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Indigenous Technology Cruise Missile (ITCM) successfully flight-tested by DRDO

- Defence Research and Development Organisation (DRDO) conducted test from the Integrated Test Range (ITR), Chandipur on the eastern coast.
- About ITCM
 - Developed by the Aeronautical Development Establishment (ADE) of DRDO.
 - It is a long-range subsonic cruise missile powered by an indigenous propulsion system.
 - The propulsion system is developed by Gas Turbine Research Establishment.
 - Cruise missiles are unmanned vehicles that remain within the atmosphere and can fly as low as a few meters off the ground.
 - Subsonic cruise missile flies at a speed lesser than that of sound (around 0.8 MACH)
- Reasons for Missile and Satellite launch from the Eastern coast
 - A satellite launched from the sites near the equator towards the east direction gets an initial boost equal to the velocity of Earth's surface.
 - It helps in cutting down the cost of rockets used to launch the satellites.
 - ● In case of the failure of satellite/missile, the Bay of Bengal provides a safe corridor that does not fall on built-up hinterland.
 - ⊕ Does not have major international maritime or airline routes crisscrossing testing.
 - During test launches, the few existing routes can be closed temporarily without causing much disruption.

Aeronautical Development Establishment (ADE)

- Located: Bengaluru
- About: It is a key Aeronautical Systems Design House involved in the design and development of state-of-the-art Unmanned Aerial Vehicles (UAV) and Aeronautical Systems and technologies.
- Major activities:
 - ABHYAS: High-speed Expendable Aerial Target (HEAT).
 - ● Rustom-1: the first Indian Remotely Piloted Aircraft System to have conventional take-off and landing capabilities.

Survival International Report Highlights Six UNESCO World Heritage Sites on Indigenous People's Land

Sites include Ngorongoro Conservation Area, Kahuzi-Biega National Park, Odzala-Kokoua National Park, Kaeng Krachan Forest Complex, Kaziranga National Park, and Chitwan National Park.

Indigenous people

- They are distinct social and cultural groups that share collective ancestral ties to the lands and natural resources where they live e.g. Maori, Inuit, etc.
- Considering the diversity of indigenous peoples, an official definition of "indigenous" has not been adopted by any UN system body.

Issues of Indigenous people:

- Extreme Poverty: Although they make up just 6 percent of the global population, they account for about 19 percent of the extreme poor.
- ⊕ Land evictions and Forced displacement: Due to development projects e.g. Dams, Mining, etc.
- ● Restricted access to health care: They have higher rates of infant mortality, malnutrition, and lower life expectancy.
- Other Issues: Poor political representation, Lack of access to social services, housing and education, climate change, etc.

Steps Taken for the Protection of Indigenous People	
Global Steps	Indian Steps
 United Nations Declaration on the Rights of Indigenous Peoples. United Nations Permanent Forum On Indigenous Issues. Expert Mechanism on the Rights of Indigenous Peoples. UN Special Rapporteur on the Rights of Indigenous Peoples. 	 Fifth and Sixth Schedule of Constitution. Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM JANMAN) Eklavya Model Residential Schools. Pradhan Mantri Vanbandhu Vikas Yojana. Pradhan Mantri Adi Adarsh Gram Yojana

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Sweden becomes 38th country to join Artemis Accords

Artemis Accords was established in 2020 by NASA, in coordination with the US Department of State, together with seven other founding member nations.

About Artemis Accords

- Grounded in Outer Space Treaty (OST) of 1967, these are a non-binding set of principles designed to guide civil space
 in the space treat of the space tre exploration and use in the 21st century.
- vision of peaceful space cooperation.
- India is a signatory to the Artemis Accords.
- **Commitment of Signatories under the Accords**
 - Broad dissemination of national space policies and scientific information resulting from their activities.
 - common exploration infrastructure and standards such as communication systems, landing structures, etc.
 - Implement **MoUs** between governments or agencies as per the Outer Space Treaty 1967.
 - landing sites and evidence of activity on celestial bodies.
 - Mitigate orbital debris and induce safe and timely disposal of spacecraft at the end of missions.

International Treaties Governing Outer Space

- Outer Space Treaty (1967): Provides basic framework for international space law.
- > Rescue Agreement (1968): To rescue and assist astronauts in distress.
- Liability Convention (1972): Provides that launching State shall be > absolutely liable to pay compensation for damage caused by its space objects on the surface of the Earth or to aircraft.
- > Registration Convention (1976): Registration of objects launched into outer space.
- Moon Agreement (1979): Provides that the Moon and its natural > resources are the common heritage of humankind.

Note: India has ratified all these treaties, except the Moon Agreement of 1979. India, however, is a signatory to Moon Agreement.

Voluntary Code of Ethics for Social Media Platforms (SMPs)

- X (formerly Twitter) withheld 4 posts for Model Code of Conduct violation at the request of the Election Commission of India (ECI), adhering to the 'Voluntary Code of Ethics' for social media platforms.
- Voluntary Code of Ethics (CoE)
 - Oce aims to ensure free, fair, and ethical usage of SMPs to maintain the integrity of the electoral process
 - Irist presented to the ECI by various SMPs and Internet and Mobile Association of India (IAMAI) in 2019.
- Commitment of SMPs under CoE
 - Representation of People Act, 1951, and other applicable electoral laws which shall be acknowledged/ processed within 3 hours.
 - Section 126(1)(b) prohibits displaying any election matter in any electronic media during the period of 48 hours ending with the hour fixed for conclusion of poll.
 - Platforms have to create high priority dedicated reporting mechanism for ECI for taking expeditious action on any reported violations.
 - Platforms to provide a mechanism for political advertisers to submit precertified advertisements issued by Media Certification and Monitoring Committee.



Challenges posed by SMPs for Free and Fair Elections

- Echo chambers and filter bubble: Algorithms reinforce existing biases and limit exposure to diverse viewpoints. >
- Voter profiling and Micro-targeting: Potential misuse of personal data for voter profiling and micro-targeting. >
- Misinformation and disinformation: Rapid dissemination of false information, including fabricated news, doctored images or videos, >
- External influence: SMPs can be used by foreign actors to influence elections through coordinated disinformation campaigns, > amplification of divisive content, etc. [e.g., Cambridge Analytica Controversy in the US (2018)]



'Navchetana - National Framework for Early Childhood Stimulation (ECS)' released

- Framework document aims to fill the conceptual and practical gaps in understanding and implementing care and stimulation from birth until the first three years of a child's growth.
- Childhood Stimulation: Stimulation activities involve intentional efforts to activate the child's early development.
- Need of ECS

 - At birth only 25% of the eventual brain is formed, while 75% develops in the first 3 years of a child's life.

Key highlights of the ECS Framework

- ⊕ Document emphasizes on two of the five components of nurturing care framework: 'responsive caregiving' and 'creating opportunities for early learning'.
 - Nurturing care framework for Early Childhood Development was provided by WHO in 2018.
- ● Entails 36 sets of activities for children from months 0 to 36 for holistic stimulation of child's cognitive, socio-emotional, language, physical, and creative development.

Measures for Early Childhood Care and Education (ECCE) in India

- Article 45: Directs the State to provide ECCE for all children until they complete the age of six years.
- Right of Children to Free and Compulsory Education (RTE) Act, 2009: Provides that appropriate government may make necessary arrangements for pre-school education.
- National Education Policy, 2020: Recommended a subframework for 0-3 years old under National Curricular and Pedagogical Framework for Early Childhood Care and Education
- Others: India is also a signatory to the International Convention on the Rights of the Child (CRC) 1989.

Also in News



Infectious Respiratory Particles (IRPs)

- WHO published a global technical consultation report introducing updated terminology for pathogens that transmit through the air.
- About IRPs

 - Pathogens covered include those that cause respiratory infections, e.g., COVID-19, influenza, measles, Middle East respiratory syndrome (MERS), severe acute respiratory syndrome (SARS), TB, etc.
 - ● IRPs exist on a continuous spectrum of sizes, and no single cut off points should be applied to distinguish smaller from larger particles.

Sugar content of Nestle infant milk in poorer countries is higher than in developed countries

- Public Eye, a Swiss investigative organization, and International Baby Food Action Network revealed it.
 - ● According to World Health Organization (WHO), early exposure to sugar creates a lifelong preference for sugar increasing the risk of obesity and other chronic illnesses.
- This double standard raises ethical concerns and underscores the need for ethical and responsible business practices.
- Ethical concerns
 - Breach of trust: Selling an inferior product breaches consumer trust.

 - ● Against the principle of fairness: as the company is differentiating between rich and poor countries customer.
- Regulations for ensuring the quality of food products
 - The Codex Alimentarius is a collection of internationally recognized standards, guidelines, and codes of practice for food safety and quality.
 - Developed by the Codex Alimentarius Commission, a joint body of the Food and Agriculture Organization and WHO.
 - The Food Safety and Standards Act 2006, defines food safety and establishes the Food Safety and Standards Authority of India as the apex regulatory body for food safety and quality in India.

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Parkinson Plus Syndrome (PPS)

- A patient from France received India's first high cervical spinal cord stimulation for PPS.
- About PPS
 - Also called atypical Parkinsonism.
 - Refers to a group of neurodegenerative movement disorders that resemble idiopathic Parkinson's disease.
 - Idiopathic means the cause is unknown.
 - Certain distinguishing clinical and pathophysiological features include early-onset dementia, hallucinations, problems with balance, etc.
- Parkinson disease is a brain condition that causes problems with movement, mental health, sleep, pain and other health issues.

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Snail Mucin

- Snail Mucin has caught the attention of both beauty enthusiasts and experts alike.
- **About Snail Mucin:**
 - It is a gooey secretion that snails produce when they crawl.
 - It protect snails from cuts and wounds.
 - It can be used in the form of serum, moisturizers, and wound healer.



Aral Sea

Study has found that the desert which emerged due to the drying up of the Aral Sea has made Central Asia a much dustier place.

About Aral Sea

- It was once-large saltwater lake of Central Asia.
- Lies on the **boundary between Kazakhstan** to the north and Uzbekistan to the south.
- Other important lakes that shrunk in last few decades:
 - Lake Urmia: Lies in the bottom of the large central depression of the Azerbaijan region in northwestern Iran.
 - Lake Hamoun: Freshwater Lake in Iran on Iran Afghanistan € border.

World Craft City (WCC)

- The World Crafts Council International (WCCI) has picked Srinagar to map its craft clusters before its final nomination as the WCC.
- About WCC

- Eaunched in 2014 by the WCCI.
- communities in cultural, economic, and social development worldwide.
- It establishes a dynamic network of craft cities across the globe, aligning with the principles of the creative economy.
- WCCI is a Kuwait-based organization working on the recognition and preservation of traditional crafts across the globe.



Longevity India Initiative (LII)

Indian Institute of Science (IISc) has launched the 'Longevity 3 India' Initiative to support ageing research in India.

> About LII

• Seeks to enhance understanding of ageing through both fundamental and applied research, and to develop solutions that can improve quality of life.

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- Brings together a multidisciplinary team of experts from academia, and industry to promote healthy ageing across India.
- Research focus includes identifying early disease indicators, investigating ageing biomarkers, and developing new therapeutics and technologies to aid in healthy ageing.

Exoskeleton

- Recently, the first international workshop on 'Emerging Technologies and Challenges for Exoskeleton' was held by DRDO.
- About Exoskeleton
 - framework (akin to an insect's exoskeleton) worn by a person.
 - It is powered by a system of motors, hydraulics, or pneumatics € that delivers energy for limb movement.
 - 0 Applications: Aid for people with disabilities, helps soldiers to carry heavy loads, Factories and assembly lines, etc.



New Archaeological sites in Telangana

- Archaeologists have discovered 3 new archaeological sites in Telangana.
- New Archaelogical sites include: 3
 - Ooragutta: An Iron Age megalithic site.
 - Two new rock art sites at Damaratogu in Gundala mandal of Bhadradri Kothagudem district.
 - Devarlabanda Mula: Has only depictions of animals and ٠ no humans or weapons.
- Usually in this region, a type of megalithic monument known as 'Dolmenoid Cists' are found.
 - Dolmenoid cists are chamber tombs which are semisubterrenean.

