NEWS TODAY

INDIAN OIL CORPORATION LAUNCHES INDIA'S 1ST GREEN HYDROGEN FUEL CELL BUS

- **Hydrogen Fuel cell** is **an electrochemical energy conversion** device that generates **electricity, heat,** and water by using **hydrogen** and **air.**
  - ➤ **Fuel cell technology,** powered by **hydrogen,** is a significant **component of the e-mobility landscape.**
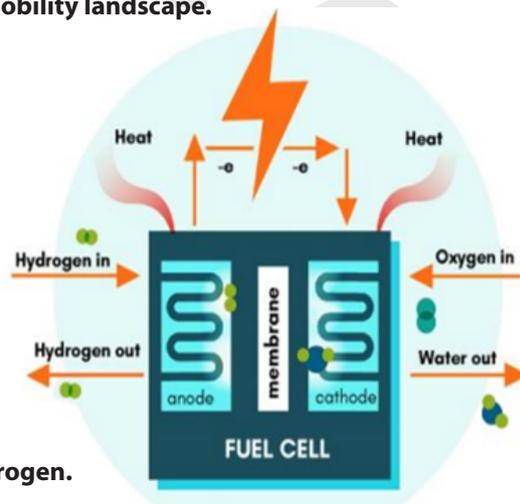
- **Working Mechanism**
  - ➤ **Fuel cells consist** of two electrodes, **an anode,** and a **cathode,** where the reactions take place.
    - ■ An **electrolyte** and a **catalyst** in **fuel cell facilitate reactions.**
  - ➤ **Hydrogen enters a cell and splits** into charged protons and electrons at the anode,
  - ➤ **Negatively charged electrons** are **forced through a circuit,** generating electricity, and **propelling vehicles using motors.**
  - ➤ **Positively charged** protons pass through a membrane to cathode, **combining with oxygen to form water.**

- **Benefits**
  - ➤ **Lower operational costs** due to **higher efficiency** and **high energy density of hydrogen.**
  - ➤ **Shorter refueling time,** and vehicle mileage not influenced by weather conditions.
  - ➤ **Meet climate change goals** through the decarbonization of transportation.
  - ➤ **Overcome issues of smog** and **health problems** caused by air pollution.

- **Issues:** Lack of **infrastructure for production, transportation,** and storage of hydrogen gas, High cost, **Technological challenges like system size, management of air, heat and water, etc.**

AADHAAR, THE MOST TRUSTED DIGITAL ID IN THE WORLD CLAIMS CENTRE

- Refuting the claims made by an investor servicing agency, the centre has claimed that Aadhar is foolproof.

- Aadhaar is a **12 digit individual identification number** issued by **Unique Identification Authority of India (UIDAI)**
  - ➤ **The collected data** is secured in the **Central Identities Data Repository (CIDR)** of UIDAI.

- **Key Features of Aadhaar**
  - ➤ **Uniqueness:** The **biometric de-duplication** avoids multiple cards issue for same information.
  - ➤ **Random number:** The **generated number** is random and devoid of any details like caste, religion, income, etc
  - ➤ **Architecture:** Is **open and scalable**, the current authentication service can handle **100 million authentications a day.**
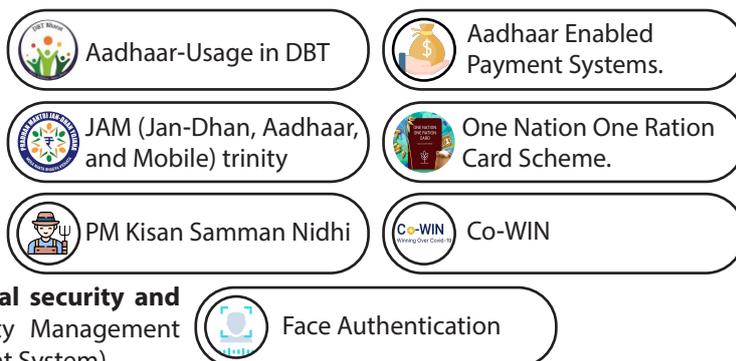
- **Measures taken to ensure safety of Aadhaar**
  - ➤ UIDAI has introduced a **two-layered security mechanism for Aadhaar-based fingerprint authentication** to secure Aadhaar.
  - ➤ Parliament has laid down **robust privacy protections in the law governing the Aadhaar system** through robust arrangements.
    - ■ **Section 32(3) of the Aadhaar Act 2016 prohibits UIDAI from controlling, collecting or maintaining any information** about the purpose of any authentication
  - ➤ **The authentication systems are certified as per international security and privacy standards (ISO 27001:2013** for Information Security Management System and **ISO 27701:2019** for Privacy Information Management System).

THE KEY USAGES OF AADHAAR:

- Aadhaar-Usage in DBT
- Aadhaar Enabled Payment Systems.
- JAM (Jan-Dhan, Aadhaar, and Mobile) trinity
- One Nation One Ration Card Scheme.
- PM Kisan Samman Nidhi
- Co-WIN
- Face Authentication

75% OF INDIA'S TOTAL VILLAGES ARE ODF PLUS UNDER SWACHH BHARAT MISSION – GRAMEEN (SBM-G) AS PER MINISTRY OF JAL SHAKTI.

- More than **4.43 lakh villages** have declared themselves as **Open Defecation Free (ODF) Plus,** which is a significant step towards achieving the **SBM-G phase II goals by 2024-25.**

  - **Top Performing States/UTs** are **Andaman & Nicobar, D&N Haveli,** Goa, Gujarat, **Himachal Pradesh,** J&K, Karnataka, **Kerala, Ladakh,** Puducherry, Sikkim, Tamil Nadu, Telangana & Tripura.

  - **All Villages** in 14 States/UTs achieve ODF Plus Status and in **4 States/UTs** achieve 100% **ODF Plus Model Status.**

- **SBM-G Phase I was launched in 2014** by the **Ministry of Jal Shakti** to **eliminate open defecation** in rural areas by 2019.

  - Under it, **all villages** in India declared **themselves ODF by 2019.**

- **Phase II of SBM-G,** being **implemented from 2020-21 to 2024-25,** focuses on the **sustainability of ODF status** and **Solid and Liquid Waste Management** (SLWM), making **villages ODF Plus.**

- **Major components** under **SBM-G** are:

  - **Plastic Waste Management (PWM),** and **Faecal Sludge Management** (FSM),

  - **GOBARdhan** (Galvanizing Organic Bio-Agro Resources) - Management of **cattle waste,** agriculture waste and **organic waste,**

  - **Information Education and Communication/Behaviour Change Communication (IEC/BCC)** and

  - **Capacity Building.**

CRITERIA OF OPEN DEFECATION FREE (ODF)

SBM ODF: If not a single person is found defecating in the open.

SBM ODF+: ODF status conditions and all community and public toilets are functional and well maintained.

SBM ODF++: ODF+ status conditions and Toilets with sludge and septage management.

INDIA CELEBRATES 5 YEAR OF AYUSHMAN BHARAT AND 2 YEARS OF AYUSHMAN BHARAT DIGITAL MISSION (ABDM)

- Ayushman Bharat aims to move from **sectoral** and **segmented approach** of health service delivery to a **comprehensive need-based health care service.**

  - Launched as per recommendation of by the **National Health Policy 2017.**

  - **It subsumed** the Rashtriya Swasthya Bima Yojana.

- It has **two components:**

  - **Health and Wellness Centres (HWCs)**

  - **Pradhan Mantri Jan Arogya Yojana (PM-JAY)**

- **Ayushman Bharat PM-JAY** is the l**argest health assurance** scheme. Its key features are:

  - **Type: Centrally sponsored scheme**

    - **Funding pattern:** Centre and State is 60:40 in all States except North Eastern States and the three Himalayan States, where the ratio is 90:10.

  - **Objective:** Provides a cover of **Rs. 5 lakhs per family per year for secondary and tertiary care hospitalization** across public and private empanelled hospitals.

    - There is no restriction on the family size, age or gender.

- **Eligibility:** Households included are based on the deprivation and occupational criteria of Socio-Economic Caste Census 2011 (SECC 2011).

  - Families that were **covered in Rashtriya Swasthya Bima Yojana** but **not in SECC, 2011** are **also eligible**

- **Key achievements of PM-JAY:**

  - **9.30** crore families covered.

  - **48% hospitalization for Women**

  - More than **27000 hospital empanelled**

ABOUT ABDM (LAUNCHED IN 2021)

- Aims to develop the backbone necessary to support the i**ntegrated digital health infrastructure** of the country.

- **Key Objectives:**

  - To manage the **core digital health data,** and the infrastructure.

  - To create a system of **personal health records** based on international standards

KOLE WETLANDS OF KERALA FACE THREAT OF ALIEN PLANTS

- **Cabomba Furcuta, aka Pink Bloom,** due its massive flowering, has been a new threat to the Kole fields, in addition to water hyacinth and Salvinia molesta.

  - It is the reason **behind the pink color of the wetland.**

- **About Cabomba Furcuta:**

  - Native to **Central and South America**

  - It is a **submerged perennial aquatic plant** that grows in **stagnant to slow-flowing freshwater.**

  - It requires a **large quantity of oxygen for its growth** and it chokes water bodies and drainage canals.

  - It **causes decline in diversity of native aquatic plants** and causes economic losses by affecting yield of freshwater fishes.

- **About Vembanad Kole Wetland**

  - It is the **largest brackish lake of Kerala, fed by 10 rivers.**

  - Pamba and Achankovil rivers in Vembanad form part of the **Kuttanad.** It is famous for exotic fish varieties and paddy fields that are below sea level.

  - It gets in the way of the **Central Asian Flyway,** harbors birds like **Spot billed Pelican** and others.

RAMSAR CONVENTION

- **Ramsar Convention** adopted in 1971, is an **intergovernmental treaty** under UNESCO that provides the framework for the conservation and wise use of wetlands and their resources.

- Currently, there are **75 Ramsar sites** in India.

MINISTRY OF ROAD TRANSPORT & HIGHWAYS URGES STAKEHOLDERS TO SUPPORT VEHICLE SCRAPPING POLICY

- **Vehicle Scrapping Policy 2021 (Voluntary Vehicle-Fleet Modernization Program)** aimed at **creating an ecosystem** for **phasing out old, unsafe, polluting** vehicles and replacing them with efficient vehicles.
- **Targets:** voluntary scrapping of **~1 crore unfit vehicles based on their fitness,** irrespective **of vehicle age.**
- **Key Provisions**
  - ➢ **De-registrations of vehicles:** Commercial vehicles **over 15 years old** and personal vehicles **over 20 years old** are marked for scrapping and **will be deregistered.**
  - ➢ **Incentives:** concession in **motor vehicle tax of up to 25%** for **non-transport vehicles** and up to **15% for transport vehicles.**
    - ▪ **New vehicle registration fees** waived against **scrapping certificate.**
    - ▪ **Scrapping center** gives **4-6% of the ex-showroom price of a new vehicle** for a scraped vehicle.
- **Stakeholder support** can be driven by **3 pillars** viz.
  - ➢ Setting up **Automated Testing Stations** - for automated **fitness testing.**
  - ➢ **Registered Vehicle Scrapping Facilities -** Promote **safe scrapping** of vehicles and its price discovery.
  - ➢ **More awareness among citizens**
- **Benefits:**
  - ➢ It can increase **auto sales by about 8%** and **contribute 0.5% to the country's GDP.**
  - ➢ Result in a **good recovery of metals, etc. from scrap.**
  - ➢ Improve **compliance** with **environmental protection** regulations etc.

- **Challenges in implementation:** Low **traceability of vehicle** owner channels, High variance in pricing, **Limited check on compliance** etc.

ALSO IN NEWS

Justice Gita Mittal Committee	• It was **constituted** by the **Supreme Court** as an three member women committee in context of **Manipur.** ➢ Its objective was to **supervise, intervene** and **monitor relief** and **rehabilitation,** restoration of homesteads, religious places of worships, better relief work, etc. in Manipur.
SARFAESI Act 2002	• **RBI mandates banks** to **disclose seized borrower assets** as per **Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI)** Act • **SARFAESI Act of 2002 was brought to protect financial institutions** against loan defaulters. • It **allows secured creditors to seize** collateral against loan, after a 60-day default notice. • Borrower's **right of redemption of asset will get extinguished** once the bank publishes an auction notice for the sale.
Unified Registration Portal for GOBARdhan	• Portal seeks to **streamline the registration of Compressed Bio-Gas (CBG)** and biogas plants nationwide. ➢ CBG/Biogas plants registered in the portal are eligible for assistance of **Rs. 1500/MT** under the **Market Development Assistance (MDA)** scheme of the Ministry of Chemicals & Fertilizers. • **GOBARdhan (Galvanizing Organic Bio-Agro Resources Dhan)** Scheme **under** the **Ministry of Jal Shakti.** • **Aim:** To generate wealth and energy by converting cattle dung, agricultural residue, and other organic waste into Biogas, CBG and biofertilizers.
UrbanShift Asia Forum	• First programme of UrbanShift Asia Forum was inaugurated in New Delhi. ➢ Its **objective** is to Provide **training** and **capacity-building** to **regional cities** on various facets of **integrated** and **sustainable urban development.** ➢ It brings together diverse expertise, trainers and businesses to find holistic and hands-on **solutions for tackling urban challenges.** • **Funded by:** Global Environment Facility, led by the UN Environment Programme and implemented in partnership with the World Resources Institute, C40 Cities, etc.
Asola Bhatti wildlife sanctuary (ABWS)	• **Asola Bhatti Sanctuary** is situated in the northeastern part of **Aravalli range,** classified as **tropical desert thorny forest.** • **Range:** stretches across **32.71 square kilometers** in the south-eastern part of the **Delhi Ridge** • **Fauna:** Sambar, Spotted deer, Hog deer, Nilgai, Black Buck, Indian Boar, leopards, Striped hyenas,and rhesus macaques, among other animals. • ABWS is also part of the **Sariska-Delhi Wildlife Corridor** • **Neeli jheel-manmade lake lies** in this sanctuary.

International Coffee Organization (ICO)	• **Fifth World Coffee Conference** was inaugurated in India by ICO, in association with **Coffee Board of India** a statutory organization under the Ministry of Commerce and Industry.
	• It is being held for **the first time in an Asian** coffee-producing country.
	• **About ICO**
	  ➤ Established in 1963 **under the aegis of the United Nations** and following the approval of the **first International Coffee Agreement in 1962.**
	• **Represents 93% of world coffee production** and 63% of world consumption.
	• **Objectives**
	  ➤ to strengthen the global coffee sector
	  ➤ promote sustainable expansion in a market-based environment for the benefit of all actors in the **Global Coffee Value Chain (G-CVC).**
	• **Only intergovernmental organization for coffee,** bringing together exporting and importing Governments.
	• **Membership: 43 exporting members (including India) and 6 importing members.**

Ring of fire	• **Ring of fire** will occur on the upcoming solar eclipse in October • **During** an **Eclipse** when the **moon obstructs the sun but does not fully cover** the disk of the sun, leaving a **thin outer ring often** called a "ring of fire." ➤ **Solar Eclipse** occurs when **the moon travels between Earth and the sun,** obstructing the view of the sun's face.
CE20 E13 engine	• **Indian Space Research Organisation (ISRO)** has successfully fired and tested the CE20 E13 engine at Propulsion Complex (IPRC) in Mahendragiri, Tamil Nadu. • **CE20 is a critical component of the Cryogenic Upper Stage (CUS)** that powers the upper stage (C25) of the LVM3 (Geosynchronous Satellite Launch Vehicle Mk III) vehicle. ➤ LVM3 is configured as a **three stage vehicle** with **two solid strap-on motors (S200), one liquid core stage (L110) and a high thrust cryogenic upper stage (C25).** • **Developed by** the Liquid Propulsion Systems Centre (LPSC) in Valiamala, Kerala. • **Benefit:** It will play a key role in the launch of **Gaganyaan mission** (human-habitable space capsule capable of carrying a three-member crew into an orbit of 400 km).

Woman odhuvar	• Tamil Nadu government has appointed women Odhuvars in temples.
	  ➤ **Odhuvars are in the service of Lord Shiva** by singing his praise from **Thirumurai in Saivite temples.**
	• Thirumurai is a **twelve-volume compendium of songs in praise of Lord Shiva from the 6th to the 10th century CE by Nayanars** in Tamil Nadu.
	  ➤ This first 7 are called Tevaram, written by 3 important nayanar saints Sundarar, Sambandar and Appar.
	  ➤ Manikavasagar completed the 8th Book.
	  ➤ The first 9 books are called Thothithiram (in praise of Shiva).
	  ➤ 10th contains compositions of Tirumular.
	  ➤ 11th has minor works by a Female poet Karaikkal Ammaiyar and Nambi Andar.
	  ➤ 12th is called the Periyarpuranam.

Personality in News	**Pandit Deendayal Upadhyay (1916 –1968)**
	• Born in **Uttar Pradesh,** he was a **Rashtriya Swayam sevak Sangh thinker** and **co-founder of the Bharatiya Jana Sangh.**
	• Leader for adoption **Swadeshi economic** policies based on cultural, civilizational, and nationalist values.
	• **Philosophy: integral humanism – Ekatma Manawvad, a non-dualistic philosophy of Advaita Vedanta**
	• **Contributions**
	  ➤ **In the 1940s,** he started the **monthly Rashtra Dharma publication,** started a **weekly magazine** 'Panchjanya' and a daily 'Swadesh'.
	  ➤ **Books:** He authored Samrat Chandragupta, Jagatguru **Sankaracharya, Akhand Bharat Kyon? Rashtra Chintan, etc.**
	• **Ethical values:** integrity, objectivity, diligence, nationalist,