

7. Short News

1. IUCN Species Survival Commission (SSC)

Indian wildlife conservationist Vivek Menon elected as Chair of IUCN-SSC for 2025–2029; first-ever Asian to hold this post.

Established – 1949; one of six expert commissions under IUCN.

Nature – A science-based global network of over 10,500 volunteer experts on species conservation.

Main Role –

1. Maintains the IUCN Red List of Threatened Species.
2. Advises governments and organizations on biodiversity conservation priorities.
3. Coordinates Specialist Groups, Task Forces, and Centers for Species Survival (CSS).

Governance – Led by a Chair and a Steering Committee. Structure is reconstituted every four years.

Vivek Menon –

1. Founder & CEO of Wildlife Trust of India (WTI).
2. Expert in elephant conservation and anti-poaching initiatives.
3. Active in global conservation forums like CITES and UNESCO.

2. Scheme for Innovation and Technology Association with Aadhaar (SITAA)

Launched by UIDAI to counter deepfakes and improve Aadhaar authentication security.

Nodal Ministry – Ministry of Electronics and IT (MeitY), implemented via UIDAI.

Partners – MeitY Startup Hub (MSH) and NASSCOM.

Objective – To boost innovation in digital identity security and safeguard Aadhaar authentication from spoofing, AI deepfakes, and presentation attacks.

Key Features –

Promotes AI-driven authentication and biometric tech.

Launches three innovation challenges –

1. Face Liveness Detection
2. Presentation Attack Detection (PAD)
3. Contactless Fingerprint Authentication

MSH – Offers incubation, mentoring, and R&D support.

NASSCOM – Ensures industry collaboration and global exposure.

3. IUCN World Heritage Outlook 4 Report (2025)

Assesses global natural World Heritage sites; Indian sites like Western Ghats, Manas, and Sundarbans rated as “significant concern”.

Publisher – IUCN; released every 3–4 years.

Purpose – Tracks conservation status and threats to global natural heritage sites.

2025 Key Findings – Sites under “Significant Concern” increased from 26% (2020) to 30% (2025).

Major threats – Climate change, tourism, invasive species.

India Highlights –

Significant Concern –

1. Manas National Park (Assam)
2. Sundarbans National Park (West Bengal)
3. Western Ghats – 5% forest loss.

Good with Some Concerns –

1. Great Himalayan NP (Himachal Pradesh)
2. Kaziranga NP (Assam)
3. Keoladeo NP (Rajasthan)
4. Nanda Devi & Valley of Flowers (Uttarakhand)

Good – Khangchendzonga NP (Sikkim) – only Indian site in this top category.

Emerging Threats – Climate change, deforestation, infrastructure, forest fires, illegal logging, poaching.

Management - Only ~3% sites show “highly effective” protection (down from 5% in 2020).

4. Henley Passport Index 2025

Released by Henley & Partners; ranks passports by travel freedom.

Top Rankings (2025) -

1. Singapore – 193 destinations
2. South Korea
3. Japan

UAE – rank 8 (184 destinations)

USA – rank 12 (180 destinations)

UK – rank 8

India's Ranking -

Rank 85 (down from 80 in 2024).

Visa-free access - 57 destinations.

Lowest rank - 90 (2021); **Highest** - 71 (2006).

About the Index -

Started - 2006.

Data Source - IATA database (visa regulations for 199 countries & 227 destinations).

Methodology - Counts destinations accessible visa-free, visa-on-arrival, or via eTA. Total equals the passport's Henley score — higher score means stronger passport.

5. PUNCH Space Mission (NASA)

Full form - Polarimeter to Unify the Corona and Heliosphere (PUNCH)

Objective - Study the Sun's corona and solar wind as a single system.

Features -

1. Consists of four small satellites in low Earth orbit.
2. Makes 3D global observations of the inner heliosphere.
3. Maps the transition zone where the corona becomes solar wind.

Key Achievement - First mission to image solar wind, normally invisible.

Scientific Significance - Helps understand and forecast space weather. Solar wind and coronal mass ejections (CMEs) can affect satellites, communications, power grids, and astronauts.

6. Cell2Sentence-Scale 27B (C2S-Scale) – Google AI

Type - 27-billion-parameter foundation AI model.

Purpose - Understand the “language” of individual cells.

Achievement - Proposed a novel cancer drug combination unknown to human experts. Validated experimentally in living cells.

Task Addressed - Detect nascent tumors before the immune system recognizes them.

Method - Forces tumors to display immune-triggering signals (antigen presentation).

Scientific Significance - Rare case of AI actively contributing to scientific discovery. Potential new pathways for cancer therapies (requires pre-clinical and clinical testing).

7. Su-57 Fighter Jets (India-Russia)

Developer - Sukhoi Company, Russia.

Type - Fifth-generation stealth multirole fighter (air superiority + strike).

First flight - 2010

Specifications

1. Twin-engine, single-seat
2. Top speed - Mach 2 (~2,136 km/h)
3. Combat range - ~1,900 km
4. Max takeoff weight - ~35 tons

Stealth & Survivability - Low radar cross-section. Reduced infrared and electro-optical signatures

Strategic Points -

1. Only US and Russia operate 5th-gen fighters among friendly countries.
2. US F-35 is more advanced but not offered under Make in India route.
3. Su-57 cheaper - ~\$35-40 million per unit (less than half of F-35).

Current Proposal - IAF considering procurement and possible local manufacturing.

