint:**
- It is the **amount of greenhouse gases released** into the atmosphere by a particular human activity.

Haemorrhagic Septicemia

- It is a **disease** caused by a **Bacteria** called 'Pasteurella Multocida'.
- It mainly affects **cattle and water buffalo**.
- Contagious disease.
- It is an important cause of livestock mortality in **tropical regions** of Asia, Africa, Middle East.
- **News Context:** 6 elephants died in **Karlapat Wildlife Sanctuary in Kalahandi, Odisha**.

The Centre for Development of Advanced Computing (C-DAC)

- It is a research organization of the **Ministry of Electronics and Information Technology**.

Nano-Phonetics

- It is the science of **interaction of light and matter at the nanoscale** to enable onchip devices.
- Helps in manipulating the crystals with precision and control.
- This technique can go beyond to all-optical-technology such as, wearable devices etc.

Nova-1

- RNA-binding protein Nova-1 is a protein that in humans is encoded by the NOVA1 gene.

Gene Regulation

- It is the process by which the cell determines which genes will be active and which genes will not be active.

Spinal Muscular Atrophy (MSA) Disease

- **SMA** is a disease caused by **loss of nerve cells**.
- **Two copies of genes: One from the mother** and the other from **the father**.
- A child **develops this disorder only if both the copies are faulty**.
- Treated by **Wonder drug: Zolgensma** drug.

China's Tianwen-1 probe (Huoxing 1)

- It is **China's first Mars probe**.
- **China** will become the **third country** to achieve a **Mars landing** after the **USSR and the US**.
- Launched on a **Long March 5** rocket.

Einsteinium

- It was created in the **debris of the 1st Hydrogen Bomb**.
- The characterization of new properties was discovered in 1952.
- It is **highly Radioactive**.

Square Kilometre Array (SKA)

- It is an intergovernmental **radio telescope project**.
- To be built in **Australia and Africa**.
- It will be the **world's largest radio telescope**.
- Square Kilometre Array Observatory (SKAO) Council:
 - Head Quarter- U.K.
 - India is a member

Radio Telescope

- It can **detect invisible gas**, can reveal areas of space obscured by **cosmic dust**.
- First radio signals detected by physicist **Karl Jansky (1930s)**.

Stardust 1.0 rocket

- It has become the **first commercial space launch** powered by **biofuel**.
- It is manufactured by **BluShift**, an aerospace company.
- It is launched from **Loring Commerce Centre, USA**.
- **Biofuels:** Renewable energy source, made from organic matter or waste.

Smart walls for India

- It is a **collection of technologies that work together** to prevent illegal entry and activities, smuggling etc.
- It uses drones, scanners, and sensors to create a technological barrier too high, too wide to cross it.

Lithium Deposits

- **About Lithium:**
 - Soft, Silvery-white metal, lightest metal & lightest solid element.
 - Highly **reactive and flammable**, must be stored in mineral oil.
 - **News Context:** Found at Mandya, Karnataka.

Ethanol, An Alternate Fuel

- This policy envisages an indicative target of **Blending 20% Ethanol in petrol by 2030.**
- It comes under **National Policy on Biofuels and Ethanol Blended Petrol (EBP) Programme.**
- **Ethanol:**
 - Produced from sugarcane (molasses by fermentation), maize, wheat (high starch content).
 - As **ethanol molecule contains oxygen**, it allows the engine to combust the fuel more completely, resulting in **fewer emissions.**

Security

Uthuru Thila Falhu (UTF)

- An **agreement between India and Maldives.**
- To develop a **Maldives National Defence Force Coast Guard Harbour at UTF.**

Howitzer

- It is generally a long ranged weapon that stands between an artillery gun.
- **Shells:** fired at flatter trajectories.
- **Mortar:** fired at higher angles.

Arjun MK-1A Tank

- It is an upgraded version of **Arjun MBT Mk-1.**
- **Objective:** to create a state-of-the-art tank with superior fire power, high mobility, and excellent protection.
- Arjun MK-1A Tank is developed by **DRDO.**

Helina

- Developed by **DRDO.**
- It is a **third generation** of 'Fire & Forget' **Helicopter Version of Nag Anti-Tank Guided Missile.**
- Helina's Air Force variant is named '**Dhurvastra**'.

Hatf-VII or Babur cruise missile, Pakistan

- It is a **surface-to-surface Short range missile.**
- **Subsonic cruise missile** that can be launched from land or underwater platforms.
- Range: up to 490 km away.

K9 Vajra (K9 Thunder)

- It is a **South Korean** self-propelled 155 mm **howitzer**.
- **It is Shoot-and-scoot capability:** It can fire-and-move, i.e. After firing at a target, it can immediately move away from the location.
- Made by L&T in India.

Ka-226T Utility Helicopter

- It replaces **Cheetah and Chetak fleet** of the Army and Air Force.
- The helicopter is manufactured by **India Russia Helicopters Limited (IRHL)**, a joint venture between HAL and Russian Helicopters.

Indian Ocean Region (IOR) Defence Ministers' Conclave

- India will host this at a conclave during the **"Aero India" in Bengaluru**.

Miscellaneous

Fit to Fly Certificate

- It certifies that the traveller has tested negative recently for COVID-19.
- This is required for entry to some US states and foreign countries.

KOO

- Indian Alternative to Twitter.

Prabuddha Bharata

- 125th anniversary of 'Prabuddha Bharata',
 - A monthly journal of the **Ramakrishna Order** started by **Swami Vivekananda**.

Corruption Perceptions Index

- By Transparency International.

Kritgya

- A **national level hackathon** organized by **ICAR**.
- **Aim:** To promote innovation in agriculture and allied sectors in the country.

C-Vigil App

- Used by Central election Commission.

Chah Bagichar Dhan Puraskar Mela Scheme

- **Held in Guwahati, Assam (since 2017-18)**.
- **This scheme is to open bank accounts in tea garden areas.**

'Switch Delhi' campaign

- To promote the use of **electric vehicles** in Delhi.

Parivar Pehchan Patra Scheme (PPP)

- It was Launched by **Haryana government** in 2019.
- **Aim:** 'Paperless' & 'Faceless' delivery of benefits.