

NEWS TODAY

ISRO releases images of Sun captured by Aditya-L1's payloads

The images were captured by **remote sensing payloads** i.e. **Solar UltraViolet Imaging Telescope (SUIT)** and **Visible Emission Line Coronagraph (VELC)**, aboard Aditya-L1 spacecraft.

- These images will help in **studying solar flares**, energy distribution, sun spot, **understanding and predicting space weather**, monitoring solar activity and UV radiation over a wide wavelength range.

About SUIT and VELC

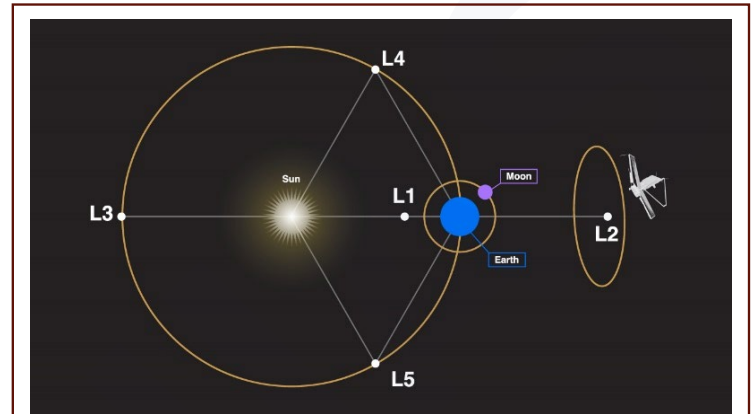
- **SUIT:** To image **Solar Photosphere and Chromosphere** in near **Ultra-violet (UV)** and, to measure solar irradiance variations in near UV.
- **VELC:** To **study solar corona** and dynamics of coronal mass ejections.

About Aditya L-1

- Launched in 2023, it is **India's first space mission to observe Sun** from a halo orbit **around the Lagrange point 1 (L1)** of Sun-Earth system, which is about 1.5 million km from Earth.
- It was launched **by Polar Satellite Launch Vehicle (PSLV) XL (PSLV-C57)** with 7 payloads on board.
- **Significance of Aditya L1**
 - ⊕ To understand Coronal heating and solar wind acceleration.
 - ⊕ Observe in-situ particle and plasma environment providing data for study of particle dynamics from Sun.

Other solar missions

- **NASA's Parker Solar Probe**; **European Space Agency's Solar and Heliospheric Observatory**; **China's Kuafu-1 solar probe** etc.



About Lagrange point (L1)

- At Lagrange points, **gravitational pull of two large masses (like Sun and Earth) precisely equals centripetal force** required for a small object to move with them.
- L1 has advantage of **continuously viewing Sun** without any occultation/ eclipses.
- There are **five Lagrange points**, **three are unstable** (L1, L2, L3- lie along the line connecting two large masses) and **two are stable** (L4, L5).

Pakistan and China agree to upgrade China-Pakistan Economic Corridor (CPEC) in 2nd phase

CPEC phase-1 focused on **infrastructure, energy, and port development projects** while CPEC phase-2 revolves around **Special Economic Zone development and industrialization**.

About CPEC

- It is a **3,000-km-long route** of infrastructure projects **connecting China's northwest Xinjiang Uyghur Autonomous Region and Gwadar Port** in western Pakistan province of Balochistan.
- Launched in 2015, it is a **flagship project under Belt & Road Initiative (BRI)**.
 - ⊕ BRI is a multi-billion-dollar initiative launched in 2013 to **link Southeast Asia, Central Asia, Gulf region, Africa, and Europe** with a network of land and sea routes.

Concerns of India

- CPEC, passes through Gilgit-Baltistan (Pakistan occupied Kashmir) **violating India's sovereignty and territorial integrity**.
- Gwadar port's development **threatens India's maritime security in Arabian Sea** and energy/oil import through Gulf of Oman.
- Economic non-viability of many of the BRI projects that led to **"debt trap" situations** in countries like Sri Lanka.

Steps taken by India to counter CPEC

- **Chabahar port** In Iran, to enhance connectivity and counter Gawadar port.
- **International North-South Transport Corridor**, connecting India to central Asia and Eurasia bypassing Pakistan.



Government to provide assistance to construct 3 crore new Rural and Urban Houses under PMAY

Of the three crore houses, 2 crore will be constructed under PMAY-Rural, while 1 crore under PMAY-Urban.

- 2 crore PMAY Rural houses will be over and above 2.95 crore houses sanctioned under PMAY Rural in 2016.
- The purpose is to meet the housing requirements arising out of the increase in number of eligible families.

About PMAY

- Aims to provide pucca houses to all by 2024.

Parameters	PMAY- Urban	PMAY- Rural
Nodal Ministry	Launched in 2015 by Ministry of Housing and Urban Affairs .	Launched in 2016 by Ministry of Rural Development .
Type	Both Centrally Sponsored and Central Sector Scheme	Centrally Sponsored
Beneficiaries	<ul style="list-style-type: none"> ➤ Economically Weaker Section (EWS) upto 3 lakh income. ➤ Low Income Group (LIG) having 3-6 lakh income. ➤ Middle Income Group (MIG) having 6-12 lakh income. ➤ EWS is eligible for Assistance in all four verticals of Missions whereas LIG/MIG category is eligible under only CLSS component (Central Sector Scheme) of Mission. <ul style="list-style-type: none"> ⊕ Four verticals: In-situ Slum Redevelopment, Credit Linked Subsidy Scheme (CLSS), Affordable Housing in Partnership, Beneficiary-led Construction/ Enhancement. 	Identified through Socio Economic and Caste Census (SECC), 2011 .
Current Status	83.51 Lakh house completed as on 3rd June 2024.	2.62 Crore houses completed as on 11 June 2024.

State of World Fisheries and Aquaculture 2024 report released

It is prepared and released by the **Food and Agriculture Organization (FAO)**.

- The report's special focus is on **"Blue Transformation in Action"**.

Key findings of the report

- World fisheries and aquaculture production hit a new high in **2022 at 223.2 million tonnes**.
 - ⊕ **With 8 percent** of total production, India ranked second in aquatic animals production.
- For the First time, **aquaculture surpassed capture fisheries** as the main producer of aquatic animals.
- With 1.9 million tonnes, India ranked **first in Inland fisheries production**.

Role of Aquatic Foods in Climate Action

- The 2023 **United Nations Framework Convention on Climate Change (UNFCCC)** Ocean Dialogue recognized the potential of aquatic foods for providing critical climate solutions.
- FAO integrates **traditional knowledge for adapting to climate change** in specific areas, like local species suited for evolving conditions.

Blue Transformation in Action

- FAO introduced its "Blue Transformation" vision in 2021, It aims to **leverage aquatic food systems, to enhance food security, improve nutrition, etc**
- **Objectives:**
 - ⊕ **Sustainable aquaculture expansion** to meet global demand, with equitable benefit distribution.
 - ⊕ **Effective fisheries management** for healthy stocks and fair livelihoods.
 - ⊕ **Upgraded aquatic value chains** ensuring social, economic, and environmental sustainability.

Fisheries and aquaculture in the context of Global Biodiversity Agreements

- **Convention on Biological Diversity (CBD)** adopted the Kunming-Montreal **Global Biodiversity Framework (GBF)** in 2022 to help countries develop **national plans for protecting biodiversity and living in harmony with nature**.
 - ⊕ **Aquatic food systems** are directly related to many GBF targets such as management of aquatic spaces; reduction of species extinction risk; etc.
- In 2023, UN members agreed to a **legally binding treaty** for conserving and sustainably using marine biological diversity of areas beyond national jurisdiction.

Strengthening Data Ecosystems in Indian Schools report released

It was released by **Aapti Institute and Mozilla foundation** with funding from United States Agency for International Development (USAID).

- **School education data include** enrollment rates, student-teacher ratios, attendance, assessment results, etc.

Significance of school education data

- Can be utilised for framing **targeted policies and interventions**.
- Can lead to **personalised learning and improved educational outcomes**.
- Will promote **efficient allocation of resources**.

Issues related to data backed education system in India

- **Lack of Integration among diverse data sets** (E.g. distrust in the findings of surveys such as , National Achievement Survey and Annual Status of Education Report)
- **Digital divide** especially in rural and underprivileged regions, leading to data gaps
- **Labour intensive** nature of data collection.

Recommendations

- **Establishment of a centralized data collection agency** for the annual collection of educational data
- **Incentivize teachers undertaking data entry tasks** through financial incentives.
- **Strengthening of infrastructure and capacity** by effective budgeting and training of teachers.
- **Creation of school leaderboards** based on effectiveness in utilization of collected data.

Elements central to data and technology in the Indian education ecosystem

- **The National Digital Education Architecture (NDEAR) under National Education Policy 2020** aims to revolutionize the education system with a unified and interoperable digital infrastructure.
- **Unified District Information System for Education Plus (UDISE+)** manages school level data.
- **Anganwadi Centres through the POSHAN Tracker** oversee data on children between the ages 3 to 6.

First ministerial meeting following BRICS expansion held in Russia

Egypt, Ethiopia, Iran, Saudi Arabia, and the United Arab Emirates joined BRICS last year.

Key Highlights of Joint Statement

- Reaffirmed their commitment to strengthen the framework of **BRICS Strategic Partnership under the three pillars of cooperation** – politics and security, economy and finance, cultural and people-to-people exchanges.
- Supported a comprehensive reform of **the United Nations**.
- Reiterated their commitment to **multilateralism and upholding international law**.

About BRICS

- **BRIC (Brazil, Russia, India, and China) leaders met for the first time**, on the margins of the G8 Outreach Summit in 2006.
 - ⊕ **First BRIC summit** was held in Russia in 2009.
 - ⊕ It became BRICS with the **inclusion of South Africa in 2010**.

Significance of BRICS for India:

- **Voice for developing nations and global south:** Platform for India to raise concerns and advocate for rights of developing countries.
- **Safe space for dialogue:** allows India to resolve mutual differences and use it to strengthen relations with Africa and South America.
- **Other:** Push for reforms in global institutions & building a more inclusive global financial system.

Challenges with the BRICS: divergence between countries with respect to their world view, Internal trust deficit, Overlapping with other groups like IBSA, etc.

Key Initiatives of BRICS

- **New development Bank (HQ: Shanghai):** To mobilize resources for infrastructure and sustainable development.
- **BRICS Contingent Reserve Arrangement:** To stop short-term liquidity crises and further strengthen financial stability.
- **BRICS Payments Task Force:** cooperation on national payments systems.

Also in News



Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)

Prime Minister released 17th instalment of PM Kisan Nidhi scheme.

About PM KISAN

- **Nodal Ministry:** Ministry of Agriculture & Farmers Welfare.
- **Type:** Central Sector Scheme.
- **Aim:** To **supplement financial needs of land-holding farmers families** in procuring various inputs and also domestic needs.
- **Objective:** To provide **income support to all land-holding eligible farmer families** (families include husband, wife and minor children).
- **Beneficiaries:** All landholding farmers, subject to certain exclusions.
- **Benefits:** Rs. 6,000 is transferred annually in three equal instalments of Rs. 2,000 each every four months.
- **Exclusion:** Beneficiaries of higher economic status shall not be eligible.



Veterinary Council of India (VCI)

The names of the individuals elected to serve on VCI have been announced.

- **Every three years**, Department of Animal Husbandry and Dairying holds elections to elect 11 members to VCI.
- Council also includes **nominated members**.

About VCI

- It is a **statutory body** established under **Indian Veterinary Council Act 1984**.
- It receives **100% Grants-in-Aid** from **Ministry of Fisheries Animal Husbandry and Dairying** to cover its office expenses.
- It is charged with responsibilities of **making provision for regulation of veterinary practice**, preparation and maintenance of an Indian Veterinary Practitioners Register etc.



Cold lava

Recently Cold Lava rushed through streets as **Mount Kanlaon erupts in the Philippines.**

Cold Lava(A.k.a. Lehar in Indonesian):

- It is a **dense mixture of volcanic material, debris, and water** that behaves like a fast-moving landslide.
- It occurs **when water interacts with volcanic ash and debris on the slopes** of a volcano.
- It **remains hot internally** due to chemical reactions within volcanic material.
- **Threats Posed:**
 - ⊕ It can advance rapidly, **giving little time to evacuate.**
 - ⊕ Its **high density and abrasive nature** can cause significant damage to buildings & roads, and human life.



Lipulekh pass

Indian traders are demanding resumption of border trade with China through Lipulekh pass which was closed during Covid-19 pandemic

About Lipulekh Pass

- It is located close to the **tri-junction of India, China (Tibet) and Nepal** and is situated in Uttarakhand (Pithorgarh district).
- It is a major pass of **Kumaun region** situated in Kali Valley.
- It has been an **ancient trade route used for centuries by traders, pilgrims, and travellers** for cultural exchange.
- Traveling through Lipulekh Pass **significantly reduces travel time for Kailash Mansarovar Pilgrimage.**



Xylitol

Recent study has found out that **Artificial sweetener xylitol may pose health risks.**

- According to study, it can increase risk of cardiovascular events, including heart attacks and strokes.

About Xylitol

- It is a **sugar alcohol** that is **commonly used as a sweetener.**
 - ⊕ Sugar alcohols combine traits of **sugar molecules and alcohol molecules.**
- It is a **common ingredient in sugar-free** chewing gums, diabetes-friendly foods and oral-care products.
- It can be **found naturally or artificially produced**, primarily from plant materials.



Microalgae

CSIR-ICT scientists highlighted microalgae potential as a **protein supplement.**

About Microalgae:

- Diverse group of **single-cell photosynthetic organisms**, both prokaryotes and eukaryotes.
- These are groups of **autotrophic microorganisms** that live in marine, freshwater, and soil ecosystems.
- **Significance:**
 - ⊕ **Nutrition:** These are rich in nutrients and biologically active substances, such as proteins, vitamins, etc.
 - ⊕ **Carbon cycle:** They absorb carbon dioxide and produce oxygen through photosynthesis.
 - ⊕ **Food Chain:** Phytoplankton, which forms the base of the food chain, includes microalgae.



General Anti-avoidance Rule (GAAR)

Telangana High Courts ruled in favor of GAAR against a taxpayer and has held that **colourable devices (transactions without commercial substance)** cannot be part of tax planning.

About GAAR

- It empowers tax authorities to **deny tax benefits on transactions or arrangements that have no commercial substance** and whose only purpose is to avoid tax.
- It came into effect on **1st April 2017.**
- Provisions of GAAR are contained in Chapter X-A of the **Income-tax Act, 1961.**



Atal Innovation Mission (AIM)

AIM, NITI Aayog has launched **two initiatives** to foster innovation.

- **AIM – Innovation Centre Denmark (ICDK) Water challenge 4.0** to address critical water-related challenges through inventive solutions.
- **Innovations For You – Sustainable Development Goals Entrepreneurs of India** handbook spotlights entrepreneurs from diverse corners contributing to societal betterment through sustainable innovations.

About AIM

- Launched in 2016 by NITI Aayog, it is Government of India's flagship program to **promote a culture of innovation and entrepreneurship.**
- All the initiatives of AIM are monitored using real-time systems and dynamic dashboards.

Personality in news



Ramprasad Bismil (1897-1927)

Birth anniversary of Ram Prasad Bismil was recently celebrated.

Early Life

- Born in the **Shahjahanpur district** of present-day Uttar Pradesh.

Contribution

- At young age, Joined the **Arya Samaj Youth Association** and began spreading the teachings of Swami Dayanand.
- In the **Mainpuri Conspiracy (1918)**, police found Bismil among youths selling banned books.
 - ⊕ He published a pamphlet titled '**Deshwasiyon ke Naam**' and distributed it along with his poem '**Mainpuri ki Pratigya**'.
- In **1924**, Sanyal, Bismil, Ashfaqullah, and Chatterjee united to establish the **Hindustan Republican Association.**
- He was the mastermind behind the infamous **Kakori Conspiracy Case.**

Values: Patriotism, Courage, Leadership, etc.

