Role of Space Technology in Governance highlighted by Union Minister for Science and Technology

Union Minister highlighted India's space sector's role in transforming governance practices at 'Space-Tech for Good Governance' Conclave hosted by Indian Institute of Democratic Leadership.

Role of Space Technology in Governance

- Resource Management:
 - Mapping: Satellites like RESOURCESAT, CARTOSAT offer geospatial data for mapping land, water, and minerals.
 - Agriculture: Provide farmers with critical data for crop management and productivity enhancement. E.g. Krishi-Decision Support System.
 - Forest: IRS satellites assist Forest Survey of India in mapping forest cover, forest fires etc.
- Infrastructure: PM Gati Shakti leverages spatial planning tools and ISRO imagery to integrate infrastructure projects from various Ministries including Bharatmala, Sagarmala, etc.
- Social Sector:
 - Enhance healthcare quality using space tech e.g. ISRO's Health-QUEST.
 - Boost tele-education with live lectures and interactive training in remote areas e.g. EDUSAT.
- Disaster Management: ISRO's National Database for Emergency Management portal serves as national repository of GIS based data to support disaster management.
- Security: GSAT-7 and RISAT secure communications and border surveillance. Also, Mission Shakti (2019) showcases space defence capabilities.
- Transparency & Accountability: Use space technology for geo-tagging of MGNREGA assets launched in FY 2016-17.

India's space sector faces **criticism for allocating limited national resources to high-end space exploration**, but its technology significantly enhances governance and drives socio-economic progress.

Centre Urges Platform Workers to Register on e-Shram Portal for Formal Recognition

Union Budget 2025-26 announced for **registration on e-Shram** portal, **ID cards**, and healthcare coverage under **AB-PMJAY** (Ayushman Bharat Pradhan Mantri Jan Arogya Yojana).

Ministry of Labour and Employment will launch schemes to fulfill these mandates, and registration will help workers access benefits.

About Gig and Platform Workers

- Definition: Gig workers are those engaged in livelihoods outside the traditional employer-employee arrangement. They include:
- > Platform workers are those whose work is based on online software apps or digital platforms.
- > Non-platform gig workers are generally casual wage workers and own-account workers in the conventional sectors.
- Economic Impact: India's gig workforce is expected to reach 1 crore in 2024-25 and 2.35 crores by 2029-30 (NITI Aayog).

Challenges Faced by Gig and Platform Workers

- ▶ Lack of Social Security: Not covered under EPFO or other welfare schemes.
- ▶ Unstable and Low Income: Unfair high commissions by platforms, Arbitrary deactivation of ID by platforms, availability of opportunities based on rating, etc.
- Physical & Mental Strain: Long hours, financial stress, and pressure to meet targets affect well-being.

As Budget recognizes the rising contribution of the gig and platform workers in the economy, it is essential to provide them a social safety net, including minimum wages, regulated work hours, and access to healthcare.

Initiatives For Gig and Platform Workers

- Code on Social Security, 2020: Provides for framing of suitable social security schemes for gig workers and platform workers.
- e-Shram portal: For a Comprehensive National Database of Unorganized Workers.
- Survey: All India Survey on Domestic Workers to estimate the number and proportion of domestic workers.







Role Of AI In Women Empowerment Highlighted by The Prime Minister

The prime minister highlighted how AI helps create new opportunities for women while having the potential to ease their lives.

AI for Women Empowerment

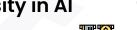
- Delivering personalised skill development at scale: Platforms like Coursera offer Al-tailored courses (e.g., coding, data analysis), helping women bridge skill gaps.
- Economic Empowerment: When used responsibly, Al expands talent pools, reduces hiring bias, improves inclusive communication, and enhances workplace collaboration.
- Healthcare & Well-Being: Al tools like Babylon Health's symptom checker aid early detection of diseases (e.g., breast cancer), improving access to healthcare in remote areas.
- Safety & Security: Apps like Safetipin use AI to map safe urban routes, reducing harassment risks.

Challenges for Women in Al

- Gender Gap: Women hold only 30% of AI roles globally (Global Gender Gap Report, 2023).
- Bias in Design: With women in less than one-third of tech jobs, AI may not fully address their needs (PwC).
- Perception Gap: 24% of women don't see Al impacting their jobs, compared to 20% of men (PwC).
- Privacy Risks: Al's data use raises concerns (e.g., a 2021 UK study found women's health apps leaking sensitive data).

transformative As technology, AI has the power to improve women's lives in countless ways. However, its full potential can only be realized if it represents everyone.

Ways to Increase Gender Diversity in Al





Support STEM Education

Highlight female Al leaders to inspire women and challenge stereotypes.



Mentorship

Guide and support women in Al careers.



Equal **Opportunities**

Hire and promote women in at least 50% of Al roles.



Ensure equal pay for equal work to attract and retain women.

International Women's Day: From women's development to women-led development

Women-led development (WLD) focuses on empowering women to take the leadership, set agenda for development, drive innovation, and shape policies from the forefront.

Significance of WLD

- Inclusive Governance: It channelizes potential of women for actively shaping and driving economic, social, and political progress at all levels of governance.
- Gender Equality: Tackles generational inequality (Global Gender Gap Index 2024: India ranked 129th out of 146 countries) by breaking gender stereotypes and rejecting norms that sustain gender disparity.
- Economic Development: Underscores women role to achieve Government of India's vision of 'Developed India' by 2047.
 - ⊕ As per National Family Health Survey study, advancing gender equality could potentially lead to 30% increase in India's GDP.
- **▶ Entrepreneurship Development:** Promotion of entrepreneurship among women including Tribals, Scheduled castes etc.

Challenges associated with WLD

- Climate change: Affects WLD by compromising work participation, health, food security, family etc.
- Gender digital divide: Only 15% of women in India have access to internet (Mobile Gender Gap 2021 Report).
- Education: Average female literacy rate throughout world is 79.9%, while India lags behind at 62.3%
- Others: Low Female Labour Force Participation Rate, mental health, reproductive health, domestic violence etc.

Initiatives taken for Women-led Development

- ▶ G20 Empowerment and Progression of Women's Economic Representation (EMPOWER) Gandhinagar, Gujarat: To accelerate women's leadership and empowerment in private sector.
- Nari Shakti Vandan Adhiniyam, 2023: To reserve onethird of total number of seats for women in Lok Sabha, State Legislative Assemblies and Delhi Assembly.
- Jal Jeevan Mission: Providing clean tap water supply, with women at core of planning, decision-making, implementation, and monitoring.
- Pradhan Mantri Ujjwala Yojana: Provides clean cooking fuel resulting in improving environment and women health.







Madhav National Park in Madhya Pradesh (M.P) becomes India's 58th Tiger Reserve (TR)

It becomes ninth TR from M.P to get the recognition. Other TRs from M.P includes Ratapani, Veerangana Durgavati, Sanjay Dhubri, Satpura, Panna, Bandhavgarh, Pench etc.

About Madhay National Park

- > Location: Shivpuri district in Chambal region and on northern fringe of Central Highlands of India forming a part of Upper Vindhyan Hills.
 - ⊕ It was notified as a National Park in 1958.
- ▶ Lakes: Sakhya Sagar and Madhav Sagar in southern part of park.
- Fauna: Nilgai, Chinkara, Chowsinga, Chital, Barking Deer, Marsh Crocodile, Leopard, Jackal, Python etc.
- > Flora: Northern Tropical dry deciduous mixed forest and dry thorn forest. Kardhai is dominant tree species.

Process of declaring TRs in India

- > TRs are notified by State Governments as per provisions of Section 38V of Wildlife Protection Act (WPA), 1972 on advice of National Tiger Conservation Authority (NTCA).
- > Following steps are involved in notification:
 - Proposal is obtained from State.
 - In-principle approval is communicated from NTCA, soliciting detailed proposals under section 38V of WPA, 1972.
 - NTCA recommends proposal to State after due diligence.

Tiger (Panthera tigris)

- ▶ Habitat: Tropical forests, evergreen forests, woodlands, mangrove swamps, grasslands, savannah.
- Characteristics: Largest of all Asian big cats, tigers rely primarily on sight and sound rather than smell for hunting.
 - **Live solitary**, apart from associations between mother and offspring.
 - Nocturnal and ambush predators.
 - Good swimmers and have been known to drown their
- Conservation status: Endangered (IUCN); Appendix I (CITES); Schedule 1 (WPA, 1972).

India's and Global Efforts to Protect Tigers



Project Tiger

Centrally Sponsored Scheme of MoEFCC to provide assistance to tiger States



Conservation Assured' Tiger Standards (CA/TS) accreditation of TRs

23 TRs in India have received CAITS accreditation



International Big Cat Alliance

Launched by India to secure future of big cats and their landscapes



Global Tiger Recovery Program

Evolved in 2010, under aegis of Global Tiger Initiative, launched by World Bank to enhance tiger habitats



Tigers Alive Initiative

WWF's effort to double number of tigers in wild

Also In News



Giant Goliath Beetle

New research has found that the West African cocoa industry and the international trade in dried insects have wiped out one species of a Goliath beetle species.

About Goliath beetles

- Features:

 - Five species exist; males have Y-shaped horns, females do not.
 - They can fly and are nocturnal (primarily active during) the night).
 - Adults feed on tree sap in mature rainforests.
- ➤ Habitat: primarily found in the tropical rainforests of Africa,
- Significance: They are decomposers and scavenge meat and plant debris, recycling nutrients. Their abundance indicates good forest health.



e-Toycathon 2025

For the first time, "e-Toycathon 2025" was organized by C-DAC under MeitY's research initiatives to boost electronic toy sector.

About e-Toycathon 2025

Announced under MeitY-funded project "Development of Electronics and IT-based Control and Automation Solutions for Consumer Electronic - Toys Industry".

About India's Toys Industry

- Status: Expected to reach US\$ 3 billion by 2028.
- Initiatives taken:
 - of Indian Standards Act, 2016.
 - National Action Plan for Toys to promote trade; design and quality; and indigenous toys.
 - **⊕** Directorate General of Foreign Trade mandated sample testing to curb import of sub-standards toys.











Hantavirus

As per U.S. Centers for Disease Control and Prevention, Hantavirus severity has drawn attention.

About Hantavirus

- Hantaviruses are a family of viruses carried by certain rodents, such as deer mice, white-footed mice, rice rats, and cotton rats.
- Impact: Causes potentially fatal illnesses, including Hantavirus Pulmonary Syndrome (severe respiratory illness) and Hemorrhagic Fever with Renal Syndrome (condition characterised by internal bleeding and kidney failure).
- **People at risk:** who live or work in areas where rodent populations are more prominent including farmers, construction workers.
- Treatment: No specific antiviral treatment or cure.



Intergovernmental Panel on Climate Change (IPCC)

IPCC has begun work on its seventh cycle of assessment reports.

IPCC assessments provide scientific basis for governments at all levels to develop climate related policies.

IPCC

- ➤ About: International body for assessing science related to climate change.
- Genesis: Set up in 1988 by World Meteorological Organization (WMO) and United Nations Environment Programme (UNEP).
- **Members:** 195 countries including India.
- Objective: To provide policymakers with regular assessments of scientific basis of climate change, its impacts and future risks, and options for adaptation and mitigation.



Insider Trading

EBI has issued warning to Nestle India for violating insider trading regulations.

About Insider Trading

- **Definition:** Insider refers to any person (usually senior management and officials) in a company who has access to unpublished price-sensitive information (UPSI).
- Regulation: Under Prohibition of Insider Trading (PIT) Regulations 2015 (as amended in 2024) enables insiders to trade in securities in a compliant manner. Under It:
 - insider trading.
 - Insiders have to give a 'trading plan' specifying the share price, amount, and transaction date in advance.



Sahitya Akademi Award

Recently, Sahitya Akademi honoured 23 authors with its prestigious 'Sahitya Akademi Award' for 2024.

About Sahitya Akademi

- Genesis: Formally inaugurated in 1954 and Registered under the Societies Registration Act, 1860.
- Ministry: An autonomous body under Ministry of Culture.
- Role: Undertakes literary activities in 24 languages (22 scheduled languages, English and Rajasthani).
- Its major awards: Sahitya Akademi Award, Bhasha Samman
 - Sahitya Akademi Award is given annually, to the Indian national and the award is given to the author only once in a lifetime in one language in one particular category.



Kinship and Community-Based Care Programme (KCBCP)

UNICEF, in collaboration with district authorities and NGOs, is working to address family-based childcare through its KCBCP in places like drought-prone Jalna in Maharashtra.

About KCBCP

- It is part of broader shift in India's child protection system that move away from institutional care toward family-based solutions such as strengthening family to prevent separation of children, foster care, and kinship care.
- It aims to keep children in their villages under the care of relatives or community members for better brain development.
- Other initiatives like Mission Vatsalya also emphasize noninstitutional support, enhancing family roles and ensuring no child is left behind.



Exercise Khanjar

KHANJAR-XII edition of 2025 is set to take place in Kyrgyzstan. **About Khaniar:**

- It is an India-Kyrgyzstan Joint Special Forces Exercise.
- It is held annually and conducted alternatively in both the countries.
- Aim: To exchange experiences and best practices in **Counter Terrorism** and Special Forces Operations.



Personality in News



Ammu Swaminathan (1894 - 1978)

Smt. Ammu Swaminathan is among 15 women featured in 'The Life and Contributions of the Women Members of the Constituent Assembly'.

- It is a tribute by the Ministry of Law & Justice to their role in drafting India's Constitution. **Ammu Swaminathan (1894 - 1978)**
- **Early Life:** Born in Palakkad, Kerala, and fondly called Ammukutty.
- **Political Career:**
 - Arrested in Quit India Movement (1942).
- **Key Contributions:**
 - Defied Caste Norms: she called herself Shudrachi to challenge upper-caste pride.
 - Women's Rights: She was believed to have Co-founded the Women's India Association (WIA) in 1917 with Annie Besant to fight for economic rights and voting for women.

Values: Equality, Justice, Courage, Empathy, etc.































AHMEDABAD

BENGALURU

BHOPAL

CHANDIGARH

DELHI

GUWAHATI

HYDERABAD

JODHPUR

LUCKNOW

PRAYAGRAJ

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