

Government launches Star Labeling Programme (SLP) for Solar Photovoltaic Modules (PVM)

- The programme will help citizens to make an informed decision while deploying solar PVM or solar panels.
 - ⊕ Solar panels convert light energy captured from Sun into electric energy.
 - ⊕ In India, solar panel installation has grown with a CAGR of 30% from 2014 to 2022.

➤ It is voluntary for two years and will be compulsory after that.

➤ Expected outcome

⊕ A progression from 1-Star to 5-Star solar PVM will result in additional electricity generation of around 35%.

⊕ Reduce carbon dioxide emissions by 30 million tonnes per annum by 2030.

➤ About SLP

⊕ **Background:** Launched in 2006 under Ministry of Power.

⊕ **Objective:** Provide consumers with an informed choice regarding the energy savings and thereby the cost-saving potential of various energy-consuming appliances.

⊕ **Implementation:** By Bureau of Energy Efficiency (BEE) which is established under the Energy Conservation Act, 2001.

- ◆ Star Rating of Commercial Buildings, Eco Niwas Samhita, Perform, Achieve and Trade (PAT), etc. are also key initiatives of BEE.

⊕ **Applicability:** Mandatory for 15 appliances and voluntary for 20 (including Solar PVM).

⊕ **Achievement:** Emissions reduction of almost 58 million tonnes of CO2 per annum.

List of 35 Appliances/Equipment

Mandatory	Voluntary
1. Frost Free Refrigerator	1. General Purpose Industrial Motor
2. Direct Cool Refrigerator	2. Agricultural Pump Set
3. Deep Freezers	3. Domestic Gas Stove
4. Room Air Conditioner (Variable Speed)	4. Washing Machine (Semi/Top Load/Front Load)
5. Room Air Conditioner (Fixed Speed)	5. Computer
6. RAC (Cassette, Floor Standing Tower, Ceiling, Corner AC)	6. Ballast
7. Light Commercial AC Fixed Speed	7. Office Automation Products
8. Stationary Storage Type Electric Water Heater	8. Diesel Engine Driven Monoset Pumps for Agricultural Purposes
9. Tubular Fluorescent Lamps	9. Solid State Inverter
10. LED LAMPS	10. Diesel Generator Set
11. Ultra-High Definition (UHD) Televisions	11. Microwave Oven
12. Colour Television	12. Solar Water Heater
13. Distribution Transformer	13. Air Compressors
14. Ceiling Fan	14. High Energy Li-Battery
15. Chillers	15. Tyres/Tires
	16. Side by Side/Multi Door Refrigerator
	17. Pedestal Fan
	18. Table/Wall Fan
	19. Induction Hob
	20. Solar PVM



SC Directs Union and State governments to Completely Eradicate Manual Scavenging

➤ **Manual Scavenging** is an act in which a person is engaged in cleaning, carrying, or handling in any manner, human excreta in an insanitary latrine or in an open drain or pit or on a railway track, etc.

⊕ India had approximately 58,098 manual scavengers in 2021, over 75% being women.

⊕ Between 2018-22, 339 died cleaning sewers and septic tanks.

➤ Directions issued under **Dr. Balram Singh v. Union of India** for effectively implementing **Prohibition of Employment as Manual Scavengers and their Rehabilitation Act 2013**.

➤ SC's Directions:

⊕ **Compensation** in cases of sewer deaths must be increased to Rs.30 lakhs.

- ◆ Compensation case of permanent disablement and other forms of disablement is Rs.20 lakhs and Rs. 10 lakhs, respectively.

⊕ For rehabilitation of victims and their families, provide scholarships and skill programs.

➤ Prohibition of Employment as Manual Scavengers and their Rehabilitation Act 2013

⊕ **Prohibit:** No person or agency can engage or employ any person for manual scavenging.

- ◆ However, cleaning excreta with protective gear is not considered manual scavenging.

⊕ **Violation:** of the act is punishable with imprisonment up to 2 years or a fine up to Rs. 1 Lakh or both.

⊕ **Local authorities** must identify manual scavengers, demolish 'insanitary latrines', and maintain community sanitary latrines.

Initiatives

- **National Action for Mechanized Sanitation Ecosystem (NAMASTE)**
- **Swatch Bharat Mission:** the word "manhole" was replaced with "machine-hole" in official usage.
- **National Safai Karamcharis Finance and Development Corporation (NSKFDC)** provides financial assistance at concessional rates for their upliftment.

Ministry of Electronics and IT committee recommends setting up the India Semiconductor Research Centre (ISRC)

- ISRC would be a **world-class research institution** with an aim to make India a **global foundry supplier** for semiconductors, packagers, and **integrated systems from design to products**.
 - ⊕ **Semiconductors** are materials with **conductivity between conductors and insulators**, that control the **flow of electric current** in electronic devices.
 - ⊕ Semiconductors are **essential in electronics**, including **diodes, transistors, integrated circuits**, and telecommunications.
- ISRC is part of India's strategy to become a global semiconductor research and innovation hub
- **Roadmap of ISRC covering foundational pillars viz:**
 - ⊕ Advanced silicon, **packaging R&D, compound/power semiconductors**, chip design, and **electronic design automation (EDA) tools**.
- **Committee Recommend ISRC, would:**
 - ⊕ **provide a platform for early scaled-up concept verification** and
 - ⊕ **workload-based prototyping** e.g., next-generation chipset-based packaging for AI, 5G/6G, IoT/manufacturing 4.0.
- **Need**
 - ⊕ **enable digital transformation** under Industry 4.0.
 - ⊕ **Increase multiplier effect** across sectors with deeper global value chain integration.
 - ⊕ promote **higher domestic value** addition in **electronics manufacturing**.
- **Challenges for Semiconductor:** Resource-intensive and expensive process, regular power supply, **scarcity of ultrapure water required for chip making**.

Initiatives for Semiconductors

- **Production linked incentive (PLI)** scheme for **semiconductors** and display manufacturing units
- **Design a Linked Incentive (DLI)** Scheme for **financial incentives and design infrastructure** support.
- India Semiconductor Mission
- **Chip-making initiative**
- **Scheme for setting up of Compound Semiconductors / Silicon Photonics / Sensors (including MEMS) Fabs / Discrete Semiconductors Fab and Semiconductor ATMP / OSAT facilities** in India

PM launches India's first Regional Rapid Transit System (RTS) called NaMo Bharat train

- The Namo Bharat train was launched on Sahibabad-Duhai stretch of **Delhi-Ghaziabad-Meerut RRTS Corridor**.
 - ⊕ RRTS is a new **rail-based, semi-high-speed, high-frequency** commuter transit system with a design speed of 180 Kmph for better connectivity across NCR.
 - ⊕ RRTS was **proposed by National Capital Region Planning Board**.
 - ◆ The board had identified **8 RRTS corridors** in its "**Functional Plan on Transport for NCR - 2032**".
- **National Capital Region Transport Corporation (NCRTC)** is mandated to implement RRTS.
 - ◆ NCRTC under **Ministry of Housing and Urban Affairs** is a **joint venture company of Government of India** and States of Delhi, Haryana, Rajasthan and U.P.
- In line with PM GatiShakti National Master Plan, RRTS network will have **extensive multi-modal integration with Railway stations, Metro stations, Bus services etc.**
- **Advantages**
 - ⊕ Promote **balanced sustainable growth** in NCR.
 - ⊕ **Travel time reduction** by 60-75%.
 - ⊕ **Decongesting traffic and reduction in pollution** (majority of energy requirement will be met through renewable sources).
 - ⊕ Unlike **metro** RRTS covers relatively **longer distance with fewer stops**.
 - ⊕ Unlike **conventional Railways**, RRTS will provide **reliable, high frequency, point to point regional travel along dedicated path way**.

Astronomers Detect Fast Radio Bursts (FRB) from a merger of galaxies that occurred 8 billion years ago

- Fast Radio Burst is a **bright and brief burst of electromagnetic radiation** seen in **radio-wave frequencies**, that usually **last thousandths of a second**.
 - ⊕ FRBs were first **discovered in 2007**.
 - ⊕ Until now, the **oldest-known such FRB** dated to **5 billion years ago**.
- Detected using **Australian Square Kilometre Array Pathfinder**, a radio telescope in Australia.
- **FRBs are common events** in the cosmos, however, as **FRBs lose energy when they reach Earth**, they are difficult to spot.
- As FRBs travel **through galaxies** and in between them, **they pass through hot gas**, which causes their **low-frequency radio waves to slow down** more than those at **higher frequencies**, a phenomenon known as **dispersion**.
 - ⊕ This allows scientists to **detect and measure 'matter'** between galaxies that are **currently invisible to us**.
- **Causes of FRBs are not entirely known, however:**
 - ⊕ **Stellar remnants**, such as **white dwarfs** (dense, hot, compact star remnants), **neutron stars** (formed by massive star collapse), and **colliding galaxies** are considered sources of FRBs.
- **Significance:** assists in exploring the **expansion of the Universe** and even **'weighs' the Universe**.

Dhordo village of Kutch (Gujarat) is awarded as one of the Best Tourism Villages by UN World Tourism Organization (UNWTO)

- Accolade by UNWTO reflects Dhordo's exemplary contribution to **sustainable and responsible tourism**.
 - ⊕ Nestled in the Great Rann of Kutch, Dhordo is famous for **hosting the annual Rann Utsav** (White Desert Festival).
 - ◆ Rann Utsav **celebrated every year** by Gujarat Tourism in winter is a **cultural extravaganza** that **showcases the region's traditional art, music, and crafts**.
 - ⊕ Dhordo is also **home to the Mutwa community from Sindh**, specialising in **Mutwa embroidery** (chain of stitches inset with mirrors, silver jewellery and leather embroidery)
- **About rural tourism**
 - ⊕ Any form of tourism that **showcases rural life, art, culture, and heritage** at rural locations can be termed rural tourism.
 - ⊕ It entails **agricultural tourism, cultural tourism, nature tourism, adventure and ecotourism**.
 - ⊕ **Significance**
 - ◆ Promotes **conservation of cultural and natural heritage**.
 - ◆ Stimulate **rural socio-economic development**.
 - ◆ **Reduces stress migration** to urban areas.
 - ⊕ **Challenges:** Poor **transportation** and other **infrastructure, lack of education, training, skills development etc.**
 - ⊕ **Initiatives:**
 - ◆ **National Strategy and Roadmap** for Development of Rural Tourism in India
 - ◆ **Best Tourism Villages Competition** to honour a village that best exemplifies a rural tourism destination



United Nations World Tourism Organisation



- 🔬 **Genesis:** It was **proposed in 1946** to replace Union of Official Tourist Propaganda Organizations (IUOTPO).
 - ◆ **Established in 1975** and became **specialized body of UN in 2003**.
- 📖 **About:** Acts as a **global forum for tourism policy** issues and a **source of tourism know-how**.
- 🚀 **Objectives:** It seeks to **promote tourism as a driver of economic growth**, inclusive development and **environmental sustainability**.
- 👥 **Members:** **159 Member States** (India 🇮🇳).
- 🏡 **Best Tourism Village initiative:** Launched in 2021 to honour villages that best exemplify rural tourism destinations.

Also in News

INS Imphal

- **Indian Navy** received INS Imphal, the **first warship with separate accommodation for women sailors**.
 - ⊕ INS Imphal is third **ship** (after INS Visakhapatnam and INS Mormugao) of **Project 15B Class of stealth guided missile destroyers**.
 - ⊕ It was built by **Mazagon Dock Shipbuilders Limited**.
 - ⊕ It is armed with **supersonic Surface-to-Surface 'Brahmos' missiles** and **'Barak-8' Medium Range Surface to Air Missiles**.
- **Project 15B** is a follow-on of the Kolkata class (Project 15A) destroyers commissioned in last decade.
 - ⊕ **Indigenous content in P15B Class Destroyers is 72%** (P15A had 59% and P15 had 42%).

Graphite

- **China imposes export curbs on graphite**.
- **China is the world's top graphite producer and exporter**.
 - ⊕ It refines over **90% of the world's graphite for Electric Vehicle battery anodes**
- **Graphite (plumbago or black lead)** is a naturally occurring form of **crystalline carbon**.
 - ⊕ **Types:**
 - ◆ **Natural-** High crystalline, Amorphous and Flake
 - ◆ **Synthetic:** produced from coke and pith
 - ⊕ **Features:**
 - ◆ one of the **common allotropes of carbon**.
 - ◆ **good conductor of heat and electricity**.
 - ⊕ **Applications:** used in **pencils, lubricants, polishes, batteries, cores of nuclear reactors etc.**



Vienna Convention on Diplomatic Relations 1961 (Vienna Convention)

- India reiterated that **seeking parity in mutual diplomatic presence** with Canada in accordance with the **Vienna Convention**.
- Vienna Convention provides a complete **framework for the establishment, maintenance and termination of diplomatic relations** between independent sovereign States.
 - ⊕ It **specifies functions privileges and immunities of diplomatic missions**, rules regulating appointments, etc.
 - ⊕ **Article 11.1** pertains to **size of international missions** within other countries.
- It was signed in **1961** and entered into force in **1964**.
- It has **60 signatories** including India and **193 parties**.



Pink Bollworm

- **Damage by pink bollworm (PBW)** to Bt Cotton worst in two decades
 - ⊕ Bt (*Bacillus thuringiensis*) cotton which incorporates genes from a soil bacterium code for proteins toxic to American bollworm.
- **Pink Bollworm (PBW)** Scientific Name: *Pectinophora gossypiella* (Saunders)
 - ⊕ Bollworm is any larvae of various moths.
- **Native To:** Possibly the eastern Indian Ocean region.
- **Impact:** Adults lay eggs on **cotton bolls**; **once hatched**, the larvae eat the seeds and damage the fibres of the cotton, **reducing the yield and quality**.



Lemru Elephant Reserves

- The request of the Chhattisgarh government to **de-notify coal mines falling under the Lemru Elephant Corridor** has been accepted by Ministry of Coal.
- Lemru is an elephant reserve established to **prevent human-animal conflict in the region**, with elephants moving into Chhattisgarh from Odisha and Jharkhand.
 - ⊕ The reserve is part of the **Hasdeo Aranya forests** situated in **Korba district** and is known as **lungs of Chhattisgarh**.
 - ◆ This forest is very diverse biozone that is also **rich in coal deposits**.



Indian Institute of Corporate Affairs (IICA)

- **IICA and Skill Council for Persons with Disability (SCPWD)** signed an **MoU for 'Job Coach for Inclusivity Programmes'**.
- **Aim:** equipping corporates in terms of **knowledge, skills, and competencies for building and managing a diverse workforce**.
- IICA is an **autonomous body** under the **Ministry of Corporate Affairs**.
 - ⊕ It **acts as a think-tank** and a **Centre of Excellence** to support the growth of the corporate sector in India through an **integrated and multi-disciplinary approach**.
 - ⊕ It was **registered as a society** in 2008 under **Societies Registration Act, 1860**



Software Technology Parks of India (STPI)

- **STPI** set up a state-of-the-art incubation facility of **Apiary Center of Entrepreneurship (CoE)** at STPI-Gurugram.
 - ⊕ Apiary is focused on **Blockchain Technology**.
- **Set up in 1991** STPI is an **autonomous society** under **Ministry of Electronics and Information Technology**.
 - ⊕ It is engaged in **promoting IT/ITES Industry, R&D, start-ups, product/IP creation** and establishing CoEs/Technology incubator in emerging technologies like IoT, Blockchain, AI, etc.
 - ⊕ It aims to **promote software exports** from the country and acts as **'single window'** in providing services to the software exporters.



Central Supervisory Board (CSB)

- CSB highlighted an **increase in Sex Ratio at Birth** from 904 in 2017-19 to **907 in 2018-20**.
- **About CSB**
 - ⊕ It is a **statutory body** constituted under **Pre-conception and Pre-natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994**.
 - ⊕ **Minister** in charge of the **Ministry of Family Welfare** is the **ex officio Chairman**.
 - ⊕ **Functions:** Advise central government on matters relating to **use of, sex selection techniques**, review and monitor implementation of the Act, etc.

Places in News



Zambia (Capital: Lusaka)

Indian Defence Secretary held a meeting with Permanent Secretary, Ministry of Defence, Zambia.

- **Political Boundaries**
 - ⊕ It has a land border **on the west with Angola**.
 - ⊕ To the southwest is the **thin projection of Namibian territory** known as the **Caprivi Strip**, at the **eastern end of which Zambia and three of its neighbours (Namibia, Botswana, and Zimbabwe)** appear to meet at a point - a **"quadripoint"**.
 - ⊕ **Mozambique to the southeast**, Malawi to the east, and Tanzania to the **northeast and DRC to the Northwest**.
- **Geographical Features**
 - ⊕ It is a **landlocked country in south-central Africa**.
 - ⊕ **situated on a high plateau** and takes its name from the Zambezi River.
 - ⊕ **Highest point:** Mafinga Central.
 - ⊕ **Longest River:** Kafue River (tributary of Zambezi river)

