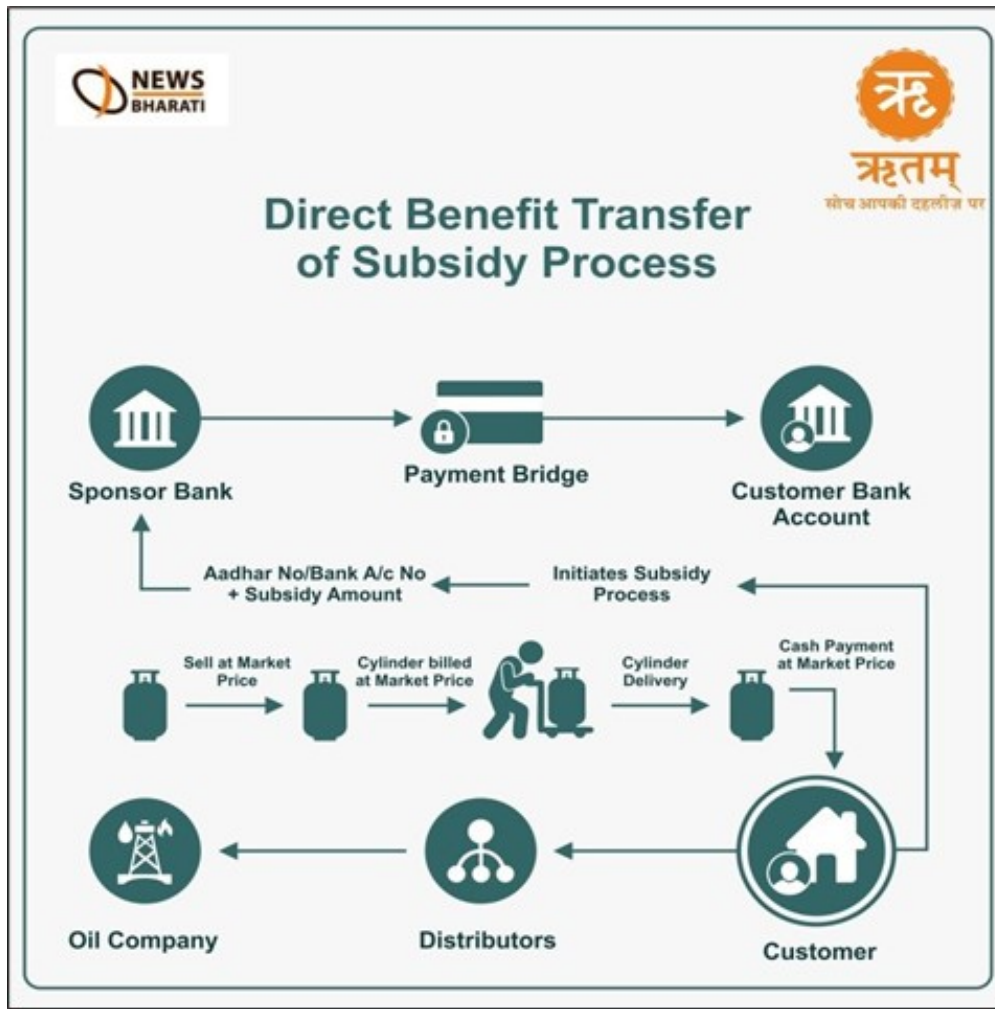


UPSC Daily Current Affairs | Prelim Bits 26-07-2024

Pratyaksh Hanstantrit Labh (PAHAL) Scheme

The Union government has introduced Aadhar-based LPG customer authentication to improve beneficiary targeting in the PAHAL and Ujjwala Schemes.

- The PAHAL or Direct Benefits Transfer for LPG (DBTL) scheme is an initiative aimed at ***transferring subsidies*** directly into the bank accounts of consumers purchasing LPG cylinders.
- **Launched in** - June 2013.
- The scheme was later modified and relaunched on January 1, 2015.
- **Nodal Ministry**- Ministry of Petroleum and Natural Gas.
- **Aim**- This scheme aims to ***reduce subsidy leakage, eliminate duplication***, and ensure subsidy reaches the intended beneficiaries.
- **Eligibility**- All domestic LPG consumers who have completed the KYC process and linked their Aadhaar or bank account details with their LPG consumer number are eligible.
- The subsidy amount is directly transferred to the consumer's bank account after the purchase.
- **Subsidy**- A targeted subsidy of ***Rs.300 per 14.2 kg cylinder for up to 12 refills*** of 14.2 Kg equivalent domestic LPG is being provided to all PMUY consumers.
- In addition, various State Governments have also been providing subsidized refills or further subsidies to PMUY beneficiaries.
- **Key Features of Scheme**
 - To streamline the subsidy distribution process for LPG cylinders.
 - To reduce misuse and diversion of subsidized LPG.
 - To ensure that the benefits reach the deserving sections of society directly.
- **Total participation**- As July 2024, more than ***30.19 crore LPG consumers are enrolled under PAHAL scheme.***



Reference

[PIB | PAHAL Schemes](#)

Type of Reactors

During the 2024 Budget speech, the Finance Minister highlighted small modular reactors (SMRs) as a promising technology.

- Bharat Small Reactors are compact nuclear **reactors designed to generate electricity** on a smaller scale than traditional large nuclear power plants.
- The BSRs will be based on India's tried and tested **220-megawatt pressurized Heavy Water Reactor (PHWR) technology**, of which 16 units are already operational in the country.

A pressurized heavy-water reactor (PHWR) is a nuclear reactor that uses heavy water (deuterium oxide D₂O) as its coolant and neutron moderator.

| Feature | Large Conventional Reactors | Small Modular Reactors (SMRs) | Micro Reactors |
|----------------------|----------------------------------------------------|------------------------------------------------------------------|--------------------------------------------------------------------|
| Power Output | 1000 - 1700+ MW | 10 - 300 MW | < 10 MW |
| Size | Very large, requires significant space | Modular, smaller footprint | Minimal, compact design |
| Construction Time | 5-10 years | 3-5 years | 1-3 years |
| Scalability | Limited, typically single unit | High, can be added incrementally | Very high, suitable for remote or small-scale applications |
| Fuel Cycle | Typically uses enriched uranium | Can use enriched uranium, thorium, or other fuels | Often uses advanced fuels like TRISO fuel |
| Economic Model | Economies of scale, centralized power generation | Cost-effective through factory assembly and modular construction | Cost-effective for niche markets and remote locations |
| Environmental Impact | High impact due to large footprint and water usage | Lower impact, more efficient land and water use | Minimal impact, designed for minimal environmental footprint |
| Grid Compatibility | Requires robust, stable grid | Can support both large and small grids | Ideal for microgrids and isolated applications |
| Use Cases | Base load power generation for large urban centers | Flexible use for urban, industrial, and rural areas | Remote areas, military bases, disaster recovery, small communities |

- **Objective-** SMR reactors represent a significant shift in India's nuclear energy strategy, aiming to make nuclear power more accessible and versatile.
- **PPP model-** The government plans to partner with the private sector to set up Bharat Small Reactors and **conduct R&D on small modular reactors** and new nuclear technologies.

References

1. [The Hindu | Reactors](#)
2. [India Today | Bharat Small Reactors](#)

Vishnupad Temple and Mahabodhi Temple

The Finance Minister announced during her Union Budget Speech recently that corridor projects will be built for the Vishnupad Temple and the Mahabodhi Temple.

Vishnupad Temple

- The temple is dedicated to Lord Vishnu located in Gaya, Bihar.
- It was built by **Queen Ahilyabai Holkar in 1787** on the banks of **the Phalgu River**.
- It is around 100 feet tall and has 44 pillars.
- Dharmasila, the footprint of Lord Vishnu etched into a slab of basalt, marks the location of this temple.
- The entire temple is carved by the large **grey granite stones** joint with iron clamps.



Mahabodhi Temple

- It is one of the 4 sacred sites associated with the life of Lord Buddha and is significant as the location where Buddha attained Enlightenment.
- It is located in Bodh Gaya in Bihar, on the banks of the **Niranjana River**.

- **Built by - *Emperor Ashoka*** in the 3rd century B.C.
- The temple is recognized as a ***World Heritage site by UNESCO***.
- The temples is completely built in brick had significant influence on the development of brick architecture over the centuries.



Reference

[Indian Express | Vishnupad and Mahabodhi temples](#)

The National Mission for Manuscripts (NMM)

Union Minister for Culture and Tourism speaks about the National Mission for Manuscripts (NMM) recently.

- **Aim-** The Mission seeks to unearth and preserve the vast manuscript wealth of India.
- **Establishment-** 2003.
- **Nodal agency-** Ministry of Tourism and Culture.
- **Mandate-** The Mission has the mandate of identifying, documenting,

conserving, and making accessible the manuscript heritage of India.

- **Motto**- NMM is working towards fulfilling its motto, '*conserving the past for the future*'.
- **Objectives**
 - Locate manuscripts through national level Survey and Post-Survey
 - Document each manuscript and manuscript repository, for a National Electronic Database.
 - Conserve manuscripts incorporating both modern and Indigenous methods of conservation and training a new generation of manuscript conservators
 - To train the next generation of scholars in various aspects of Manuscript Studies like languages, scripts, and critical editing and cataloging of texts and conservation of manuscripts
 - To promote access to manuscripts by digitizing the rarest and most endangered manuscripts
 - To promote access to manuscripts through the publication of critical editions of unpublished manuscripts and catalogs
 - To facilitate the public's engagement with manuscripts through lectures, seminars, publications, and other outreach programs
- **Significance**
 - India possesses an estimate 10 million manuscripts, probably the *largest collection in the world*.
 - These cover a variety of themes, textures and aesthetics, scripts, languages, calligraphies, illuminations and illustrations.

Quick facts

Manuscript

- A manuscript is a handwritten composition on paper, bark, cloth, metal, palm leaf or any other material dating back *at least seventy-five years* that has significant scientific, historical or aesthetic value.
- Lithographs and printed volumes are not manuscripts.
- Manuscripts are found in hundreds of different languages and scripts.

- Manuscripts are distinct from historical records such as epigraphs on rocks, firmans, revenue records which provide direct information on events or processes in history.
- Manuscripts have knowledge content.

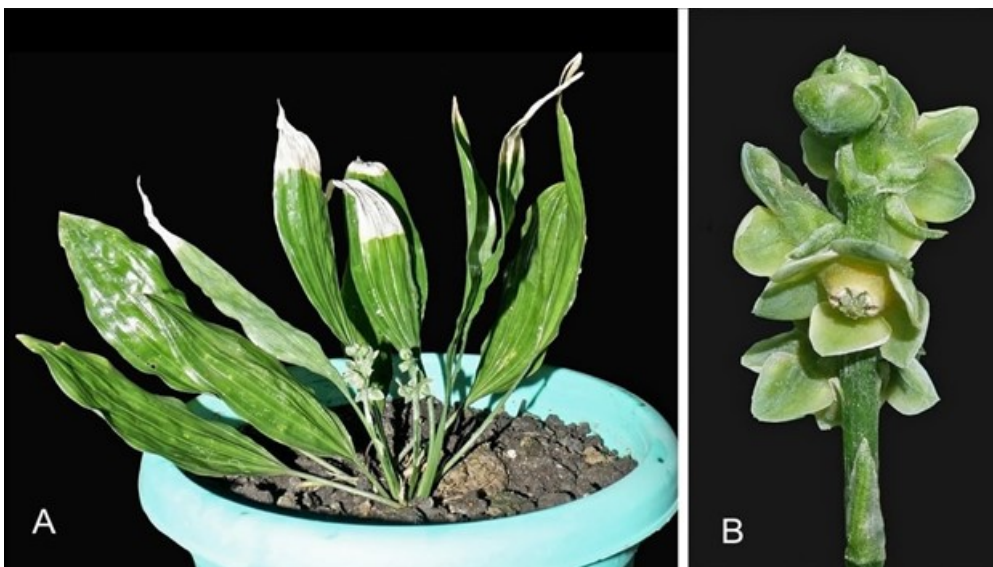
References

1. [PIB | The National Mission for Manuscripts \(NMM\)](#)
2. [Ministry of Culture | The National Mission for Manuscripts](#)

Peliosanthes Meghalayensis

An extraordinary rare plant species was discovered in the Wari Chora in Garo Hills in Meghalaya.

- Peliosanthes Meghalayensis is a small terrestrial and evergreen herb, that thrives sporadically on the slopes towards the Wari Chora gorge in Meghalaya.
- **Family** -Asparagaceae.
- **Habitat** - Evergreen forest, boasts a humid climate ideal for this species.
- **Distribution** - These are distributed in south and southeast Asia, covering India, Nepal, Myanmar, Thailand, Malaysia, Indonesia, Vietnam, China and Taiwan.
- **Similarity** - It is Similar to *P. pumila* but differs chiefly by knobby rhizome, broader leaf blades, closer transversal veinlets, slightly larger cernuous flowers, and pistils with 6 distinct ridges.
- **Conservation Status** - Its wider distribution remains unknown, prompting a provisional assessment as ***Data Deficient (DD)***.



Reference

1. [Hub Network | Peliosanthes Meghalayensis](#)
2. [Science Direct | Peliosanthes meghalayensis](#)