7.Short News

1. Anti-Drone Security System at VOC Port

V.O. Chidambaranar Port Authority (VOC Port), located in Thoothukudi (Tuticorin), Tamil Nadu, has become India's first port to initiate the implementation of an advanced Anti-Drone Security System.

Key Features of the Anti-Drone System

Indigenous Defence Capability- The system represents a major advancement in indigenous electronic counter-measure technology, strengthening India's self-reliance in critical security infrastructure.

Integrated Technology- It is a comprehensive, integrated Radio Frequency (RF) and radar-based drone detection and jamming system.

360° Coverage- Tailored for complex port environments, it provides 360-degree coverage and omnidirectional bearing.

Components Used- Components include drone detector, drone detection radar, and man-pack jammer.

Operational Range- Offers omnidirectional coverage with an effective range of up to 5 km.

Capabilities- Enables real-time detection, tracking, classification, and neutralisation of unauthorized drones. Designed for quick deployment and strengthens security in sensitive operational areas.

Implementation Partner- An agreement was signed between VOC Port Authority and Central Electronics Limited (CEL).

2. Digital Public Infrastructure (DPI) Cooperation

The Government of India has signed Memorandums of Understanding (MoUs) and agreements with 23 countries for cooperation on its Digital Public Infrastructure (DPI), also known as India Stack.

DPI Cooperation Agreements

Purpose- The MoUs primarily aim at sharing, replication, and adoption of India's digital governance platforms.

Focus Areas- Cooperation covers digital identity, digital payments, data exchange, and citizen-centric service platforms. The India Stack components include Aadhaar for digital identity, UPI for payments, DigiLocker for document storage, CoWIN, API Setu, data exchange, and service delivery platforms. This initiative positions India as a global leader in digital governance and promotes DPI diplomacy for financial inclusion and efficient public services.

DigiLocker- MoUs for DigiLocker specifically signed with Cuba, Kenya, United Arab Emirates (UAE), and Lao People's Democratic Republic (Lao PDR/LPDR). Broader DPI cooperation (including identity, payments, etc.) extends to all 23 countries.

Unified Payments Interface (UPI) goes International

India's flagship Unified Payments Interface (UPI) is now operational in more than eight countries including the United Arab Emirates, Singapore, Bhutan, Nepal, Sri Lanka, France, Mauritius, and Qatar. This expansion supports cross-border remittances, boosts financial inclusion, and enhances India's role in the global fintech ecosystem.

3. New START Treaty Expiration

The expiration of the New START treaty has prompted the U.S. to call for a new, expanded nuclear arms control agreement, raising fears of renewed global nuclear competition.

About the New START Treaty

New START (Strategic Arms Reduction Treaty) was the last major nuclear arms control agreement between the United States and Russia, aimed at maintaining strategic stability.

Agreement - The treaty was signed in 2010 by the U.S. and Russia, continuing Cold War–era efforts to limit nuclear arsenals.

Renewal and Validity- Originally valid for 10 years, it was extended once in 2021 and expired in February 2026, without further renewal.

Key Provisions

1. Capped deployed nuclear warheads at 1,550 each for the U.S. and Russia.
2. Limited deployed delivery systems such as Intercontinental Ballistic Missile (ICBMs), Submarine-Launched Ballistic Missile (SLBMs), and heavy bombers.
3. Provided for mutual inspections, data exchanges, and transparency measures to build trust.

U.S. New Approach to Arms Control

The U.S. has proposed a new, modernised nuclear treaty to replace New START. The US insists that China must be included, citing its rapidly expanding nuclear arsenal. The U.S. has accused China of secret nuclear testing and lack of transparency, while criticising New START as flawed.

Potential Impacts of New START's Expiry

Removal of legal limits may trigger an unconstrained nuclear arms race among major powers. Reduced transparency and inspections increase strategic uncertainty and miscalculation risks. Global nuclear stability may weaken, undermining decades of arms control and disarmament efforts. The collapse of New START marks a critical juncture in nuclear governance, highlighting the urgent need for inclusive and credible arms control mechanisms in a multipolar world.

4. Urban Heat Stress

Recently, a UK based research warns that Indian cities may warm 0.5–2°C more than climate model projections, with smaller cities facing disproportionately higher heat stress.

India's Temperature Trend

18 Indian cities studied show faster warming than surrounding rural areas. On average, Indian cities warm ~45% more than regional Earth System Model (ESM) projections. Cities like Patiala could see double the projected warming, turning a 2°C rise into nearly 4°C due to urban effects. Smaller and non-metropolitan cities face greater relative risk than megacities.

Urban Heat Stress- Urban heat stress refers to excessive heat experienced in cities due to both climate change and local urban characteristics, making cities warmer than nearby rural areas.

Factors Responsible

Urban Heat Island Effect- Built-up areas absorb and retain more heat than vegetated land. The cities experience significantly higher temperatures than surrounding rural areas, with urban daytime temperatures 1–7°F higher and nighttime temperatures 2–5°F higher

Low Vegetation Cover- Reduced evapotranspiration limits natural cooling in cities.

Impervious Surfaces- Concrete and asphalt increase heat absorption and reduce moisture retention.

Model Limitations- Coarse-resolution climate models blend cities with rural areas, masking urban-specific warming.

Impact of Urban Heat Stress

1. Increased heat-related illnesses and mortality risks.

2. Higher water and electricity demand, raising public expenditure on cooling.
3. Reduced urban liveability and productivity, especially for vulnerable populations.
4. Widening temperature gap between cities and rural hinterlands, intensifying climate inequality.

The study highlights the urgent need for urban-specific climate planning, improved modelling, and heat-resilient city design to address escalating urban heat risks in India.

'Agni-3' Missile

Recently, India successfully test-fired the Agni-3 Intermediate-Range Ballistic Missile from Chandipur, Odisha, validating its full operational readiness.

About 'Agni-3' Missile

Agni-3 is an Intermediate-Range Ballistic Missile (IRBM) forming a vital component of India's land-based nuclear deterrent under the Agni missile series.

Key Features

Range- Approximately 3,000 km, enabling coverage of extended regional targets.

Propulsion- Two-stage solid-fuel missile ensuring rapid launch readiness and reliability.

Payload Capability- Can carry conventional or nuclear warheads.

Guidance System- Advanced inertial navigation system providing high accuracy.

Launch Platform- Road-mobile launcher, enhancing survivability and flexibility.

Significance

Strengthens Strategic Deterrence- Enhances India's capability to deter long-range adversarial threats under the doctrine of credible minimum deterrence.

Assures Second-Strike Capability- Improves survivability and response options against a nuclear attack.

Completes Missile Spectrum- Complements Agni-1 to Agni-5, covering the 700–5,000 km strategic range band. The successful Agni-3 test reinforces India's nuclear delivery readiness, operational reliability, and long-term strategic stability under the Strategic Forces Command.