

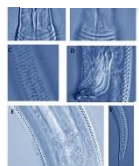
GOVERNMENT e MARKETPLACE



The Government e Marketplace (GeM) has achieved a cumulative Gross Merchandise Value (GMV) of ₹18.4 lakh crore, including crossing ₹5 lakh crore GMV in the financial year 2025–26.

- It is India's **national public procurement portal** launched in **2016** by the **Ministry of Commerce & Industry**.
- It enhances **transparency, efficiency and inclusivity** in procurement.
- It is the portal for procurement of goods and services for all **Central Government and State Government Ministries**, Departments, Public Sector Units (PSUs) and affiliated.
- **Features**
- It is a **fully digital, cashless and system-driven platform** that offers an end-to-end solution for all government buyers and sellers.
- It uses **AI-powered tools and a multilingual Learning Management System (LMS)** to facilitate access to public procurement.
- It also features **voice-enabled navigation** and region-specific training modules that support onboarding and transactions for sellers, including those in remote and underserved areas.
- **Objectives of GeM Portal:**
 - To **increase efficiency**, transparency and speed in public procurement
 - To **provide multiple modes of procurement** like direct purchase; bidding with reverse e-auction; e-bidding and direct reverse auction.
 - To make ministries/ government departments to mandatorily procure goods and services from the portal
 - To **enable efficient price discovery**; economies of scale and dissemination of best practices

NEW NEMATODE SPECIES



New Nematode Species

Recently, researchers from the Zoological Survey of India (ZSI) have identified two new species of free-living marine nematodes off the coast of Tamil Nadu and named them as *Corononema dhriti* and *Epacanthion indica*.

About *Corononema dhriti*

- It is a **free-living marine nematode** found off the coast of Tamil Nadu.
- It is only the **fourth known species of this genus globally**.
- It was previously documented only in **Australia, Thailand, and Vietnam**.

About *Epacanthion indica*:

- It stands out due to its complex anatomy.
- Unlike many nematodes that feed on microbes, **indica possesses specialized mandibles** and “teeth,” positioning it as a microscopic predator within benthic food web.

Significance of marine nematodes

- **Nutrient Cycling:** Breaking down organic waste and recycling essential nutrients back into the ocean.
- **Sediment Health:** Maintaining the **stability and productivity of coastal sediments**.
- **Bio-Indicators:** Serving as vital markers for environmental health and climate change impact.

What are Nematodes?

- These are any worm of the **phylum Nematoda**.
- They occur as parasites in animals and plants or as free-living forms in soil, fresh water, and marine environments.
- Nematodes are **bilaterally symmetrical**, elongate, and usually tapered at both ends.
- Some species **possess a pseudocoel**, a fluid-filled body cavity between the digestive tract and the body wall.
- **Distribution:** They have been reported from every continent on earth and occur in deserts, swamps, the oceans, the tropics and Antarctica.

UNDERSTANDING INDIA'S INTERNET CENSORSHIP REGIME

- Internet censorship refers to the control or suppression of what can be accessed, published, or viewed on the internet.
- In India, it sits at the intersection of free speech, national security, public order, and digital governance.
- **Constitutional Basis**
 - Article 19(1)(a) guarantees freedom of speech and expression, which courts have extended to online speech.
 - Article 19(2) permits reasonable restrictions on grounds of sovereignty, security of state, public order, decency, and morality.
 - Internet shutdown or censorship must pass the test of reasonableness and proportionality.

Legal Framework

- **Information Technology Act, 2000**
 - **Section 69A** — Empowers the Central Government to block websites/content in the interest of sovereignty, security, public order, etc.
 - **Section 66A (now struck down)** — Criminalised "offensive" online speech; declared unconstitutional in *Shreya Singhal v. Union of India* (2015).
 - **Section 79** — Safe harbour provision for intermediaries.
- **IT (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021**
 - Mandates traceability of message originators (threatens end-to-end encryption).
 - Requires significant social media intermediaries to appoint Grievance Officers.
 - Controversial for placing heavy compliance burdens on platforms.

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- **Telecom Act, 2023**
 - Replaces the Telegraph Act; consolidates powers related to telecom suspension, including internet services.
- **Types of Censorship Practiced in India**
 - **Website Blocking** — Blocking of URLs/domains by ISPs on government orders (e.g., pornographic sites, piracy sites, separatist content).
 - **Internet Shutdowns** — Suspension of mobile/broadband internet in specific regions during unrest (e.g., Jammu & Kashmir, Manipur).
 - **Social Media Takedowns** — Government directives to platforms to remove specific posts, accounts, or content.
 - **App Bans** — Banning of Chinese apps (e.g., TikTok, PUBG Mobile) under Section 69A citing national security.

What the Data Shows: Inconsistent and Opaque Website Blocking

- **Scale of the Study** - Analysis of 294 million domains across six ISPs in 2025 found 43,083 blocked domains.
- **Lack of Uniform Blocking** - Only 1,414 domains were blocked by all six ISPs. ISPs do not block the same websites despite receiving similar orders.
- **Variation by Content Type** - Majority of blocked sites include: Piracy, peer-to-peer sharing, pornography, and gambling. Blocking is inconsistent across ISPs for these categories.
- **Higher Consistency in Sensitive Cases** - Domains related to terrorism and militancy show higher blocking consistency. Some cases (e.g., Weibo, The Kashmir Walla) show uniform enforcement.
- **Arbitrary and Uneven Implementation** - ISPs engage in arbitrary blocking practices. Lack of standard guidelines leads to a haphazard blocking system.
- **Issue of Opacity** - The blocking system is non-transparent. There is a need for disclosure of blocked domains, except in sensitive cases.

CBSE AI CURRICULUM AND STUDENT PREPAREDNESS

- On 1 April 2026, the government launched a CBSE curriculum on Computational Thinking (CT) and AI for Classes 3–8.
- The aim is to build skills like logical reasoning, problem-solving, and pattern recognition, and introduce students to AI in daily life.
- The programme will begin from the 2026–27 academic session and is seen as a step toward future-ready education.
- While the initiative is ambitious and welcome, its success depends on proper implementation and sequencing.

The Missing Foundation: LSRW Skills in AI Learning

- **Importance of LSRW Skills** - Listening, Speaking, Reading, Writing (LSRW) form the core of meaningful learning. They are the cognitive foundation for understanding, processing, and expressing ideas across all subjects, including AI.
- **CT Curriculum Built on Language** - Computational Thinking (CT) is integrated across subjects, not a standalone discipline. It is delivered through language, requiring students to read, interpret, and respond to text.
- **Learning Activities Depend on Comprehension** - Curriculum includes puzzles, pattern exercises, and problem-solving tasks embedded in textbooks. Students must interpret texts and analyse information to complete these tasks.
- **Assessment Requirements** - Evaluations involve: Written tests with CT questions; Group activities; Teacher observations. All require basic reading and comprehension skills.

A Promise and a Deadline: Literacy Goals vs Reality

- **NIPUN Bharat Mission** - Launched in 2021 to ensure foundational literacy and numeracy by Grade 3. Target year set as 2026–27.
- **Current Status of Learning Levels** - ASER 2024 shows improvement since 2022. However, more than half of Class 5 students still cannot read a Class 2-level text.

- **Gap Between Target and Achievement** - The literacy goal remains incomplete as of the latest data. Foundational learning levels are still below expectations.
- **Overlap with CT Curriculum Launch** - The CT curriculum is introduced in the same year the literacy target was to be achieved. This creates a mismatch between policy goals and ground reality.

The Unfulfilled Parallel: LSRW and CT

- **Foundational Priority of LSRW** - Foundational literacy and numeracy were identified as the highest priority under NEP 2020. NIPUN Bharat was launched to achieve this goal.
- **Gap Between Policy and Outcomes** - Despite policy focus, LSRW has not been achieved at scale. Data shows that foundational learning gaps still persist.
- **CT as the New Priority** - Computational Thinking (CT) is now being promoted as a key educational priority. The curriculum is: Well-designed and ambitious; Developed by leading academic institutions; Based on activity-based and ethical approaches.

The Sequencing Question: Literacy Before AI

- **Global Experience** - Countries like Finland, Singapore, and South Korea introduced AI education after achieving strong foundational literacy. Curriculum reforms followed literacy, not preceded it.
- **India's Current Position** - India has institutional momentum with initiatives like NIPUN Bharat. ASER 2024 shows improvement in reading levels, though gaps remain.
- **Need for Careful Sequencing** - The issue is not whether to introduce CT and AI, but whether students are ready. Foundational literacy must support the rollout.
- **Ground Reality in Classrooms** - Students in Class 3 face CT tasks alongside existing reading gaps. The effectiveness of the curriculum depends on the child's readiness.

Conclusion

A curriculum's success depends on learning foundations. Addressing CT without fixing literacy gaps does not achieve true transformation.

CLIMATE CHANGE AS A PUBLIC HEALTH EMERGENCY

Expanding Disease Risk Due to Climate Change

- **Changing Seasonal Patterns**
 - Shifts in temperature and rainfall are increasing infections, allergies, and vector-borne diseases. Longer pollen seasons and altered cycles are expanding disease timelines and spread.
- **Wider Geographic Spread**
 - Diseases are reaching new regions where populations lack immunity.
 - Health systems in these areas are often unprepared to handle outbreaks.
- **Rise in Mosquito-Borne Diseases**
 - Warmer conditions are making new regions suitable for mosquito breeding.
 - In Delhi-NCR, dengue cases now peak later (November instead of September) due to prolonged favourable conditions.
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Climate Change Threats to Human Health

- **Rising Air Pollution and Emissions** - Higher temperatures increase air conditioning use, leading to more greenhouse gas emissions.
- **Impact on Respiratory Health** - Fine particles penetrate deep into the lungs, causing: Inflammation and reduced lung function; Worsening of asthma and COPD.
- **Cardiovascular and Kidney Effects** - PM2.5 damages blood vessels, increasing risks of Hypertension, heart attack, and stroke. Long-term exposure also harms kidneys, leading to reduced filtration and chronic kidney disease.
- **Impact on Infant Health** - Extreme heat and pollution are linked to: Preterm births; Low birth weight.

- **Heat Stress and Feedback Loop** - Greenhouse gases trap heat, intensifying warming. Heat stress forces the heart to work harder, increasing cardiovascular strain and related illnesses.

Impact of Climate Change on Food Security and Health

- **Disruption of Agriculture and Food Supply** - Extreme weather and unseasonal rains disrupt crop cycles and reduce agricultural productivity. This leads to food shortages and rising prices.
- **Declining Nutritional Quality** - Reduced crop quality and higher costs create: Micronutrient deficiencies; Chronic malnutrition, especially among children.
- **Impact on Dairy and Nutrition** - Heat stress reduces milk production in cattle. This affects infant and child nutrition.
- **Health Consequences** - Food insecurity leads to: Weakened immunity; Increased disease vulnerability, particularly among children and the elderly.

Climate Change as a Present Health Crisis

- Climate change is no longer a distant threat but a current public health issue in India.
- It is a multifaceted challenge, and recognising it as a medical emergency is essential for urgent action.

MISSION MITRA



Recently, the Indian Space Research Organisation (ISRO) launched the Mission MITRA in Ladakh to test mental, physical strength of astronauts.

- The Mission MITRA (Mapping of Interoperable Traits and Response Assessment) is a first-of-its-kind team behavioral study designed by ISRO & IAF-Institute of Aerospace Medicine.
- **Objective:** To examine the physiological, psychological, and operational dynamics of Crew and ground teams functioning in a high-altitude environment.
- It is being conducted in the rugged, high-altitude terrain of Leh, Ladakh.

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- Ladakh is known for its freezing temperatures, low oxygen levels and isolation, Ladakh is an ideal terrestrial **analogue for space-like conditions**.
- The mission involves **India's four designated Gaganyaan astronauts**, supported by a multidisciplinary team of scientists, engineers, medical experts and psychologists.
- This study is targeted to generate vital understanding on the team inter-operability between Crew (Gaganyatris) & ground control teams and effectiveness of decision making under environmental & operational stress.
- **Significance:** The findings will play a vital role in shaping **India's future human spaceflight** missions, especially those involving longer durations in orbit or beyond.

UDANTI-SITANADI TIGER RESERVE



- **Location:** It is located in the state of Chhattisgarh.
- It was established by joining the regions represented by **Sitanadi and Udanti wildlife sanctuaries**.
- **Rivers:** The drainage system of the reserve consists of **the Mahanadi** as the main river, along with the **Udanti, Sitanadi, Indravan, and Pairi Rivers** as tributaries.
- The location of the reserve is strategic since it also connects with the Kanker and North Kondagaon forest divisions, forming a contiguous **forest corridor to Indravati Tiger Reserve in the Bastar region**.
- **Vegetation:** The forest type here is predominantly **tropical dry and moist deciduous**.
- **Flora:** The forest is **dominated by Sal** (*Shorea robusta*), which forms dense patches across the landscape.
 - Alongside, species such as Teak (*Tectona grandis*), Bamboo, Tendu, Mahua, Bija, and Harra contribute to the green diversity of the region.
- **Fauna:** It is home to the last few herds of the highly endangered **Wild Buffalo**.
- Apart from the tiger, other endangered and rare species are the Indian Wolf, Leopard, Sloth Bear, and Mouse Deer.