

## DAILY CURRENT AFFAIRS (DCA)

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## SUPREME COURT JUDGEMENT ON CHILD PORNOGRAPHY

### Context

- The Supreme Court held that viewing in private, downloading, storing, possessing, distributing or displaying pornographic acts involving children, attract criminal liability under the **Protection of Children from Sexual Offences Act (POCSO), 2012** and the **Information Technology Act, 2000**.

### Background

- The Supreme Court verdict was based on an appeal filed by NGO, **Just Right for Children Alliance**, against a Madras High Court decision.
- The High Court had concluded that watching or downloading pornographic acts involving children in private domains was not a crime under the POCSO Act.

### Supreme Court ruling

- The Supreme Court urged the Parliament to amend the POCSO Act to substitute the term "child pornography" with "**Child Sexual Exploitation and Abuse Material**" or **CSEAM**.
  - The term child pornography can lead to a trivialisation of the crime, as pornography is often seen as a consensual act between adults.
- The court said that **Section 67B of the Information Technology (IT) Act** had penalized the use, transmission and publication of obscene materials, including child pornography.
  - It has also made browsing, creation, collection, online facilitation or enticement of children into any sexual act or conduct an offence.
- Section 15 of the POCSO Act** penalizes storage of child pornography with an intention to share or transmit it.

- The court evolved the principle of '**constructive possession**', which means a person was accountable if at any point of time he had an invariable degree of power and knowledge to control, manipulate, alter, modify or destroy the material.

### Actions taken by India to address the issue

- Cyber Crime Unit (CCU):** It handles cases under the Protection of Children from Sexual Offences (POCSO) Act and the Information Technology (IT) Act.
- Cyber Crime Prevention against Women and Children (CCPWC) Scheme:** The objective is to have an effective mechanism to handle cyber crimes against women and children in the country.
- National Commission for Protection of Child Rights (NCPCR):** It works with law enforcement agencies, conducts awareness campaigns, and intervenes in cases to ensure children's safety.
- Indian Cyber Crime Coordination Centre (I4C):** coordinates law enforcement efforts across the country to address cybercrime, including child pornography.
- Cyber Tipline:** It is the place to report child sexual exploitation and is operated by The National Center for Missing and Exploited Children (NCMEC).

### Concluding remarks

- The Supreme Court's ruling marks a transformative step in redefining how child sexual exploitation crimes are viewed and addressed in India.
- The ruling has sent a strong message that society must no longer trivialise or mischaracterise these heinous acts.
- The court's recommendations urge a comprehensive, multifaceted approach involving legislative changes, awareness regarding sex education in India, and support systems to protect children from exploitation and abuse.

Source: TH

## REPORT UNDER THE SCHEDULED CASTES AND SCHEDULED TRIBES (PREVENTION OF ATROCITIES) ACT

### Context

- A recent government report revealed that 98.91% of atrocities against Scheduled Tribes (STs) in 2022 were concentrated in 13 states.

<b>CASES &amp; VICTIMS</b>		
Cases registered under Sections 14 & 15 of POCSO		
<b>Year</b>	<b>Incidents</b>	<b>Victims</b>
2022	696	703
2021	536	540
2020	584	592
2019	1114	1117
2018	812	821

Source: NCRB reports; All India data

### Key Facts About the Report

- **Cases for SCs:** Of the total cases registered under the law for Scheduled Castes (SCs) in 2022, Uttar Pradesh accounted for 23.78%, followed by Rajasthan and Madhya Pradesh.
  - ♦ Other States with a significant number of cases of atrocities against SCs were Bihar with (13.16%), Odisha (6.93%), and Maharashtra (5.24%).
  - ♦ These six States accounted for nearly **81% of the total cases.**
- **Cases for STs:** The majority of cases of atrocities against STs were concentrated in 13 States.
  - ♦ Madhya Pradesh reported the highest number (30.61%), Rajasthan had the second highest number of cases (25.66%) while Odisha (7.94%).
  - ♦ Other States with a significant number of cases included Maharashtra (7.10%) and Andhra Pradesh (5.13%).
- **Declining Conviction Rates:** In 2022, the conviction rate under the Act dropped to **32.4% from 39.2% in 2020.**
- **Lack of Special Courts:** The report pointed out the inadequate number of special courts set up to handle cases under the law.
  - ♦ Of 498 districts in 14 States, only 194 had established special courts to expedite trials in these cases.
- **Special police stations for registration of complaints of offenses** against SCs and STs have been set up by five states – Bihar, Chhattisgarh, Jharkhand, Kerala and Madhya Pradesh.

### Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act

- The SC and STs (Prevention of Atrocities) Act, 1989, is a key legislation in India aimed at **preventing atrocities and discrimination against SC and ST.**
- **Definition of Atrocities:** The Act defines specific acts considered atrocities, such as physical assault, coercion, and economic exploitation.
- **Cognizable offence:** All offences listed in the Act are cognizable.
  - ♦ The police can arrest the offender without a warrant and start an investigation into the case without taking any orders from the court.
- **Punishments:** The Act prescribes both minimum as well as maximum punishment.

- ♦ The minimum in most cases is six months imprisonment while the maximum is five years sentence and with a fine.
- ♦ In some cases, the minimum is enhanced to one year while the maximum goes up to life imprisonment or even death sentence.
- **Fast Track Courts:** It mandates the establishment of special courts for the speedy trial of offenses.
- **No Anticipatory Bail:** Provisions that prevent anticipatory bail for accused persons to ensure that the complaints are taken seriously.
- **Implementation:** State governments are tasked with ensuring the implementation of the Act, including the appointment of special public prosecutors.

### Constitutional Provisions

- **Article 15:** Prohibits discrimination on grounds of religion, race, caste, sex, or place of birth.
- **Article 17:** Abolishes “untouchability” and forbids its practice in any form.
- **Article 46:** Promotes the educational and economic interests of SCs and STs and protects them from social injustice.
- **Article 338:** Establishes the National Commission for Scheduled Castes to investigate and monitor the implementation of safeguards for SCs.
- **Article 339:** Empowers the President to intervene in the administration of Scheduled Areas and Scheduled Tribes for their welfare.

### Need for the Safeguards to SC and ST in India

- **Historical Injustice:** SCs and STs have faced centuries of systemic oppression and discrimination, leading to social and economic inequalities.
  - ♦ **Untouchability Practices:** Despite its abolition, practices associated with untouchability persist in some areas, necessitating legal protections.
- **Atrocities and Violence:** SCs and STs are disproportionately affected by violence and atrocities, including physical assault, sexual violence, and economic exploitation.
- **Social Stigma:** They often face social ostracism, making them vulnerable to further violence and discrimination.
- **Political Marginalization:** Historically, SCs and STs have had limited representation in political and administrative spheres, necessitating affirmative action policies.

- **Fostering Inclusion:** Safeguards are vital for promoting social harmony and reducing caste-based discrimination, fostering an inclusive society.

### Challenges in Implementation of the Act

- **Lack of Awareness:** Many SC and ST individuals are unaware of their rights under the Act, leading to underreporting of atrocities.
- **Fear of Retaliation:** Victims fear backlash from perpetrators or their communities, deterring them from filing complaints.
- **Social Isolation:** Reporting atrocities can lead to social ostracism, further discouraging victims from seeking justice.
- **Corruption:** Corruption within law enforcement result in biased investigations and inadequate action against perpetrators.
- **Inadequate Infrastructure:** Many states lack the necessary infrastructure and resources to effectively implement the Act, such as special courts and trained personnel.
- **Manipulation of Provisions:** There are instances where the Act is misused against individuals from non-SC/ST communities, leading to resentment and calls for repeal.
- **Cultural Norms:** Deep-rooted caste prejudices and societal norms lead to resistance against the Act, complicating enforcement efforts.

### Conclusion

- The way forward for the inclusion of Scheduled Castes and Scheduled Tribes requires a collaborative effort involving government, civil society, and the communities themselves.
- By focusing on education, economic empowerment, legal protections, and social awareness, India can build a more equitable society that respects and uplifts SC and ST communities.

Source: TH

## INDO-PACIFIC ECONOMIC FRAMEWORK FOR PROSPERITY (IPEF) MEETING

### Context

- The Indian delegation attended the first in-Person meeting of the **Supply Chain Council** of the Indo-Pacific Economic Forum (IPEF) for Prosperity

held in Washington DC followed by the Crisis Response Network meeting.

### Key highlights

- The Council established three Action Plan Teams pertaining to three sectors, namely **Semiconductor; Critical Minerals with a focus on batteries; and Chemicals.**
- Also two sub-committees were established for cross cutting issues.
  - ♦ **The Sub-committee on Logistics and Movement of Goods** would facilitate efforts to improve logistics services and logistics infrastructure in the IPEF region.
  - ♦ **The Sub-committee on Data and Analytics** would build upon the work already undertaken by IPEF countries to exchange analytical approaches to supply chain exposures and risk.

### Indo-Pacific Economic Framework for Prosperity (IPEF)

- **IPEF was launched in 2022 at Tokyo, Japan**, comprising **14 countries** – Australia, Brunei, Fiji, India, Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, Philippines, Singapore, Thailand, Vietnam and USA.
- **The IPEF seeks** to strengthen economic engagement and cooperation among partner countries with the goal of advancing growth, economic stability and prosperity in the region.
- The IPEF block together, accounts for **40 percent** of the world's economic output and **28 percent** of trade.
- The framework is structured around **four pillars** relating to;
  - ♦ Trade (Pillar I);
  - ♦ Supply Chain Resilience (Pillar II);
  - ♦ Clean Economy (Pillar III); and
  - ♦ Fair Economy (Pillar IV).

### Supply Chain Resilience Agreement

- **Supply Chain Resilience Agreement (Pillar II Agreement)** under IPEF came into effect in 2024 to strengthen supply chains through economic engagement among partner countries.
- Under this Agreement, **three institutional bodies** have been created namely,
  - ♦ Supply Chain Council (SCC),
  - ♦ Crisis Response Network (CRN) and
  - ♦ The Labour Rights Advisory Board (LRAB).

### Way Ahead

- The paradigm shift due to growth in **technological advancements and demand for clean energy solutions** has brought to the forefront the critical importance of securing a **reliable supply of critical minerals**.
- One of the key challenges lies in the supply risk on account of its concentration and global market dynamics and, which can result in **price volatility and uncertainty** leading to supply disruptions.
- Here India has an opportunity to consider members as alternative sources for its raw materials requirements. This could **reduce India's overdependence on China** for these inputs.

Source: PIB

## SIX YEARS OF AYUSHMAN BHARAT PM-JAY

### In News

- Over six years, PM-JAY has transformed healthcare by offering essential coverage to millions and reducing financial burdens from medical expenses.

### About AB PM-JAY

- The Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY) was launched on September 23, 2018.
- The scheme is a key component of India's commitment to achieving Universal Health Coverage (UHC).
- **Emergence:** PM-JAY is part of the broader Ayushman Bharat initiative, which was established under the National Health Policy 2017.
- **Target Population:** The scheme aims to cover over 12 crore families, translating to nearly 55 crore individuals.
  - ♦ The scheme prioritizes the poorest 40% of the population, determined by the Socio-Economic Caste Census 2011.
- **Coverage and Benefits:** PM-JAY is recognized as the largest health assurance scheme globally.
  - ♦ It provides health coverage up to 5 lakh per family annually for secondary and tertiary care hospitalization.
  - ♦ The scheme focuses on providing healthcare to India's most vulnerable sections of the population.

### Features

- **Cashless Access to Healthcare:** Beneficiaries enjoy cashless healthcare services at the point of care, eliminating the need for out-of-pocket payments during treatment.
- **Mitigating Catastrophic Health Expenditure:** By covering significant medical costs, PM-JAY helps prevent over six crore Indians from falling into poverty yearly due to healthcare expenses.
- **Pre- and Post-Hospitalization Coverage:** The scheme covers up to 3 days of pre-hospitalization and 15 days of post-hospitalization expenses, including diagnostics and medications.
- **No Family Size or Age Restrictions:** PM-JAY imposes no restrictions on family size, age, or gender, ensuring inclusivity for all.
- **Coverage from Day One:** All pre-existing medical conditions are covered from the very first day of enrolment, ensuring timely treatment.
- **Comprehensive Service Package:** AB PM-JAY offers comprehensive coverage across 1,949 medical procedures spanning 27 medical specialties, including General Medicine, Surgery, Oncology, and Cardiology. Beneficiaries receive hospital services such as free drugs (including 15 days of post-discharge medication), diagnostics (up to 3 days before admission), food, and lodging at no cost.

### Expansion of PM-JAY:

- Recently, the Union Cabinet approved the expansion of the **Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY)**.
- The expansion offers **comprehensive health insurance** to senior citizens aged **70 and above**.
- The scheme provides **free health coverage up to ₹5 lakh per family**, irrespective of income.

### Achievements

- Over the past six years, PM-JAY has aimed to address deep-rooted health inequities in India.
- PM-JAY represents a shift from segmented healthcare services to an integrated, need-based approach.
  - ♦ It aligns with India's commitment to the Sustainable Development Goals (SDGs).
- The scheme ensures that "no one is left behind", **supporting health equity for all**.
- As of September 9, 2024, over **35.4** crore Ayushman cards have been issued, improving healthcare accessibility for millions.

- The scheme operates in **33** States and Union Territories, excluding NCT Delhi, West Bengal, and Odisha.
- **49% of Ayushman cards** have been issued to **women**. **30,529 hospitals** are empanelled, including 17,063 public and 13,466 private hospitals, offering beneficiaries a wide range of healthcare options.
- The Ayushman Bharat program has resulted in a **21% reduction in out-of-pocket healthcare** expenses.
- **Financial Relief:** This financial relief enables families to focus more on their well-being without the burden of financial stress.
- **Project Elephant:** Project Elephant (PE) was launched by the Government of India in the year **1992** as a Centrally Sponsored Scheme with the following objectives:
  - ♦ To protect elephants, their habitat and corridors
  - ♦ To address issues of man-elephant conflict
  - ♦ Welfare of domesticated elephants
- **Development of Wildlife Habitat:** It includes Project Dolphin and Project Lion.
  - ♦ The Project Dolphin is proposed to be supported by provisioning of **Remotely Operated Vehicles (ROVs) and passive acoustic monitoring devices** for enumeration of dolphins as well as their habitat

Source : PIB

## WILDLIFE HABITATS DEVELOPMENT SCHEME

### Context

- The Union Cabinet has approved the Integrated Development of Wildlife Habitats scheme for the 15th Finance Commission cycle for an overall **outlay of ₹2,602.98** crore.

### Integrated Development of Wildlife Habitats (IDWH)

- IDWH is an on-going **Centrally Sponsored Scheme** which has been made operational by adding more components and activities to the erstwhile Scheme - "Assistance for the Development of National Parks and Sanctuaries".
- The scheme has **following components;**
  - ♦ Support to Protected Areas (National Parks, Wildlife Sanctuaries, Conservation Reserves and Community Reserves)
  - ♦ Protection of Wildlife Outside Protected Areas
  - ♦ Recovery programmes for saving critically endangered species and habitats
- The scheme envisages to **boost technological interventions** in different thematic areas in tiger and wildlife bearing forests.

### Different Scheme under IDWH

- **Project Tiger:** It was launched by the Central government in **1973**, in a bid to promote conservation of the tiger.
  - ♦ Project Tiger currently uses technology such as the **M-STriPES (Monitoring System for Tigers, Intensive Protection and Ecological Status)** application for day-to-day management practices.

### Significance of the scheme

- The scheme has a livelihood generation of more than **50 lakh man days** through direct engagement in addition to indirect employment through **eco-tourism and ancillary activities**.
- **55 tiger reserves, 33 elephant reserves and 718 protected areas** and their zones are going to benefit under it.
  - ♦ In addition, the cause of keystone species occupying these landscapes, especially the tiger, the elephant, the cheetah, the snow leopard and the lion, which act as an indicator of these ecosystems will be furthered.

Source: PIB

## FIFTH ANNIVERSARY OF COALITION FOR DISASTER RESILIENT INFRASTRUCTURE (CDRI)

### In Context

- On this occasion, the Coalition for Disaster Resilient Infrastructure (CDRI) has launched a \$2.5 million initiative to improve urban infrastructure resilience in 30 low-and middle-income countries and Small Island Developing States.
  - ♦ The funding will support five cities facing challenges like extreme heat, flooding, and water scarcity, focusing on energy, transportation, social infrastructure, and **water systems**.

### About CDRI

- **Launched:** At the UN Climate Action Summit in 2019 by India.
- **Nature:** A global partnership involving nations, UN agencies, multilateral development banks, and the private sector.

- **Objective:** To promote the resilience of infrastructure systems against climate and disaster risks, ensuring sustainable development.
- **Membership:** Comprises 40 countries and 7 organizations, with its secretariat located in New Delhi, India.
- **Functions:** CDRI promotes rapid development of resilient infrastructure to respond to the Sustainable Development Goals' imperatives of expanding universal access to basic services, enabling prosperity and decent work.
- **Reports Published:** Global Infrastructure Resilience Report.

### Importance of CDRI

- Complementing the International Solar Alliance (ISA)
- The leadership of Indian for climate Action and Disaster Resilience at the global level.
- Support India's resilient missions abroad.
- Provide opportunities for Indian infrastructure & technology firms to expand services abroad.

### Major Initiatives Taken By CDRI

- **Infrastructure for Resilient Island States (IRIS):** Aimed at promoting resilient, sustainable, and inclusive infrastructure in Small Island Developing States (SIDS).
- **DRI Connect Platform:** A collaborative platform for knowledge exchange and learning.
- Facilitates networking and sharing of best practices among stakeholders in infrastructure resilience.
- **International Conference on Disaster Resilient Infrastructure (ICDRI):** An annual global conference that brings together experts, policymakers, and stakeholders.
- **Infrastructure Resilience Accelerator Fund (IRAF):** Established with support from UNDP and UNDRR. It provides financial support for global initiatives aimed at enhancing the disaster resilience of infrastructure systems.

### Need for Disaster Resilient Infrastructure

- The **Sendai Framework for Disaster Risk Reduction (SFDRR)** highlights the role of improved disaster resilience of infrastructure as a cornerstone for sustainable development.
- The SFDRR includes four specific targets related to loss reduction:

- ♦ Reduce global disaster mortality.
- ♦ Reduce the number of affected people.
- ♦ Reduce direct disaster economic loss.
- ♦ Reduce disaster damage to critical infrastructure.
- ♦ Target (4) on infrastructure is an important prerequisite to achieving the other loss reduction targets set out in the framework.

Source: ET

## TRANSIT ORIENTED DEVELOPMENT (TOD)

### Context

- Indian cities are on the brink of a **transportation revolution**, with a projected expenditure of 3 trillion (between 2022–2027) set to be spent on approved metro rail projects.
  - ♦ These investments will not only enhance **urban mobility but can also unlock vast economic potential**.

### About

- Studies reveal that investment in public transportation can generate **thousands of jobs and deliver economic returns 5-7 times greater** than the initial outlay.
- To leverage investments in mass transit and maximise the economic benefits as well as improve quality of life in cities, the Government of India approved the **National Transit Oriented Development (TOD) Policy and Metro Rail Policy in 2017**.
  - ♦ 27 Indian cities are building metro rail systems, and many others are building other forms of rail- and bus-based mass rapid transit systems.

### Transit Oriented Development (TOD)

- It means **integrated urban places designed to bring people, activities, buildings, and public space together**, with easy walking and cycling connection between them and **near-excellent transit service to the rest of the city**.
- It means **inclusive access for all** to local and citywide opportunities and resources by the most efficient and healthful combination of mobility modes, at the lowest financial and environmental cost.
- Inclusive TOD is a necessary foundation for long-term sustainability, equity, shared prosperity, and civil peace in cities.

**Benefits of TOD:**

- **Reduced Traffic Congestion:** By encouraging the use of public transit, TOD can help alleviate road congestion.
- **Economic Development:** Increases property values and stimulates local economies through increased foot traffic and business opportunities.
- **Community Connectivity:** Fosters a sense of community by integrating various uses and encouraging social interactions.
- **Healthier Lifestyles:** Promotes active transportation options like walking and biking, which can improve public health outcomes.

**Need for TOD**

- The **longer work-home commutes**, and the **congestion and pollution** arising from greater private vehicular use, are hampering access to jobs and labour markets, productivity and liveability.
  - ♦ **Bengaluru**, is among the world's most traffic-congested cities, with the social cost estimated to be 5% of the city's GDP as per 2018 figures.
- **Improving accessibility to jobs**, through safe and efficient transport modes, can significantly **enhance workforce productivity and participation**.
- **Clustering job growth** near transit boosts innovation, productivity, and competitiveness — far more than dispersed job growth.
- It also spurs **local economic and real estate development**, leading to increased revenues for public agencies.

**National Transit Oriented Development (TOD) Policy**

- Adopted by the Union ministry of housing and urban affairs (MoHUA) in **2017**, the TOD Policy provides for **densification of areas around transit corridors** by allowing **higher built-up area for residential and commercial developments**.
- The idea is to **promote the use of public transport**, encourage walking and cycling, and develop compact walkable communities.
- The **influence zone plan**, which is a detailed plan of the area around a transit station, has to be **prepared by the local authorities**.
- **States** can formulate their own TOD policy since land is a state subject or can adopt the Centre's policy.

**Way Ahead**

- **High-functioning global cities like Hong-Kong** have **57% of jobs** within 500 m of a transit station, 84% within 1 km, and 96% within 2 km.
  - ♦ The city has one of the **highest levels of transit use** and one of the **lowest levels of car ownership**.
  - ♦ This has enabled its Gross Value Added per capita **to increase by 50%**, while fuel consumption and carbon emissions per capita **decreased by 10%**.
- Apart from conventional funding sources, the government can explore **public-private partnerships**.
  - ♦ The private sector (businesses, developers, financing institutions) can play a significant role in directing commercial and industrial investments, near transit stations.
- Transport infrastructure is a **prime driver of economic activity** and a developing country like India will continue to invest in it.
  - ♦ This must encompass the **upgradation of public infrastructure**, and institutionalising coordinated action to shape inclusive, low carbon, compact and connected growth.

Source: TH

**NEWS IN SHORT****INFRASOUND****In News**

- The **Comprehensive Test Ban Treaty Organization (CTBTO)** is hosting a workshop for scientists focused on **infrasound research** and its operational capabilities in global and regional networks.

**What is Infrasound?**

- Infrasound refers to **low-frequency sound waves**, which are the opposite of ultrasound (high-frequency sound waves).
- These waves can be generated by natural phenomena like meteors, storms, auroras, volcanoes, earthquakes, and nuclear explosions.
- **Historical Observation:** The first recorded infrasound observation occurred after the 1883 Krakatoa volcano eruption, where the waves circled the globe and caused widespread damage.



- **Applications:** Infrasound can be used to check the structural health of buildings, dams, bridges, and aerospace applications like rocket stress detection and aircraft instability.
  - ♦ It is also used in mining to check mine shaft integrity and for wildlife tracking, such as monitoring whale movements
  - ♦ Infrasonic waves cause minute changes in atmospheric pressure, which can be measured by microbarometers.
  - ♦ These waves travel long distances without losing energy, making them useful for detecting distant nuclear explosions.
- **Health Concerns:** There are concerns about unknown effects of infrasound on human health, though this remains a topic of ongoing debate.

#### About CTBTO's Mandate:

- The CTBTO's main goal is to get more countries, including India, to sign the **Comprehensive Nuclear-Test-Ban Treaty (CTBT)**.
- The organization shares its monitoring technologies, including infrasound, with industries.
- The CTBTO's International Monitoring System (IMS) is building the only global infrasound network, with 60 array stations planned across 35 countries.
  - ♦ Each array consists of several elements, a meteorological station, a processing facility, and a communication system for data transmission.
- The CTBTO workshop aims to enhance understanding of infrasound, with the goal of making it as common in usage as ultrasound.

Source : BL

## LEGACY WASTE MANAGEMENT PROJECT OF THE SWACHH BHARAT MISSION 2.0

#### In News

- The legacy waste management project of the Swachh Bharat Mission 2.0 has been slow to start, with only 470 out of 2,424 dumpsites fully remediated, reclaiming 16% of the area three years since its launch.

#### Legacy Waste Dumpsites:

- Legacy waste dumpsites contain solid waste stored for years in an unscientific and uncontrolled manner.

#### About the Mission

- The Swachh Bharat Mission was launched on October 2, 2014, with phase 2.0 starting on October 1, 2021, aimed at achieving "Garbage-Free Status" by October 1, 2026.
- **Goals of Phase 2.0:** The mission focuses on 100% source segregation, door-to-door collection, scientific waste management, and conversion of dumpsites into green zones.
- **Financial Allocation:** An action plan with 3,226 crore in Central Share (CS) assistance has been approved for remediation, and an advisory has been issued for landfill reclamation.
- **State Performance:** Tamil Nadu has reclaimed the most area (837 acres, 42%).
  - ♦ Gujarat is the top-performing state, reclaiming 75% of its landfills (698 out of 938 acres).

#### Do you know ?

- **Solid Waste Generation:** Municipal solid waste generation in India is estimated at 1,50,000 tonnes per day, according to the State of India's Environment 2023 report

Source : TH

## NAGAR VAN YOJANA (NVY)

#### Context

- The Ministry of Environment, Forest and Climate Change has achieved **100-Day Target of 100 Nagar Vans**.

#### About

- The scheme, **Nagar Van Yojana (NVY)** was launched in **2020**, for creation of **Nagar Vans in urban areas**, which promotes urban forestry by involving local communities, NGOs, educational institutions, local bodies, etc.
- **The salient features of Nagar Van Yojana are:**
  - ♦ Creating green space and aesthetic environment in an urban set up.
  - ♦ Creating awareness about plants and biodiversity and developing environment stewardship.
  - ♦ Facilitating in-situ conservation of important flora of the region.
  - ♦ Contributing to environmental improvement of cities by pollution mitigation, providing cleaner air, noise reduction, water harvesting and reduction of heat islands effect.
  - ♦ Extending health benefits to residents of the city and

- ◆ Helping cities become climate resilient.
- The scheme provides financial assistance of **Rs. 4 lakh per hectare** for the creation and maintenance of these urban forests.
- Nagar Van areas range from a **minimum of 10 ha to 50 ha**.
- The scheme covers all cities with **Municipal Corporations, Municipalities and Urban Local Bodies (ULBs)**.
- Presently, the Nagar Van Yojana aims to develop **1000 Nagar Vans by the year 2027** with the financial support of **National Fund of National Compensatory Afforestation Management and Planning Authority (National CAMPA)**.

Source: PIB

## INDIAN ARMY INDUCTS ROBOTIC MULES

### Context

- The Indian Army has inducted 100 robotic mules (**Multi-Utility Legged Equipment**) in forward areas.

### About

- The **four-legged** robotic mules have a sleek design and are equipped with **thermal cameras and other sensors**, which enable them to carry out surveillance.



- They can climb stairs, steep hills and other hurdles and can operate in extreme temperatures,

ranging from **-40 to +55 degrees Celsius** and carry a payload of **15kg**.

- They can also be **integrated with small arms**, and can engage with an enemy without putting a human life at risk, if needed.

Source: TH

## NANOZYMES

### Context

- A CSIR-CLRI study has shown that **nanozymes can ensure collagen's integrity and enhance resistance to enzymatic degradation**.
  - ◆ The study reveals that the MnN nanozyme confers remarkable resistance to collagenase, an enzyme that typically degrades collagen.

### About

- **Enzymes** are biological catalysts that accelerate chemical reactions in living organisms.
  - ◆ They are typically **proteins**, although some RNA molecules can also function as enzymes (these are known as ribozymes).
  - ◆ Enzymes play a crucial role in various **biological processes**, including digestion, metabolism, DNA replication, and cellular signaling.
- **Nanozymes** are the **nanomaterials** that function like enzymes.
  - ◆ They offer several advantages over natural enzymes, including **enhanced stability, broader substrate specificity, and ease of production**.
- **Applications:** Used in biosensors, drug delivery, and as diagnostic tools.
  - ◆ Potential for bioremediation and pollutant degradation.
  - ◆ Applications in catalysis for chemical synthesis and food processing.

Source: BL

