

## Cabinet approves Amendment in “Pradhan Mantri JI-VAN Yojana”

- The government is enhancing efforts to meet ethanol blending goals, with a focus on innovative technologies and new feedstocks.
- Ethanol blending with petrol has increased significantly, surpassing **500 crore liters in 2022-23**, with a current blending rate above **15%**. The target is to achieve **20% blending by the end of 2025-26**.
- **Pradhan Mantri JI-VAN Yojana:**
  - **Launched in 2019**, this scheme provides financial support for developing **2nd Generation (2G) ethanol** from surplus biomass and agricultural waste. It has helped establish **India’s first 2G ethanol plant**, set up by **Indian Oil Corporation in Panipat**.
- **Approved Key Changes:**
  - **Extended Timeline:** The implementation period has been extended by five years, **until 2028-29**.
  - **Expanded Scope:** The scheme now includes biofuels made from lignocellulosic feedstocks like agricultural residues, forestry waste, industrial by-products, and algae.
  - **Eligibility:** **"Bolt-on"** plants and **"brownfield projects"** are now eligible for support.
- **Significance of Changes:**
  - The updates provide financial support across multiple sectors, ensure stable income for farmers by selling agricultural residues, reduce environmental pollution, and strengthen India’s energy security and self-reliance. These changes align with India’s goal of achieving **net-zero greenhouse gas emissions by 2070** and support the **Make in India initiative**.
- **Biofuel Generations:**
  1. **First Generation:** Made from edible materials, which can impact food security.
  2. **Second Generation:** Derived from non-edible sources like agricultural and forest residues, and crops grown specifically for biofuel.
  3. **Third Generation:** Produced from aquatic biomass, such as algae.
  4. **Fourth Generation:** Generated using engineered plants and microorganisms.

## Government of India issues Operational Guidelines for Implementation of 'Model Solar Village' under PM-Surya Ghar: Muft Bijli Yojana

- The **Ministry of New & Renewable Energy (MNRE)**, which is responsible for **PM-Surya Ghar: Muft Bijli Yojana**, has issued guidelines for this scheme. Previously, guidelines for other sub-components like Capacity Building were also released.
- **About Model Solar Village:**
  - **Objective:** The goal is to create one Model Solar Village in every district across India. This initiative aims to make village communities more self-reliant in fulfilling their energy needs.
  - **Eligibility:** Villages with a population of over **5,000**, according to the Census, are eligible.
  - **Financial Support:** Each Model Solar Village will receive a grant of **₹1 crore**.
  - **Implementation:** The State Renewable Energy Development Agency or any other agency nominated by the State/UT Government will be responsible for implementing the project.
- **About PM-Surya Ghar: Muft Bijli Yojana (2024):**
  - **Aim:** The scheme aims to install **rooftop solar (RTS)** systems and provide free electricity of up to 300 units per month to **1 crore households**.
  - **Subsidy Structure:**
    - The scheme offers a 60% subsidy for solar systems up to 2 kW capacity.
    - For systems between 2 to 3 kW capacity, a 40% subsidy on the additional cost is provided.
  - **Potential Benefits:** The initiative is expected to help 1 crore families save ₹15,000 crore annually. Additionally, households can earn income by selling surplus power back to the electricity distribution companies (DISCOMs).

## India and Nepal Sign MoU for Munal Satellite Launch

- **India and Nepal** have signed a **Memorandum of Understanding (MoU)** to provide grant assistance for the launch of **Nepal's Munal Satellite**. This partnership highlights the increasing importance of space technology in international diplomacy.
  - **About Munal Satellite:** Munal is Nepal's indigenous satellite, designed to create a vegetation density database of Earth's surface. It will be launched using **NewSpace India Limited's (NSIL) Polar Satellite Launch Vehicle**.
- **About Space Diplomacy:**
  - Space diplomacy involves using space science and technology to achieve foreign policy objectives and strengthen a nation's space capabilities.
- **India's International Space Cooperation:**
  - **India-US:** India has joined the Artemis Accord, a U.S.-led initiative for space exploration and cooperation. They also collaborate on the NASA-ISRO Synthetic Aperture Radar (NISAR) satellite.
  - **India-EU:** India and the European Union have an agreement to share earth observation data from each other's satellites.
  - **India-Russia:** India and Russia cooperate on the human spaceflight program.

## Neelakurinji (Strobilanthes kunthiana)

- **Neelakurinji** has been listed as "**Vulnerable**" on the **International Union for Conservation of Nature (IUCN) Red List of threatened species**.
- **About the Plant:** Neelakurinji is a shrub known for its rare blooming cycle, occurring once every 12 years. It is semelparous, meaning it blooms just once before dying.
- **Location:** This plant is primarily found in the Shola grasslands of the Western Ghats, including the Nilgiri Hills, Palani Hills, Eravikulam Hills of Munnar, and also in the Shevaroy Hills of the Eastern Ghats. The Nilgiris, or "blue mountains," get their name from the color of these flowers.
- **Major Threats:** Neelakurinji faces threats from tea and softwood plantations, urbanization, and the invasion of exotic species like eucalyptus and black wattle.

## Clean Plant Programme (CPP)

- The Union Cabinet has approved the **Clean Plant Programme (CPP)** to improve the quality and productivity of fruit crops across India.
- **About the Clean Plant Programme (CPP):**
  - **Objective:** CPP aims to tackle key challenges in horticulture by providing farmers with high-quality, virus-free planting material. This will benefit various stakeholders, including farmers and consumers, and strengthen India's position in the global fruit market.
  - **Clean Plant Centers (CPCs):** Nine advanced CPCs will be set up across the country, each focusing on specific fruit types. These centers will be equipped with modern facilities, including tissue culture labs, for diagnosing and treating plant materials.
  - **Regulatory Measures:** A strict certification system will be put in place under the **Seeds Act of 1966** to ensure accountability and traceability in the production and sale of planting material.
  - **Infrastructure Support:** Large nurseries will receive support to develop infrastructure, helping them efficiently produce clean planting material.
  - **Integration with MIDH:** CPP will work alongside the **Mission for Integrated Development of Horticulture (MIDH)**, a **Centrally Sponsored Scheme started in 2014-15**, which focuses on the overall growth of the horticulture sector. MIDH covers a variety of crops, including fruits, vegetables, spices, flowers, and more.
  - **Implementation:** The programme will be implemented by the **National Horticulture Board** in partnership with the **Indian Council of Agricultural Research (ICAR)**.

## Exercise Udara Shakti 2024

- The **Indian Air Force (IAF)** contingent has returned to India after successfully taking part in **Exercise Udara Shakti 2024**.
- **About the Exercise:**
  - This air exercise was conducted in collaboration with the Royal Malaysian Air Force (RMAF) at Kuantan, Malaysia.
  - The exercise aimed to improve operational efficiency and strengthen the technical skills of both air forces.

## 'Parvat Prahaar' Exercise

- The Indian Army is conducting the 'Parvat Prahaar' exercise in Ladakh, focusing on high-altitude warfare and operations.
- The exercise involves various military units and equipment to ensure readiness near the India-China border.

## PM Releases 109 High Yielding, Climate Resilient And Biofortified Varieties Of Crops

- These crops, developed by the Indian Council of Agricultural Research (ICAR), are part of a "lab to land" initiative. ICAR has been running crop-improvement programs to create new crop varieties and hybrids with greater adaptability and higher yields.
- **The crop improvement process employs various strategies, including:**
  - Genomics-assisted selection
  - Phenomics (systematic measurement and analysis of traits)
  - Conventional breeding
  - Biotechnology-based methods like genetic engineering and genome editing
- **Need for Crop Improvement:**
  - **Climate Change Management:** Climate-resilient seeds can produce good yields even under extreme weather conditions, such as heat waves and droughts. For example, Bt cotton. These crops help reduce losses from diseases and pest attacks.
  - **Food Security:** Agricultural yields are predicted to decrease by 16% by 2030 (World Economic Forum). Improved crop varieties are essential to mitigate this impact.
  - **Nutritional Security:** The government is promoting biofortified crops, which are linked to programs like the Mid-Day Meal (PM Poshan Scheme) to combat malnutrition. These crops are affordable, as biofortified varieties do not require additional costs for enrichment, such as vitamin-A rich maize grains.
  - **Raising Farmers' Income:** High-yielding and adaptable crop varieties help boost farmers' income.
- **About Biofortification:**
  - Biofortification is the process of enhancing the nutritional quality of food crops, such as iron and zinc-rich wheat grains. Unlike conventional fortification, which adds nutrients during processing, biofortification increases nutrient levels in crops as they grow.
- **About the Lab to Land Programme:**
  - The Lab to Land programme promotes the transfer of improved agricultural technology from universities and research institutions to farmers.

## Lok Sabha Passes Finance Bill, Amends LTCG Tax Provision On Immovable Properties

- The amendment follows a proposal in the Budget 2024-25 to remove the indexation benefit when calculating Long-Term Capital Gains (LTCG) on the sale of immovable properties. The budget suggested a reduced 12.5% LTCG tax rate on all assets (without indexation), down from the previous 20%.
- **Indexation Benefits:** Indexation adjusts the purchase price of an asset based on inflation, helping to neutralize the impact of inflation on capital gains and reducing the taxpayer's overall tax liability.
- **Key Provisions of the Amendment:**
  - Two LTCG tax rate options are now available to individuals or Hindu Undivided Families (HUFs) for real estate properties (land or buildings) acquired before July 23, 2024:
    - A 12.5% tax rate without indexation benefit
    - A 20% tax rate with indexation benefit
  - Taxpayers can choose whichever option is more advantageous.
- **Capital Gains (CG):** Capital Gain refers to the profit earned from selling any capital asset, such as real estate, stocks, or bonds. Since these profits are considered income, they are subject to taxation, known as capital gains tax.
- **Types of Capital Gains:**
  - **Short-term Capital Gains (CG):** Gains from listed financial assets held for less than a year, and unlisted financial assets or non-financial assets held for less than two years.
  - **Long-term Capital Gains (CG):** Gains from listed financial assets held for more than a year, and unlisted financial assets or non-financial assets held for at least two years.