



23 August 2024

National and International News

<p>Lunar Magma Ocean</p>	<p>Why in the news?</p> <ul style="list-style-type: none"> India's recent Chandrayaan-3 mission findings have reignited interest in the Lunar Magma Ocean (LMO) theory, a key concept in planetary science that explains the moon's early formation. <p>About Lunar Magma Ocean:</p> <ul style="list-style-type: none"> Chandrayaan-3 Discovery: <ul style="list-style-type: none"> Pragyan rover identified ferroan anorthosite in the lunar south pole region. This aligns with Apollo and Luna mission observations, confirming the theory of remnants from an ancient magma ocean. Lunar Magma Ocean (LMO): <ul style="list-style-type: none"> Hypothesized early stage in the moon's history with a fully molten surface. Believed to have formed after a catastrophic impact between early Earth and a Mars-sized body. Ferroan Anorthosite: <ul style="list-style-type: none"> Crucial evidence of the LMO. Formed as the magma cooled and solidified, with calcium and aluminium-rich minerals floating to the surface to form the moon's initial crust.
---------------------------------	--



Daily Current Affairs Encyclopedia

Prime Minister Employment Generation Programme (PMEGP)

Why in the news?

- The Department of Posts and KVIC have collaborated to enhance the implementation of the PMEGP across India.

About PMEGP:

- **Administering Ministry:** Ministry of Micro, Small and Medium Enterprises (MSME).
- **Objectives:**
 - **Generate employment opportunities in rural and urban areas** through self-employment ventures, projects, and micro-enterprises.
 - **Provide self-employment opportunities to traditional artisans, rural and urban unemployed youth**, helping them remain in their local areas.
 - **Increase the wage-earning capacity of workers and artisans**, contributing to the growth of rural and urban employment.
- **Eligibility:**
 - Individuals aged **18 and above**.
 - **No income ceiling** for assistance under PMEGP.
 - **Educational qualification:** For projects costing above **₹10 lakh (Manufacturing)** and **above ₹5 lakh (Business/Service)**, beneficiaries must have at least a pass in the VIII standard.
- **Implementing Agency:** Khadi and Village Industries Commission (KVIC).

National Space Day 2024

Why in the news?

- India to celebrate the first National Space Day on 23 August 2024.

About National Space Day 2024:

- Celebrates the successful soft landing of the Vikram Lander from Chandrayaan-3 on the lunar surface on August 23, 2023.
- India became the fourth country to land a rover on the moon and the first to land near the southern polar region.
- The day commemorates India's growing prowess in space exploration, officially declared by the government.



Daily Current Affairs Encyclopedia

- **Theme for National Space Day 2024:** Touching Lives while Touching the Moon: India's Space Saga.
- **Future Space Missions:**
 - Union Minister Dr. Jitendra Singh announced **Chandrayaan-4** and **Chandrayaan-5** as follow-up missions to Chandrayaan-3.
 - The **Gaganyaan Mission**, aiming to send the **first Indian into space**, is scheduled for **2025**.
 - India **plans to establish the Bhartiya Antariksh Station by 2035** and an **Indian landing on the moon by 2045**.

Global Peace Index 2024



Why in the news?

- Countries like **Yemen, Afghanistan, and Sudan** are among the **most dangerous due to ongoing conflicts** that have **severely impacted their populations and infrastructure**.

Key points:

- **Global Peace Index (GPI):**
 - The **GPI is compiled by the Institute for Economics and Peace**, a non-profit organization.
 - It provides a **critical measure of the safety and stability of 163 countries**, focusing on those most affected by war, violence, and unrest.
- **Evaluation Criteria:**
 - The **GPI assesses countries across 23 indicators**, including **internal conflicts, societal safety, and levels of militarization**.
 - This index offers a **comprehensive assessment of global peace and security**, highlighting the most dangerous countries in the world.



Genome Editing- ISDra2TnpB

Why in the news?

- A recent **breakthrough** in **plant genome editing** was achieved through a **collaborative effort** between **ICAR-National Rice Research Institute in Cuttack, India**, and **Pennsylvania State University, USA**.

About Genome Editing- ISDra2TnpB:

- A **new genome-editing tool** derived from the **bacteria Deinococcus radiodurans**.
- **Key Features of ISDra2TnpB:**
 - **Size Advantage:** **Less than half the size of Cas9 and Cas12**, allowing for **more efficient delivery and function within plant cells**.
 - **High Editing Efficiency:** Demonstrates a **33.58% editing efficiency in average plant genomes**, making it promising for various crops.
 - **Versatility: Effective in editing both monocot plants** (e.g., rice) and **dicot plants** (e.g., Arabidopsis).
- **Potential Applications in Agriculture:**
 - Pest Resistance
 - Nutritional Enhancement
 - Resilience to Environmental Stress

Copyright © by Adda247

All rights are reserved. No part of this document may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior permission of Adda247.