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Union Cabinet approves Pradhan Mantri Janjatiya Unnat Gram Abhiyan (PM-JUGA)

PM-JUGA is based on learnings and success of PM-JANMAN (Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan).

- Aim: Improving socio-economic condition of tribal communities, by adopting saturation coverage for tribal families in tribal-majority villages and aspirational districts.
 - India has Scheduled Tribe population of 10.45 crore as per 2011 census and there are more than 705 tribal communities.
- **Total outlay: Rs.79,156 crore** with Central Share of Rs.56,333 crore.
- Coverage: 63,000 villages benefitting more than 5 crore tribal people, covering 549 districts across 30 States/UTs.
- Implementation: It comprises 25 interventions to be implemented by 17line ministries through funds allocated under Development Action Plan for Scheduled Tribes (DAPST) in next 5 years.
 - Tribal villages covered will be mapped and progress will be monitored on **PM** Gati Shakti platform.
- Mission's Four Goals:
 - Goal-I: Developing Enabling Infrastructure such as Pucca house for households and improving Village Infrastructure.

 - Goal-3: Universalization of Access to Good Education
 - Goal-4: Healthy lives and Dignified Ageing

Innovative Schemes under PM JUGA

- Tribal Home Stay: To tap tribal tourism and alternate livelihood, 1000 Home stays will be promoted under Swadesh Darshan.
- Sustainable Livelihood Forest Right Holders (FRA): Special focus on 22 lakh FRA patta holders residing in forest areas for recognizing and securing forest rights.
- Improving infrastructure of Government residential Schools and Hostels on lines of PM-Shri Schools.
- Advance facilities for diagnosis of sickle cell disease.
- Tribal Multipurpose Marketing Centre for marketing of tribal products.

Cabinet clears proposal of One Nation One Election (ONOE)

It has accepted recommendations of **High-Level Committee** on ONOE/Simultaneous Elections under chairmanship of former President Shri Ram Nath Kovind.

What is meant by ONOE?

It means holding elections to the House of the People, all the State Legislative Assemblies, and local bodies i.e., Municipalities and Panchayats, together.

Benefits of ONOE:

- **Decreased government exchequer:** Rs 60,000 crore was spent in 2019 LS elections.
- Increase voter's turnout: e.g. Frequent elections lead to 'voters' fatigue'
- Stable policy and growth: Currently frequent imposition of the Model Code of Conduct causes policy paralysis affecting supply chains, business investments and economic growth.
- Smooth delivery of services: Frequent use of government officials and security forces in elections adversely affect discharge of their duties.



Roadmap Suggested by High Level Committee

- Amendments to Constitution in two steps:-
- 1st: Simultaneous conduct of Lok Sabha and Assembly elections (no ratification of states required).
- 2nd: Synchronization of 1st step with local elections by conducting Municipalities and Panchayat elections within 100 days of general elections (requires ratification by not less than one-half of the states).
- Dealing with Hung House/No-Confidence Motion: Fresh elections for constituting new House of People or State Legislative Assembly for unexpired term of the House of the People.
- Common electoral roll for all the three tiers of Government.

1/4



Union Cabinet approved the building of Bharatiya Anthariksh Station (BAS) by extending scope of Gaganyaan Programme

Cabinet gave approval for development of first module of Bharatiya Anthariksh Station (BAS-1) and undertake missions to demonstrate and validate various technologies for building and operating BAS.

> Presently, there are two space stations in orbit namely, International Space Station and China's Tiangong Space Station.

Revised Gaganyaan Programme

- Gaganyaan Programme approved in 2018 envisages undertaking the human spaceflight to Low Earth Orbit (LEO). It targets development and demonstration of critical technologies for long duration human space missions.
- Under Revised Programme, ISRO will undertake four missions under ongoing Gaganyaan Programme by 2026 and development of BAS-1 & four missions for demonstration & validation of various technologies for BAS by December, 2028. • By 2035, ISRO plans to construct additional modules to achieve full operational status for space station.
- BAS is currently in conceptualization phase, under which overall architecture, number and types of modules, docking ports etc. are being studied.

Significance of BAS

- Fulfil Amrit Kaal vision for creation of BAS by 2035 and Indian Crewed Lunar Mission by 2040.
- Boost microgravity-based scientific research, technology development activities, and encourage innovations.
- Boost employment in high-tech space and allied sectors with enhanced industrial participation.

Union Cabinet approves Biotechnology **Research Innovation and Entrepreneurship** Development (Bio-RIDE) Scheme

Bio-RIDE is part of Government of India's mission to harness potential of bio-innovation to tackle national and global challenges in sectors such as healthcare, agriculture, environmental sustainability etc. About Bio-RIDE Scheme

- Nodal Department: Department of Biotechnology, Ministry of Science & Technology.
- **Objectives**
 - Strengthen India's position as a global leader in biomanufacturing and biotechnology.
 - Make India a US\$300 billion Bioeconomy by 2030.
- Three Components: It combines two existing schemes with a new third component:
 - Biotechnology Research and Development (R&D): Assistance for human resource development, Bioinformatics, Biotech facilities, Centre of Excellence etc.
 - Industrial and Entrepreneurship Development (I&ED): Assistance is given to schemes including Public Private Partnership Programmes, Bio-clusters and Biotech parks. Biomanufacturing and Biofoundry (B&B):
 - This new component aims at furthering India's goal of creating a Circular Bioeconomy in alignment with Lifestyle for the Environment (LiFE) mission.
 - A circular bioeconomy offers a conceptual framework for using renewable natural capital to transform and manage our land, food, health and industrial systems, with the goal of achieving sustainable wellbeing in harmony with nature.
- Funding: Rs.9,197 crore during the 15th Finance Commission (2021-22 to 2025-26).

Significance of Scheme

- Promote Bio-Entrepreneurship: Nurturing startup ecosystem through seed funding, incubation and mentorship support.
- > Advance Innovation: Grants and incentives for cutting-edge R&D in areas like synthetic biology, biopharmaceuticals, bioenergy, and bioplastics.
- Facilitate Industry-Academia Collaboration: To accelerate commercialization of bio-based products and technologies.
- Encourage Sustainable Biomanufacturing and nurture human resource in biotechnology.
- Extramural funding, i.e., funding from outside the universities and research institutions.

Related News

Union Cabinet also approved the development of Next Generation Launch Vehicle (NGLV), a significant step towards establishing & operating BAS.

- > It will have 3 times the payload capability of Launch Vehicle Mark-3 (LVM3), with ability to carry up to 30 tonnes to Low Earth Orbit (LEO).
- > It will have a reusable first stage resulting in lowcost access to space and modular green propulsion systems.
- NGLV will be demonstrated with three development flights with a target of 8 years for completion of development phase.

Cabinet approves continuation of schemes of Pradhan Mantri Annadata Aay SanraksHan Abhiyan (PM-AASHA)

Government has converged the Price Support Scheme (PSS) & Price Stabilization Fund (PSF) schemes in PM AASHA to serve the farmers and consumers more efficiently.

- PM-AASHA will now have components of Price Support scheme (PSS), Price Stabilization Fund (PSF), Price Deficit Payment Scheme (PDPS) and Market Intervention Scheme (MIS).
- Key Features of Renewed PM-AASHA Scheme:
- **Dijectives:** To ensure remunerative prices to farmers for their produce of oilseeds, pulses, copra etc.
- Total Financial Outlay: Rs. 35,000 crore during 15th Finance Commission Cycle upto 2025-26
- **Components of Scheme:**
 - Price Support Scheme (PSS): Procurement of notified pulses, oilseeds & copra at Minimum Support Price under PSS set at 25% of national production.
 - Ceilings will not be applicable in case of Tur, Urad & Masur for 2024-25 season.
 - Price Stabilization Fund (PSF): Government will procure pulses at market price when above MSP including from preregistered farmers on eSamridhi (NAFED) and eSamyukti (NCCF) portals.
 - Price Deficit Payment Scheme (PDPS): Coverage for oilseeds increased to 40%, with a 4-month implementation period.
 - Market Intervention Scheme (MIS): MIS coverage increased to 25%; now differential payment will go directly into the farmers' account.
 - Government will cover transport and storage costs for TOP (Tomato, Onion & Potato) crops.

Benefits from converged Schemes:

- **PSS:** Encourages crop diversification, and reduces import dependence for notified pulses, oilseeds & copra
- **PSF:** Protects consumers from price volatility by maintaining strategic buffer stocks of pulses/onions.
- MIS: Provides remunerative prices to farmers growing perishable horticulture crops; also soften TOP crop prices for consumers.

2/4



US Food and Drug Administration granted breakthrough device status to Neuralink 'Blindsight'

Blindsight is an experimental vision-restoring implant which aims to assist individuals who have lost their sight or were born blind (Initially offering low-resolution vision).

- Breakthrough device designation is intended to accelerate development of devices that offer promising new treatments or diagnostic capabilities for life-threatening conditions.
- > Neuralink, founded by Elon Musk in 2016, is a company working on Brain Computer Interfaces (BCIs) with a focus on healthcare applications. About BCIs:
 - It allows users to communicate or control external devices using brain signals without any physical movement.
- > Types of BCIs:
 - Invasive: Chips/Sensors are placed directly into the cortex E.g. Neuralink's Implant.
 - Non-Invasive: Sensors are placed on scalp.
 - Partially invasive: implanted inside skull but rest outside brain.
- **Applications of BCIs:**
- Medical: Help restore lost functions e.g. controlling prosthetic limbs or aiding patients with neurological disorders like paralysis.
- Mental wellness: Real-time feedback on users' mental well-being and facilitates effective mental health practices.
- Defense: Improved battlespace awareness, enhanced management of autonomous systems etc.
- Gaming and entertainment: Immersive gaming experiences through uni- or bi-directional neural communication.

Issues with BCIs:

- Cybersecurity risks: E.g. Brain tapping (intercepting signals transmitted from brain).
- **Ethical Concerns:** concerns regarding informed consent.
- Safety Issues: E.g. tissue damage, seizures, cognitive impairment etc.



Also in News



India-Denmark Green Strategic Partnership

Recently, MoUs were signed under Green Strategic Partnership to strengthen the India-Denmark's maritime relations

About Green Strategic Partnership (GSP):

- Signed in 2020, It expands economic relations and green growth, creates jobs and strengthens cooperation on addressing global challenges.
- Focus of GSP: Implementation of the Paris Agreement and the UN Sustainable Development Goals.
- Joint Action Plan on Green Strategic Partnership (2021-2026): was also drawn up for furthering GSP.
- Under GSP, collaboration has expanded across key areas such as Quality shipping, Cooperation on Port State Control, Maritime training and education etc.



NPS Vatsalya Scheme

National Pension System Vatsalya (NPS Vatsalya) scheme, a pension scheme for minors, has been launched.

NPS Vatsalya Scheme

- Eligibility: All minor citizens (age below 18 years).
 On attaining the age of majority, plan can be converted seamlessly into a normal NPS account.
- Regulation and Administration: Pension Fund Regulatory and Development Authority (PFRDA).
- Objective: Promoting long-term financial planning and security, inculcate habit of savings and dignified life in old age.
- Subscriber Contribution:
 - ➔ Minimum: Rs 1000/- per annum.
 - Maximum: No limit.
- PFRDA will provide multiple investment choices to subscribers such as government securities, corporate debt, equity etc.



Union Cabinet approved the establishment of **National Centre of Excellence (NCoE)** for Animation, Visual Effects, Gaming, Comics, and Extended Reality (AVGC-XR).

- NCoE will be set up in Mumbai as a Section 8 Company (Non-Profit Organization) under the Companies Act, 2013.
- NCoE will offer specialized training-cum-learning programs, foster R&D and function as an incubation centre.

About AVGC-XR sector

- Industry currently employs 2.6 lakh people and is expected to create 23 lakh direct jobs by 2032.
- Revenues are expected to cross \$26 billion by 2030, up from \$3 billion currently.
- Challenges: Lack of standardization, lack of skilling and vocational training centres, etc.



The International Rhino Foundation (IRF) published the 'State of the Rhino' report.

Findings of Report:

- Greater One-Horned Rhinos are benefiting from improved habitats and wildlife corridors.
 - O Its population has grown 20% in the last decade, and now exceeds 4,000 animals.

About Greater one-horned Rhino

- Habitat: Indo-Nepal Terai, northern parts of West Bengal, and Assam.
- **IUCN status:** Vulnerable
- Sociability: Usually solitary except for females with young. Males maintain loosely-defended territories.
 - Gestation lasts approximately 15 16 months, and mothers give birth to one calf every 2 3 years.
- Population in india: 3,262 (2021). Assam has the largest population of greater one-horned rhinos.
 More than 90% of them are in Kaziranga National Park.
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3/4

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Chandrayaan-4

Union Cabinet gave approval for Chandrayaan-4 Mission, a successor to Chandrayaan-3 which demonstrated soft landing on Moon.

About Chandrayaan 4

- It aims to develop and demonstrate key technologies for landing on the Moon, collecting lunar samples, and returning to Earth safely.
- > It will achieve the foundational technologies capabilities eventually for an Indian landing on the moon (planned by year 2040) and return safely back to Earth.
- ISRO will be responsible for the development of spacecraft and launch.
- Timeline: Expected to be completed within 36 months.
- Budget: ₹2104.06 crore.



Pheromone

Indian scientists have developed a sustainable pheromone dispenser with a controlled release rate which can help reduce costs of pest control and management.

Released pheromones alter the behaviour of the target insect **species** and attract them to sticky traps.

About Pheromones

- > Pheromones are **chemical signals** which trigger a response or elicit specific behavioural expressions from the opposite sex, same sex or both sexes of the same species.
- Pheromones can be found in body fluids like urine, sweat, specialized exocrine glands, and genital mucous secretions.
- Used by Insects: To help attract mates, warn about predators, and find food



New study highlights the role circumnutations could play in plant growth patterns.

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About Circumnutation:

- It refers to small, continuous movements made by plants to explore their environments.
 - These movements appear as **spirals or zigzags**.
- Significance: It is an inherent behavior across plant species. allowing them to adapt to environmental conditions and maximize their growth potential.
 - E.g. Self-organization of Sunflower: Sunflowers form a zigzag pattern when grown in dense rows, allowing sunflowers to lean away from one another, avoiding shade and maximizing sunlight exposure.
- Researchers found that circumnutation often seems random, with plants moving in unpredictable ways.



Trademark Search Technology

Ministry of Commerce & Industry unveiled the Artificial Intelligence (AI) and Machine Learning (ML) based Trademark Search Technology and IP Saarthi Chatbot.

IP Saarthi Chatbot is a digital assistant designed to provide instant support and guidance to users navigating the Intellectual Property (IP) registration process.

Trademark Search Technology:

- Advanced AI and ML algorithms for precise trademark identification.
- Streamlined search processes for domestic and international D businesses.
- Enhanced protection capabilities for trademarks.
- Benefits: Expedite trademark registration processes, improve overall user experience, foster international collaboration.



Amazon River

Solimoes, one of the main tributaries of the mighty Amazon River, is facing the worst drought on record.

Nearby Lake Tefé has also dried up.

About Amazon River:

- Largest River system in the world in terms of the volume of water flow and area of its basin.
- Origin: High in the Peruvian Andes.

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- River basin: Includes the greater part of Brazil and Peru, significant parts of Colombia, Ecuador, and Bolivia, and a small area of Venezuela.
- Tributaries: Approximately 1,100 tributaries, Notable tributaries: Japurá (Caquetá in Colombia), Juruá, Madeira, Negro, Purus, and Xingu rivers.
- River drains into: Atlantic Ocean, on the northeastern coast of Brazil

CHANDIGARH

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4/4

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