DUGDH SANKALAN SATHI APP

Recently, the Union Minister of Heavy Industries unveiled the ground-breaking "Dugdh Sanakalan Sathi Mobile App" at Mussorie, Uttarakhand.

About Dugdh Sankalan Sathi App:

- This is designed and developed by Rajasthan Electronics & Instruments Limited (REIL), a "Mini Ratna" Central Public Sector Enterprise under the Ministry of Heavy Industries.
- It aims to improve the quality of milk, foster transparency among stakeholders, and streamline operations at the grassroots village level, including Milk Cooperative Societies.
- This will inform all services to milk producers in English, Hindi, Punjabi, Telugu and other languages

Key features and benefits of the app include:

- Increased **transparency** among stakeholders
- Online monitoring of daily milk poured at Milk Cooperative Societies
- **Real-time milk price updates** from the cloud server, ensuring transparency and eliminating human errors
- **Direct beneficiary transfers** of milk payments and government subsidies to the milk producers' bank accounts through the app
- Push notifications for milk collection to the milk producers' app

FOOD AND AGRICULTURE ORGANIZATION (FAO)

According to the Food Outlook report of the Food and Agriculture Organization, food imports by vulnerable countries are expected to decline in 2023.

About the Food and Agriculture Organization (FAO):

- It is a **specialized agency of the United Nations** that leads international efforts to defeat hunger and improve nutrition and food security.

- Its goal is to achieve food security for all and make sure that people have regular access to enough high-quality food to lead active, healthy lives.
- **Head Quarter:** Rome (Italy).
- **Member countries:** With 195 members - 194 countries and the European Union, FAO works in over 130 countries worldwide.
- Its sister bodies are the **World Food Programme (WFP)** and the **International Fund for Agricultural Development (IFAD).**
- **Reports published by the FAO:** The State of the World's Forests (SOFO), The State of World Fisheries and Aquaculture (SOFIA), The State of Agricultural Commodity Markets (SOCO), The State of Food Security and Nutrition in the World (SOFI)

  Initiatives are taken by the FAO
- The **Codex Alimentarius Commission** is in charge of overseeing the implementation of the Joint FAO/WHO Food Standards Programme.
- Agricultural Heritage Systems of Global **Importance (GIAHS).**
- Monitors the status of **Desert Locusts** all over the world.
- The **International Treaty on Plant Genetic Resources** for Food and Agriculture was adopted by the Thirty-First Session of the Conference of the FAO in 2001.

WHAT IS ARMADO?

Mahindra Group chairman recently announced that Mahindra Defence Systems (MDS), has started deliveries of 'Armado,' an Armoured Light Specialist Vehicle (ALSV) built for the Indian armed forces.

About Armado:
- It is **India's first Armoured Light Specialist Vehicle (ALSV).**
- It is a **fully indigenous** vehicle designed and **built by the Mahindra Defence Systems** (MDS) **for the Indian armed forces**.
- **Features**:
  o It can **accommodate a driver and 5 passengers**.

- o **Above the standard 1,000 kg load capacity, the ASLV can carry another 400 kg**.

- o It gets **ballistic protection up to the B7 level and STANAG level-2**. This means that its armour offers **protection against armour-piercing rifles.**

- o Also, the ASLV **gets protection on all sides** (front, side and rear) **from ballistics and explosives.**

- o Powering the 4-wheeler is a **3.2-litre multi-fuel diesel engine** that **generates 216 hp of maximum power.**

- o Armado takes just **12 seconds to accelerate from 0 to 160 kmph**, and runs at a **speed of more than 120 kmph.**

- o It also **gets a self-cleaning-type exhaust scavenging and air filtration system** for extreme dusty climate, like deserts.

- o A modular vehicle, it can be **used in counter-terrorism operations, raids in open and desert terrains, and reconnaissance missions.**

WHAT IS THE INDIA, U.S. INITIATIVE ON FUTURE TECH?

Why in News?

- Recently, India and the United States unveiled a roadmap for enhanced collaboration in high-technology areas.

- This was part of the **Initiative on Critical and Emerging Technology** (iCET) jointly announced by President **Joe Biden** and Prime Minister **Narendra Modi** last year.

What is Initiative on Critical and Emerging Technology (iCET)?

- The Initiative on Critical and Emerging Technologies is a **framework agreed upon by India and the U.S. for cooperation on critical and emerging technologies**.

- These emerging technologies include **artificial intelligence**, **quantum computing**, **semiconductors** and **wireless telecommunication**.

- Prime Minister Modi and President Biden first announced the framework on the side lines of the Quad meeting in Tokyo in May 2022.

- It was launched in January this year to strengthen their strategic partnership and drive technology and defence cooperation.

  Focus Areas of iCET:

- Primarily, the **iCET seeks to position New Delhi and Washington D.C. as "trusted technology partners"** to build supply chains and support the co-production and co-development of items.

- **Key areas include –**

  o Setting up a research agency partnership to drive collaboration in areas like Artificial Intelligence;

  o Developing a new defence industrial cooperation roadmap to accelerate technological cooperation for joint development and production;

  o Developing common standards in **Artificial Intelligence**;

  o Developing a roadmap to accelerate defence technological cooperation and 'innovation bridge' to connect **defence startups**;

  o Supporting the development of a **semiconductor** ecosystem;

  o Strengthening cooperation on **humanspaceflight**;

  o Advancing cooperation on development in **5G** and **6G**; and

  o Adopting **OpenRAN network** technology in India.

WHAT IS ARTEMIS ACCORDS?

A top NASA official recently said that India needs to be a part of the Artemis team, which brings like-minded countries together on civil space exploration.

About Artemis Accords:

- The Artemis Accords are a **non-binding set of principles designed to guide civil space exploration and use in the 21st century**.

- These principles will help to ensure the **maintenance of a safe and predictable outer space environment.**

- **NASA, in coordination with the U.S. Department of State**, **established the Artemis Accords in 2020, t**ogether with seven other founding member nations.

- **Artemis Accords signatories** as of May 30, 2023: **Australia, Bahrain, Brazil**, Canada, Colombia, Czech Republic, **France**, **Israel**, **Italy**, **Japan**, Luxembourg, **Mexico**, New Zealand, Nigeria, Poland, the Republic of Korea, Romania, Rwanda, **Saudi Arabia**, **Singapore**, **Spain**, Ukraine, the **United Arab Emirates**, the **United Kingdom**, and the **United States**.

Principles:

o **Peaceful Purposes:** Consistent with the Outer Space Treaty, the Artemis Accords affirm that **cooperative activities should be exclusively for peaceful purposes** and in accordance with international law.

o **Transparency**: Artemis Accords signatories are **committed to the broad dissemination of information regarding their respective national space policies** and space exploration plans in accordance with their national rules and regulations.

o **Interoperability**: Interoperability enhances the potential for space exploration that is safe and **robust among cooperating nations.**

o **Emergency Assistance:** Accords signatories **commit to taking all reasonable efforts to render necessary assistance to personnel in outer space who are in distress** and acknowledge their obligations under the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space.

o **Release of Scientific Data**: **Sharing scientific data with the global community** in a timely and transparent manner.

o **Protecting Heritage**: Accords signatories intend to **preserve historically significant human or robotics landing site**s, artifacts, spacecraft etc.

o **Orbital Debris and Spacecraft Disposal**: Planning to **mitigate for orbital debris, as well as disposing safely of spacecraft**s, is critical to maintaining a safe environment in space and operating in space sustainably.

NASA's Artemis Program:

- With the Artemis programme, **NASA aims to land humans on the moon by 2024**, **and it also plans to land the first woman and first person of colour on the moon.**
- With this mission, **NASA aims to contribute to scientific discovery and economic benefits** and inspire a new generation of explorers.

PM MODI CALLS FOR G-20 MEMBERSHIP FOR AFRICAN UNION

Why in news?

- Prime Minister Narendra Modi has written to the leaders of the G-20 nations proposing that the African Union be given full membership of the grouping at its upcoming summit in India.
- India is hosting the G-20 summit in Delhi in September in its capacity as the current chair of the grouping.

African Union

- **About**
  - The AU is an intergovernmental organization consisting of the 55 member states that make up the countries of the African Continent.
  - Basically, it is a continental union with a wide range of goals aimed at strengthening its member states both individually and collectively.
  - It was officially launched in 2002 as a successor to the Organisation of African Unity (OAU, 1963-1999).
  - The **AU's headquarters are in Addis Ababa, Ethiopia**.
- **Purpose of AU**
  - The AU is guided by its vision of "An Integrated, Prosperous and Peaceful Africa, driven by its own citizens and representing a dynamic force in the global arena."
  - A deadline of 2063 has been set to achieve this mission, representing the centenary of the OAU's formation.
  - Agenda 2063's aspirations include:
  - A prosperous Africa, based on inclusive growth and sustainable development

- An integrated continent, politically united, based on the ideals of Pan-Africanism
- An Africa of good governance, democracy, respect for human rights, justice and the rule of law.
- To achieve the goals set by Agenda 2063, the AU is setting itself a series of five 10-year plans, with the first plan running from 2014 to 2023.

- **Role of AU in promoting peace in the continent**
    - The AU believes that conflicts must be settled before there can be a chance of achieving prosperity. To this end, it set up a **Peace and Security Council** in 2004.
    - The council may intervene in conflicts, replacing the principle of non-interference with one of non-indifference.
    - The council can deploy military forces in situations which include genocide and crimes against humanity. It can authorise peacekeeping missions.
    - The AU oversees the **New Partnership for Africa's Development** (Nepad).
    - This is an anti-poverty blueprint which offers a bargain with the West: the promotion of good political and economic practice in return for more aid and investment.
    - The African Union has regularly suspended member-states over coups d'etat, re-admitting them when they return to constitutional rule.

COWIN DATA BREACH: WHAT DOES THE ALLEGED DATA LEAK REVEAL?

Why in News?

- According to reports, a bot on the messaging app Telegram is reportedly returning personal information of Indian citizens who enrolled with the COVID-19 vaccine intelligence network (CoWIN) portal for vaccination purposes.
- The bot revealed personal details like name, Aadhaar and passport numbers upon entry of phone numbers.

The CoWIN Portal:

- CoWIN is **a government-owned web portal set up in 2021** to administer and manage India's COVID-19 vaccine rollout.

- The platform tracks vaccines and beneficiaries at the national, State, and district levels on a **real-time basis**.
- **It monitors vaccine utilisation and wastage** and maintains an inventory of the vials.
- **For citizens, CoWIN verifies identity**, helps schedule vaccine appointments, and issues a vaccine certificate.
- The platform is a microservices-based, cloud-native architecture developed from the ground up on **Amazon Web Services (AWS)**.
- **A microservice architecture** is a pattern that arranges an application as a collection of loosely linked, fine-grained services.
- These services interact with each other through certain set protocols.

CoWIN Data Breach:

- **This is not the first-time** reports about data leaks have emerged.
- **In January 2022**, the personal data of thousands of people in India were reportedly leaked from a government server.
- The information included COVID-19 test results, phone numbers, names and addresses of citizens.
- **In December 2022**, in a separate security breach, an Iranian hacker claimed to be in possession of data from the CoWIN database.

How did these Data Breach?

- Cloud providers like AWS typically provide **security only for the underlying infrastructure** and not for securing the applications and databases.
- **Legacy systems** deployed in virtual servers are the weak links in the chain, **providing a perfect route for hackers to gain entry into a database**.
- In past data breaches, cyber security experts have attributed data leaks to **human error or negligence in setting up databases in the cloud.**
- **Misconfiguring a system, or involvement of third-party apps** with limited privacy features, could have also exposed user data to unauthorised people.

Government Response on the Recent Data Breach:

- **The Health Ministry denied** recent reports of a data breach and said the allegations were mischievous in nature.
- It added that the **Indian Computer Emergency Response Team (CERT-In)** was reviewing the existing security infrastructure of the portal.
- The Ministry of Electronics and IT said the nodal cyber security agency had reviewed the alleged breach and found that the **CoWIN platform was not directly breached.**

Way Ahead:

- In 2017, the Supreme Court of India (in KS Puttaswamy case) recognised **privacy as a fundamental right,** highlighting the need to protect personal information.
- However, **such leaks reveal that sensitive personal data of millions** of Indian citizens who signed up for the COVID-19 vaccination is in the hands of cybercriminals.
- **Therefore, a data protection law** could be a useful tool in fixing accountability and building safeguards around the use and processing of personal data.