SANSKRITI IAS DAILY CURRENT AFFAIRS

19-11-2026

Surveillance Pricing

The Indian Express

What is surveillance pricing, and why does New York want to ban it?

What is surveillance pricing? How do companies use personal data to set prices? Why New York has voted to ban it, and what it could mean for...



Why in News?

- The **New York City Council** passed a bill to ban surveillance pricing, which uses consumers' personal data to determine individual prices.

Concept and Mechanism

- **Meaning:** It involves charging different consumers different prices for identical goods or services based on personal information.
- **Technology:** It uses **AI, Machine Learning and data analytics** to estimate consumers' willingness to pay.
- **Personalisation:** Different users may receive different prices for the same product.
- **Dynamic Adjustment:** Prices may change frequently based on newly collected consumer information.

Data Sources and Determinants

- **Digital Footprints:** Cookies, browsing history, search behaviour and device fingerprinting.
- **Mobile Applications:** Location and device-related information.
- **Purchase Records:** Loyalty cards and previous transaction histories.
- **Other Factors:** Income, location, demographic characteristics and social media activity.

Economic and Consumer Protection Dimensions

- **Consumer Discrimination:** Individuals may pay different prices without knowing how their personal data is being used.
- **Information Asymmetry:** Businesses possess extensive consumer information, while customers may lack pricing transparency.
- **Example:** A consumer in a wealthier locality may be shown a higher price than someone in a lower-income locality.

- **Dynamic vs Surveillance Pricing:** Dynamic pricing responds to demand and availability, whereas surveillance pricing relies on customer-specific personal information.

Traditional Knowledge Digital Library (TKDL)

www.pib.gov.in

CSIR-Traditional Knowledge Digital Library and Indian Knowledge Systems Division, Ministry of Education, Sign MoU to Strengthen Collaboration on Traditional Knowledge...



The Indian Knowledge Systems (IKS) Division, Ministry of Education, Government of India, and the CSIR–Traditional Knowledge Digital Library...

Why in News?

- The **Indian Knowledge Systems (IKS) Division** and **CSIR-TKDL Unit** signed an MoU to strengthen cooperation in traditional knowledge, IPR and people's rights over traditional knowledge.

Institutional Framework and Objectives

- **Establishment:** Established in **2001** through collaboration between **CSIR** and the **Ministry of AYUSH**.
- **Objective:** To prevent erroneous patents on Indian traditional knowledge and protect it from misappropriation.
- **Defensive Protection:** It provides documented evidence of existing traditional knowledge to prevent unauthorised patenting.

Knowledge Repository and Coverage

- **Database:** Contains over **5.2 lakh formulations and practices**.
- **Systems Covered: Ayurveda, Unani, Siddha, Sowa Rigpa and Yoga**.
- **Documentation:** Traditional knowledge is translated into structured information using modern scientific terminology.
- **Languages:** The database is available in **English, German, French, Japanese and Spanish**.

IPR Protection and Significance

- **Patent Offices:** Access is provided through **Non-Disclosure Agreements (NDAs)**.
- **Biopiracy Prevention:** It helps patent examiners identify existing traditional knowledge before granting patents.
- **Global Significance:** It is recognised as a benchmark for the defensive protection of traditional knowledge.
- **Recent Collaboration:** The MoU aims to strengthen traditional knowledge documentation, IPR protection and community rights.

Kerch Strait

The Guardian

Crimea bridge has been attacked again, says Russian-installed governor



Assessment of damage under way, days after two attacks that destroyed road section of key bridge across Kerch strait linking annexed...

Why in News?

- The Kerch Strait came into focus following attacks that damaged the road section of the **Crimean Bridge**, connecting Crimea with mainland Russia.

Geographical Location and Features

- **Location:** Southeastern Europe.
- **Connectivity:** It connects the **Black Sea** with the **Sea of Azov**.
- **Peninsulas:** It separates Crimea's **Kerch Peninsula** in the west from Russia's **Taman Peninsula** in the east.
- **Historical Name: Cimmerian Bosporus**.
- **Dimensions:** Approximately 35 km long, 3.1–15 km wide and up to 18 metres deep.
- **Important City:** The port city of **Kerch** lies on its Crimean side.

Important Infrastructure

- **Crimean Bridge:** Completed in **2018**, it connects Crimea with mainland Russia.
- **Length:** Approximately **19 km**.
- **Components:** It includes road and railway connections.
- **Significance:** It is strategically important for Russia's logistical connectivity with Crimea.

Strategic and Maritime Significance

- **Trade Route:** It is an important shipping passage for Russian grain and oil exports.
- **Geopolitical Importance:** It has been a major conflict point between Russia and Ukraine following Russia's annexation of Crimea in **2014**.
- **Maritime Access:** It provides access between the Black Sea and the Sea of Azov.

PM SVANidhi Scheme

Indian Masterminds

PM SVANidhi Samman Awards 2026: 52 Awards to Honour Contributions to Street Vendors' Empowerment

New Delhi: The Ministry of Housing and Urban Affairs (MoHUA) will organise the PM SVANidhi Samman Awards 2026 on November 20, 2026, at the Dr. Ambedkar...

Why in News?

- The **Ministry of Housing and Urban Affairs (MoHUA)** is organising the **PM SVANidhi Samman Awards 2026** in New Delhi.

Scheme Framework and Implementation

- **Full Name:** Prime Minister Street Vendor's AtmaNirbhar Nidhi.
- **Launch:** June 2020.
- **Nature:** A **Central Sector Scheme** providing affordable working capital to street vendors.
- **Objective:** To promote financial inclusion, livelihood security and social protection.
- **Implementation:** A joint responsibility of **MoHUA** and the **Department of Financial Services (DFS)**.

Financial Inclusion and Credit Support

- **Collateral-Free Loans:** Three progressive tranches of **₹15,000, ₹25,000 and ₹50,000**.
- **Interest Support:** Interest subsidy and credit guarantee support are provided.
- **Digital Credit:** Vendors repaying the second loan tranche become eligible for **UPI-linked RuPay Credit Cards**.
- **Credit Limit:** Up to **₹30,000**.
- **Digital Transactions:** Cashback incentives of up to **₹1,600** encourage digital retail and wholesale transactions.

Social Security and Capacity Building

- **SVANidhi se Samriddhi (SSS):** It facilitates socio-economic profiling of beneficiaries and their families.
- **Scheme Convergence:** Beneficiaries are linked with **eight selected Central Government welfare schemes**.
- **Capacity Building:** Training covers financial literacy, digital literacy and entrepreneurship.
- **Food Safety:** Training in food safety and hygiene is provided in collaboration with **FSSAI**.

Indian National Space Promotion and Authorization Centre (IN-SPACe)

The Hindu

Three space companies selected to develop high-resolution 3D reconstruction techniques for Indian cities



The Indian National Space Promotion and Authorization Centre (IN-SPACe) has selected three Indian space companies to develop High-Resolution...

Why in News?

- **IN-SPACe** selected three Indian space companies to develop high-resolution **3D reconstruction technologies** for mapping urban human settlements.

Institutional Framework and Mandate

- **Nature:** It is an independent, autonomous, single-window nodal agency under the **Department of Space (DoS)**.

- **Establishment:** Created following India's space-sector reforms to promote private-sector participation.
- **Mandate:** It promotes, enables, authorises and supervises space activities of **Non-Governmental Entities (NGEs)**.
- **Headquarters:** Ahmedabad, Gujarat.
- **Directorates:**
  - **Promotion Directorate (PD)**.
  - **Technical Directorate (TD)**.
  - **Programme Management and Authorisation Directorate (PMAD)**.

Functions and Responsibilities

- **Space Infrastructure:** Facilitates private development of launch vehicles, satellites and space-based services.
- **Infrastructure Sharing:** Enables access to facilities under **DoS and ISRO**.
- **New Facilities:** Supports the establishment of private space infrastructure.
- **Institutional Coordination:** Acts as an interface between **ISRO and private space entities**.
- **Demand Assessment:** Assesses requirements of private companies, educational institutions and research organisations.

Space-Sector Reforms

- **Private Participation:** Promotes India's private space ecosystem through authorisation and facilitation.
- **Urban Mapping:** Supports the development of 3D reconstruction technologies for mapping human settlements.
- **Resource Utilisation:** Aims to improve the use of India's space resources and expand space-based activities.

Palaeoloxodon namadicus

Why in News?



- Researchers discovered a fossilised jaw measuring approximately **75 cm** near the Narmada River in Madhya Pradesh, possibly belonging to *Palaeoloxodon namadicus*.

Evolutionary History and Distribution

- **Classification:** An extinct straight-tusked elephant and one of the largest land mammals known.

- **Geological Period:** It lived during the **Pleistocene Epoch (approximately 2.6 million–11,700 years ago)**.
- **Recent Discovery:** At **Patai Ghat**, near Patai village in Deori tehsil, **Raisen district, Madhya Pradesh**.
- **Indian Distribution:** Fossil remains have been reported from the Narmada-Godavari region, Ganga Valley of Uttar Pradesh and Bankura district of West Bengal.

Physical Characteristics

- **Size:** Considered the largest known proboscidean species.
- **Shoulder Height:** Approximately **4.5–5 metres**.
- **Body Mass:** Estimated maximum of **18–19 tonnes**.
- **Comparison:** Slightly larger than the European straight-tusked elephant.
- **Scientific Significance:** Its fossils provide evidence about prehistoric megafauna and India's Pleistocene ecosystems.

Climate Risk Index 2027

Down To Earth

India among top 10 countries hardest hit by extreme weather since 1996, with 78,000 disaster-triggered deaths: Climate Risk Index 2027



Germanwatch's Climate Risk Index 2027 records 436 extreme weather events in India, affecting over 1.2 billion people.

Why in News?

- According to the **Climate Risk Index 2027**, India ranked as the **10th most climate-vulnerable country** during 1996–2025.

Institutional Framework and Methodology

- **Publisher: Germanwatch**, a Germany-based environmental and development organisation.
- **Publication:** Published since **2006**.
- **Objective:** Assesses the impact of extreme weather events on countries.
- **Assessment:** Examines the preceding year and the previous 30-year period.
- **Hazard Categories:** Covers **hydrological, meteorological and climatological events**.
- **Parameters:** Uses human and economic losses, including fatalities and economic damage from seven hazard types.
- **Ranking:** A composite score is calculated to rank countries.

Major Global Findings (1996–2025)

- **Human Losses:** More than **916,000 deaths** due to climate-related extreme events.
- **Economic Losses:** Over **USD 4.7 trillion** in direct economic losses (inflation-adjusted).
- **Deadliest Hazard: Heatwaves** were the deadliest extreme weather events in 2025.
- **Costliest Hazard: Storms** accounted for approximately **58% of economic losses** during 1996–2025.

Climate Vulnerability and Policy Implications

- **India's Position:** Ranked **10th** over the assessed 30-year period.
- **Disaster Preparedness:** Highlights the need for stronger early warning systems and climate-resilient infrastructure.
- **Adaptation:** Emphasises heat action plans, flood management and resilient urban planning.

Other Important News of the day

Environment

White-Bellied Heron

Moneycontrol.com

Critically endangered, a White-Bellied Heron spotted in Arunachal Pradesh after months of conservation...

One of the world's rarest birds has been spotted along the Lohit River in Arunachal Pradesh. With fewer than 10 individuals believed to...



Why in News?

- The **Wildlife Institute of India (WII)** recorded a sighting of the critically endangered White-Bellied Heron along the **Lohit River in Arunachal Pradesh**.

Taxonomy and Geographical Distribution

- **Scientific Name:** *Ardea insignis*.
- **Other Names:** Imperial Heron or Great White-Bellied Heron.
- **Distribution:** Eastern Himalayan foothills across northeast India, Bhutan and northern Myanmar, with a few records from southern China.
- **Indian States: Assam and Arunachal Pradesh**.
- **Habitat:** Undisturbed river systems and wetlands in subtropical and temperate Eastern Himalayan forests.

Ecological and Physical Characteristics

- **Feeding Habit:** Large, fish-eating bird.

- **Body Size:** Nearly one metre tall and the second-largest living heron.
- **Appearance:** Dark greyish body with a white throat, belly and vent.
- **Distinctive Features:** An elongated flexible neck and serrated black bill help it catch fish.

Conservation Status

- **IUCN Status: Critically Endangered (CR)**.
- **Global Population:** Fewer than **100 mature individuals**.
- **Indian Population:** Fewer than **10 individuals** are believed to survive in the wild.
- **EDGE Status:** Included among the top 100 **Evolutionarily Distinct and Globally Endangered (EDGE)** species.
- **Conservation Priority:** Protection of pristine river systems and wetlands is essential for its survival.

Defence

Barak Point Defence Missile System

www.pib.gov.in

MoD inks Rs 1,976.40 crore contract with Israel Aerospace Industries for upgradation & obsolescence management of Barak Point Defence Missile System for Indian Navy



The Ministry of Defence has signed a contract with Israel Aerospace Industries for the upgradation and obsolescence management of Barak...

Why in News?

- The **Ministry of Defence** signed a ₹1,976.40 crore contract with **Israel Aerospace Industries (IAI)** for upgrading the Barak missile system deployed on Indian Navy ships.

Defence Technology and Deployment

- **Nature:** It is a shipborne **Surface-to-Air Missile (SAM)** system providing the last layer of naval air defence.
- **Purpose:** It intercepts incoming anti-ship missiles, aircraft and drones.
- **Development:** It was developed by Israel's **IAI** and **Rafael Advanced Defense Systems**.
- **Induction:** India acquired the original **Barak-1** in 2000.
- **Deployment:** It is fitted on **INS Vikramaditya**, Delhi-class destroyers and Shivalik- and Brahmaputra-class frigates.

Technical Specifications

- **Weight:** 98 kg; **warhead:** 22 kg.
- **Length:** 2,175 mm; **diameter:** 170 mm.
- **Range:** Approximately 10 km.
- **Speed:** More than Mach 2.
- **Automation:** Its fire-control system automatically assesses threats, allocates missiles and launches them using shipborne radar inputs.

Barak-1 vs Barak-8

Parameter	Barak-1	Barak-8
Role	Short-range point defence	Medium-range air defence
Range	10 km	Up to 100 km
Weight	98 kg	275 kg
Warhead	22 kg	60 kg
Development	Israel	India-Israel

- **Barak-8:** It can intercept aircraft, helicopters, UAVs, cruise missiles, ballistic missiles and anti-ship missiles.
- **Technology:** It uses a **dual-pulse rocket motor**, **Thrust Vector Control (TVC)** and an active radar seeker.
- **Multi-target Capability:** It can engage multiple targets simultaneously during saturation attacks.

Strategic Significance

- **Indigenous Replacement:** The **DRDO-developed Vertical Launch Short Range Surface-to-Air Missile (VL-SRSAM)** is expected to eventually replace Barak-1.

Science and Technology

CancerSpot

Why in News?


The Hindu

Pan-Indian study finds that higher levels of DNA fragments in blood strengthen cancer signals

Pan-Indian study shows CancerSpot blood test detects 72% of cancers across 14 types with 1.4% false positives, using DNA methylation and AI.

- The blood-based cancer detection test **CancerSpot** has demonstrated potential to detect multiple types of cancer through DNA analysis.

Scientific Principles and Technology

- **Developer:** Bengaluru-based **Strand Life Sciences**.

- **Nature:** It is a blood test designed to detect cancer-associated DNA changes.
- **Cell-Free DNA (cfDNA):** Cells release small DNA fragments into the bloodstream, known as circulating or cell-free DNA.
- **Tumour-Derived DNA:** In cancer patients, some fragments originate from tumour cells and carry cancer-associated changes.
- **DNA Methylation:** These are chemical modifications of DNA that influence gene activity.

Detection Mechanism

- **Technology:** It combines **DNA sequencing and AI-based analysis**.
- **Methylation Analysis:** It identifies differences in DNA methylation patterns between cancerous and normal cells.
- **Multi-Cancer Detection:** It aims to identify multiple cancers through a single blood sample.
- **Non-invasive Approach:** It may enable initial cancer detection without requiring a tissue biopsy.

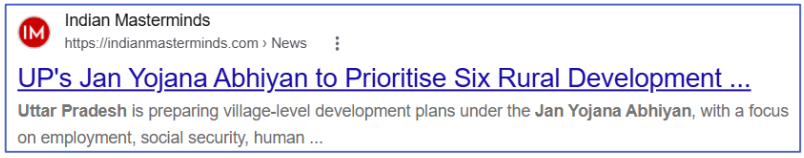
Recent Research Findings

- **Detection Sensitivity:** Higher circulating DNA levels were associated with stronger cancer signals and improved detection sensitivity.
- **Unexpected Finding:** Increased DNA release from immune cells did not dilute tumour-derived signals as initially expected.
- **Tumour–Immune Interaction:** Tumour-derived and immune-cell-derived DNA levels increased together in cancer patients.
- **Significance:** The findings improve understanding of blood-based cancer detection and tumour–immune interactions.

Uttar Pradesh in News

Uttar Pradesh's Jan Yojana Abhiyan

Why in News?



- Uttar Pradesh is preparing village-level development plans under **Jan Yojana Abhiyan** through the Gram Panchayat Development Plan (GPDP).

Objectives and Six Priorities

- Promotes **participatory rural development**, allowing gram panchayats to prioritise works based on local needs and resources.
- Six priorities:
  - Employment and income generation.
  - Social security and welfare benefits.
  - Human development and living standards.
  - Environmental protection.
  - Disaster management and preparedness.
  - Good governance and effective scheme implementation.

Institutional Framework

- The **Panchayati Raj Department** coordinates with district administrations; budget preparation involves the DC MGNREGA office.
- **GPDP** is a participatory, decentralised planning framework promoting community participation and convergence of rural development programmes.