

Factly Weekly

Compilation

2024

**For UPSC CSE Prelims
Exam**

4th Week

October 2024

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UPSC Syllabus: Governance

Supreme Court judgment addressing CSEAM in India

Context: The article discusses the Supreme Court's recent judgment on child sexual exploitative and abuse material (CSEAM). It emphasizes the seriousness of the issue, India's alarming involvement, and the need for strict action against both viewing and producing such content.

What is the Supreme Court's judgment on CSEAM?

The Supreme Court ruled that viewing child sexual exploitative and abuse material (CSEAM) is a serious offense. Even watching it once is a crime. The Court stated that demand for such material fuels its production, making the crime more heinous.

How widespread is CSEAM in India?

1. India leads the world in uploading Child Sexual Exploitative and Abuse Material (CSEAM), according to reports.
2. The National Centre for Missing & Exploited Children reported 46,99,515 CSEAM videos uploaded in India.
3. Cases of child pornography rose significantly, from 44 in 2018 to 1,171 in 2022, as per National Crime Records Bureau data.
4. Local children, aged 5 to 16, are frequently involved, with covert videos taken using spy cameras.
5. Kerala Police seized over 200 devices containing illegal content, revealing growing CSEAM activity on platforms like WhatsApp and Telegram.

What actions have been taken to combat CSEAM?

1. **MoU with NCMEC:** India signed a Memorandum of Understanding (MoU) with the National Centre for Missing & Exploited Children (NCMEC), U.S. This agreement facilitates the receipt and analysis of Cyber Tipline Reports (CTR) related to CSEAM activities, which are shared with respective states for further action.
2. Kerala Police seized over 200 devices containing illegal content, revealing growing CSEAM activity on platforms like WhatsApp and Telegram.

How does CSEAM impact children?

CSEAM victims often don't realize they've been exploited until much later. The knowledge that their abuse is being viewed repeatedly causes lifelong trauma. This exploitation affects all of society, as it perpetuates a culture of treating children as objects.

Way forward

While prosecuting offenders is essential, long-term prevention through sex education and awareness is crucial. Schools, governments, and law enforcement must work together to create safe environments for children online and offline.

Importance of educating students about the Constitution

Context: The article emphasizes the importance of educating students about the Constitution. It highlights its role in shaping collective consciousness, fostering national identity, celebrating diversity, promoting social justice, and empowering people, especially as India marks 75 years of its adoption.

What is the Current State of Higher Education in India?

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1. India has over 40 million students in higher education and 1.5 million faculty members.
2. There are more than 1,100 universities and nearly 50,000 colleges.
3. In 1947, India had only 20 universities and 500 colleges, with 2.5 lakh students and 20,000 faculty members.
4. Higher education is now accessible to more than just the elite.
5. Universities play a vital role in shaping India's identity, diversity, and social justice.

What are the challenges of education in India?

1. **Quality of Education:** A focus on STEM subjects alone cannot drive the necessary transformation in society's value system. Broader education on the Constitution is essential.
2. **Lack of Constitutional Awareness:** Schools and universities often fail to teach the values and importance of the Indian Constitution, which is crucial for nation-building and social transformation.
3. **Diversity and Inclusion:** While the Constitution promotes equality, higher education must better incorporate lived experiences of diversity to build informed citizens.

Why should universities educate students about the Constitution?

1. **Promoting Collective Consciousness:** The Constitution binds India's diverse population. With over 80% illiteracy at independence, universities now must shape this consciousness to build a progressive, unified nation.
2. **Identity Creation:** The Constitution fosters an Indian identity that respects socio-cultural diversity. It promotes "constitutional patriotism" through education, reflecting values like equality and freedom, as seen in India's pluralistic identity.
3. **Celebrating Diversity:** Universities must promote diversity through lived experiences. This builds an enlightened citizenry by allowing students to engage with diverse perspectives.
4. **Empowering Citizens:** The Constitution abolished untouchability (Article 17), emphasizing liberty, equality, and fraternity. Universities are ideal places to teach these values, shaping a socially aware and empowered population.
5. **Advancing Social Justice:** Social justice is a core theme of the Constitution. Universities, by embedding constitutional values, can drive societal transformation and create a new generation committed to equality, aligning with India's evolving educational ecosystem of over 40 million students.

Supreme Court's decision allowing Indian states to tax industrial alcohol

Context: The article discusses the Supreme Court's decision allowing Indian states to tax industrial alcohol. This decision, favoring states' revenue autonomy, reverses a past ruling. It follows a similar July verdict, supporting state royalties on mining, highlighting states' financial independence.

What are the issues with industrial alcohol taxation?

1. **Historical Restrictions:** A 1990 Supreme Court ruling in *Synthetics & Chemicals Ltd vs State of Uttar Pradesh* restricted states from taxing industrial alcohol, limiting their revenue potential from this lucrative source.

2. **Revenue Needs Post-GST:** States argue for increased revenue sources, especially after GST centralization. Industrial alcohol, essential in sectors like biofuels, sanitizers, and the food industry, provides an untapped income stream for states.
3. **Constitutional Interpretation:** The case hinged on whether industrial alcohol qualifies as “intoxicating liquor” under the State List 8 in the Seventh Schedule, which allows states to tax “intoxicating liquors.” This debate led to legal ambiguity over states’ taxation rights.

What is the recent judicial view on the term “intoxicating liquor”?

1. The Supreme Court recently ruled that states can tax industrial alcohol, overturning the 1990 *Synthetics & Chemicals Ltd vs State of Uttar Pradesh* decision.
2. Chief Justice DY Chandrachud argued for a broad interpretation of “intoxicating liquor” in the Seventh Schedule, allowing states to include industrial alcohol in this category if it causes intoxication.
3. Justice B V Nagarathna dissented, stating industrial alcohol, meant for non-consumption uses like biofuels and sanitizers, should not be included.
4. The ruling strengthens state revenues, especially vital in the GST era, when states seek additional revenue sources.

National Pharmaceutical Pricing Authority of India (NPPA)

Why in news?

Recently, the National Pharmaceutical Pricing Authority of India (NPPA) announced a 50% increase in ceiling prices for eight commonly used drugs, including those for asthma, tuberculosis, bipolar disorder, and glaucoma.

The government cited “extraordinary circumstances” and “public interest” as the rationale for this decision. The NPPA emphasized the need to ensure that essential drugs remain available without compromising affordability.

National Pharmaceutical Pricing Authority of India (NPPA)

1. About: The National Pharmaceutical Pricing Authority (NPPA) is a regulatory agency established in 1997 by the Government of India to oversee the pricing of pharmaceuticals in the country.

2. Operates under: The Ministry of Chemicals and Fertilizers and plays a crucial role in ensuring that essential drugs remain affordable and accessible to the public.

3. Objectives: The primary objectives of the NPPA include:

i) Price Regulation: To regulate the prices of essential drugs and ensure that they are available to consumers at reasonable rates.

ii) Availability Assurance: To prevent shortages of essential medications by monitoring and controlling pricing.

iii) Public Health Promotion: To support public health initiatives by maintaining the affordability of medicines critical for healthcare.

4. Regulatory Framework: The NPPA operates under the **Drug Price Control Order (DPCO)**, which is issued under the **Essential Commodities Act**. This framework empowers the NPPA to:

i) Fix ceiling prices for scheduled formulations of drugs.

ii) Adjust prices based on various factors, including the Wholesale Price Index (WPI).

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iii) Respond to extraordinary circumstances that may necessitate price hikes or revisions.

Section 19 of the DPCO allows the government to revise drug prices under extraordinary circumstances, regardless of the annual wholesale price index. Typically, the NPPA adjusts drug prices annually based on the Wholesale Price Index (WPI) for the previous year.

5. Functions: Key functions of the NPPA include:

i) Monitoring Drug Prices: Regularly tracking and analyzing the prices of pharmaceutical products in the market.

ii) Price Fixation: Setting ceiling prices for scheduled drugs to prevent excessive pricing by manufacturers.

iii) Handling Applications: Reviewing and processing applications from pharmaceutical companies seeking price revisions due to increased production costs or market conditions.

iv) Enforcement: Ensuring compliance with pricing regulations and taking action against violators, including recovering excess amounts charged.

6. NPPA's Role and Mechanism

i) Regulatory Authority: The NPPA regulates drug prices under the Drug Price Control Order (DPCO), as per the Essential Commodities Act.

ii) Decision Process: The price hike followed deliberations in a meeting held on October 8, 2023.

iii) Extraordinary Powers: The NPPA invoked extraordinary powers under Para 19 of the DPCO, which allows for price adjustments in exceptional situations.

Standard Veterinary Treatment Guidelines (SVTG)

Why in news?

The Union Ministry of Animal Husbandry recently released the Standard Veterinary Treatment Guidelines (SVTG).

About the guidelines

1. About: It is the first comprehensive set of guidelines covering nearly all animal and bird diseases. It is designed to lower residues of antibiotics, hormones, and other drugs in animal-source foods (ASFs), contributing to safer food and better soil health.

2. It is envisioned as a tool to achieve consistent health standards in animals, prevent excessive medication, and enhance food safety.

3. Developed by: Ministry of Animal Husbandry

4. Objective: To regulate and reduce antibiotic use in treating diseases in livestock and poultry.

5. Aims:

i) To minimize antimicrobial resistance (AMR) by promoting regulated and effective treatments.

ii) Incorporates detailed information on drug usage, including dosages, treatment duration, predicted drug requirements, withdrawal periods, and potential side effects.

6. Integration of Ayurvedic and Ethnoveterinary Medicine: It includes ethnoveterinary practices and Ayurvedic drugs to provide cost-effective treatment alternatives for marginal and small-scale farmers.

7. Economic and Environmental Impact: It is expected to reduce treatment costs for farmers by encouraging the use of more affordable medicines.

8. It also aims to support veterinary professionals, animal health workers, and farmers by providing precise, quality treatment options.

9. SVTG emphasizes rational drug use, particularly for managing bovine mastitis, where validated herbal treatments have shown effectiveness. It is expected to significantly reduce AMR risk and contribute to better health management practices across the livestock and poultry sectors in India.

Launch of CRS Mobile App

Why in news?

Recently, the Union Home Minister launched the Civil Registration System (CRS) mobile app.

About the Civil Registration System (CRS) mobile app

1. About: CiviThe I Registration System (CRS) was developed by the Registrar General and Census Commissioner of India.

2. Aim: To integrate technology into governance for improved service delivery. It aims to make the registration process seamless, reducing time and hassle for users.

3. Features:

i) The app allows citizens to register births and deaths at any time, from any location, and in their respective State's official language.

Note: Under the Registration of Births and Deaths (Amendment) Act, 2023, all births and deaths reported from October 1, 2023, must be registered digitally via the central portal (dc.crsorgi.gov.in).

ii) Digital Birth Certificate: The app generates a single, comprehensive digital birth certificate. This document serves as official proof of date of birth for multiple uses, including educational admissions, government jobs, and marriage registrations.

iii) Centralized Database Benefits: The app's centralized system aids in updating national databases, such as the National Population Register (NPR), and facilitates management of ration cards, property registration, and electoral rolls.

Note: NPR data was initially gathered in 2010 and updated in 2015, includes records of 119 crore residents, forming a foundational step for creating the National Register of Citizens (NRC).

UPSC Syllabus: Nation and polity

Indian Cyber Crime Coordination Centre (I4C)

Why in news?

The Ministry of Home Affairs (MHA) has issued a significant alert concerning illegal payment gateways established through mule bank accounts through its Indian Cyber Crime Coordination Centre (I4C). These accounts are being exploited by transnational cybercriminals for large-scale money laundering operations.

About Indian Cyber Crime Coordination Centre (I4C)

1. About: The Indian Cyber Crime Coordination Centre (I4C) is an initiative under the Ministry of Home Affairs in India, launched in January 2020 to address the growing concerns of cybercrime within the country.

2. Objective: The objective of I4C is to create a centralized system for the detection, prevention, and investigation of cybercrimes, which have been on the rise with increased digitization.

Key Functions and Features of I4C

1. Nationwide Cybercrime Reporting Portal: I4C has set up a cybercrime reporting portal which allows citizens to report incidents of cyber fraud, financial scams, harassment, and other online crimes.

This centralized platform helps law enforcement agencies receive complaints and respond swiftly. The portal also categorizes cyber complaints, making it easier to address urgent cases, such as child abuse material or financial fraud.

2. Coordination Across Jurisdictions: Cybercrime often crosses state and international borders, necessitating strong coordination among agencies. I4C acts as a bridge among different law enforcement agencies and state police departments, helping coordinate efforts to investigate and tackle cyber threats that require cross-jurisdictional cooperation.

3. Capacity Building and Skill Development: I4C emphasizes training by organizing workshops, certification programs, and seminars to build the capacity of officers across states.

4. National Cybercrime Threat Analytics Unit (TAU): This unit under I4C is responsible for real-time threat assessment and analysis. By gathering data on evolving cyber threats and attack patterns, the TAU provides intelligence that law enforcement agencies can use to preempt cyberattacks.

5. Collaboration with Private Sector: I4C collaborates with technology companies, financial institutions, and cybersecurity firms recognizing that the private sector plays a critical role in the digital ecosystem. Through these partnerships, I4C gains insights into technological advancements and can respond to emerging threats more effectively.

6. Public Awareness and Outreach: I4C also emphasizes raising awareness about cyber hygiene among citizens. Through social media campaigns, workshops, and public service announcements, I4C educates people about safe online practices, such as strong password usage, recognizing phishing scams, and securing personal devices.

7. Cyber Crime Research and Innovation Centre: I4C includes a research division focused on innovations in cybersecurity to keep pace with rapid technological changes. This center explores the latest tools, techniques, and frameworks to protect against cyber threats and constantly seeks to enhance India's cyber defense capabilities.

Significance of I4C

i) I4C's establishment marks a substantial step toward creating a robust national cybersecurity framework in India.

ii) I4C provides a structured approach to addressing these issues and also reinforces India's commitment to cybersecurity, which is crucial for digital trust and economic stability.

UPSC Syllabus: Science and technology

BRIC-National Agri-Food Bio-Manufacturing Institute (BRIC-NABI)

Why in news?

Recently, India's first Biomanufacturing Institute was inaugurated the "BRIC-National Agri-Food Bio-Manufacturing Institute" (BRIC-NABI), in Mohali.

The new institute aims to revolutionize India's agri-food sector through biotechnology, aligning with the vision of a "Viksit Bharat" (Developed India).

About BRIC-National Agri-Food Bio-Manufacturing Institute (BRIC-NABI)



Source: PIB

- 1. About:** The BRIC-National Agri-Food Bio-Manufacturing Institute (BRIC-NABI) is an innovative institution dedicated to advancing bio-manufacturing in the agri-food sector. It aligns with India's "Make in India" initiative, fostering self-reliance and inclusive economic growth.
- 2. Aim:** It aims to streamline the path from research to commercialization, focusing on high-yield crops, biofertilizers, and biopesticides.
- 3. Focus:** The institute's work primarily focuses on developing bio-based solutions that support sustainable agriculture and enhance food quality and safety.
4. This includes research into microbial fermentation, precision fermentation, and other biotechnological approaches that can improve crop yields, reduce the reliance on chemical inputs, and generate alternative protein sources.
5. BRIC-NABI's role also involves creating a supportive ecosystem for start-ups and established companies looking to innovate within bio-manufacturing.
6. It was formed from the merger of the National Agri-Food Biotechnology Institute (NABI) and the Center of Innovative and Applied Bioprocessing (CIAB).
7. The BioNest Incubation Centre was launched at BRIC-NABI to nurture startups in agriculture, food, and bioprocessing. It is public-private collaboration hub aimed at empowering youth, women, and farmers, supporting faster commercialization of agri-tech innovations.

DF-26 Missile

Why in news?

Recent reports, including SAR imagery analysis from September 2024, indicate that China has continued to expand its DF-26 capabilities, with 59 TELs observed at the Beijing Xinghang Electromechanical Equipment Factory.

About DF-26 missile



Figure 1. Source: Eurasian Times

1. The DF-26 missile is a critical component of China's intermediate-range ballistic missile arsenal, has become a centerpiece in the strategic and tactical doctrine of the People's Liberation Army Rocket Force (PLARF).

2. It is nicknamed the "Guam Express"

due to its range of over 3,100 miles. The DF-26 missile is capable of reaching key U.S. installations in the Indo-Pacific region, including Guam.

3. It has dual-use capability and it is able to switch between nuclear and conventional warheads. It allows it to target a broad range of assets, both on land and at sea.

4. It has been manufactured by the China Aerospace Science and Technology Corporation (CASC).

5. The DF-26 provides flexibility in warfare. Its ability to threaten U.S. Carrier Strike Groups and other high-value naval assets has garnered significant attention.

6. The DF-26's rapid-deployment capabilities including its transporter-erector-launchers (TELs) helps in positioning and launching missiles with minimal preparation time.

7. The missile's versatility in target selection and warhead type allows it to strike both terrestrial and maritime threats effectively, including naval groups critical to U.S. power projection.

UPSC Syllabus: Defence

Adamyia and Akshar Fast Patrol Vessels (FPVs)

Why in news?

Recently, Goa Shipyard Ltd. (GSL) launched two new Fast Patrol Vessels (FPVs) named 'Adamyia' and 'Akshar' for the Indian Coast Guard (ICG).

About Fast Patrol Vessels (FPVs)



Figure 2. Source: PIB

1. These vessels were constructed with over 60% indigenous content. It is aligned with India's mission towards self-reliance in defence also known as 'Aatmanirbharta'.

2. The vessels are part of a contract signed between GSL and the Indian Coast Guard for the construction of eight FPVs.

3. For the first time, two vessels were launched

simultaneously using a state-of-the-art Ship Lift System.

4. Roles and Responsibilities of FPVs: The primary missions of these FPVs include the protection, monitoring, control, and surveillance of offshore assets and island territories, enhancing India's maritime security capabilities.

Features of FPVs

1. Each FPV is 52 meters in length and 8 meters in breadth, capable of reaching a maximum speed of 27 knots.
2. They are equipped with a Controllable Pitch Propeller-based propulsion system and have a displacement of 320 tons.
3. The ships have been constructed under stringent standards, obtaining dual certification from the American Bureau of Shipping and the Indian Register of Shipping.

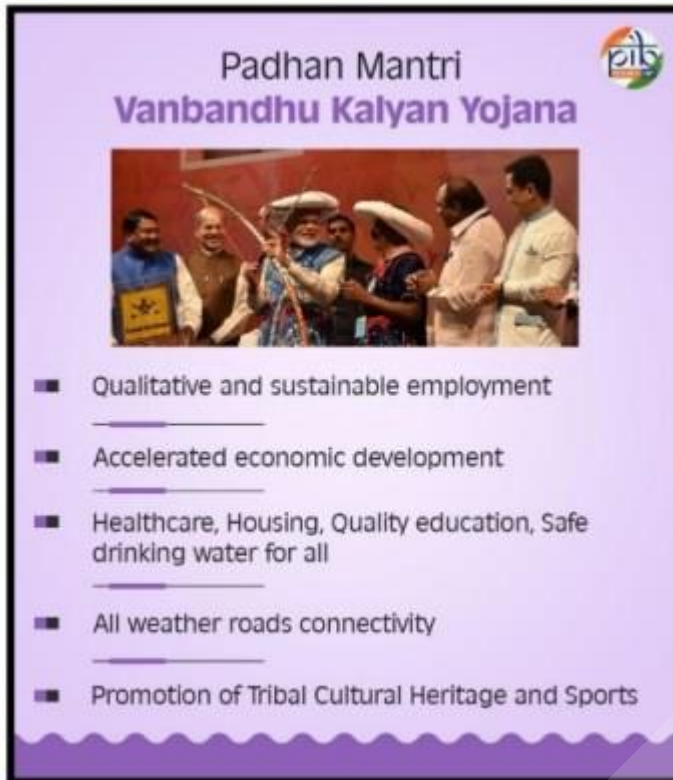
UPSC Syllabus: Science and technology(Defence)

Pradhan Mantri Vanbandhu Kalyan Yojana (PMVKY)

Why in news?

Pradhan Mantri Vanbandhu Kalyan Yojana (PMVKY) is a landmark scheme for developing and empowering Tribal Communities in India.

About Pradhan Mantri Vanbandhu Kalyan Yojana (PMVKY)



1. About: The Pradhan Mantri Vanbandhu Kalyan Yojana (PMVKY) was launched on October 28, 2014 to address the socio-economic challenges faced by India's tribal communities, who constitute about 8.9% of the country's population.

2. Aim: The scheme aims to promote inclusive development by providing financial support and fostering sustainable empowerment for tribal communities. It also focuses on preserving the cultural heritage of these communities.

3. Objectives:

i) The primary objective of the PMVKY is to close socio-economic gaps and provide equitable development opportunities for tribal populations across India.

ii) The scheme focuses on sustainable livelihoods, improved education and healthcare, and cultural preservation,

emphasizing that tribal communities should have equal opportunities to thrive.

Six Key Components of PMVKY

1. Pradhan Mantri Adi Adarsh Gram Yojana (PMAAGY): The Pradhan Mantri Adi Adarsh Gram Yojana (PMAAGY) focuses on the integrated development of 36,428 villages with significant tribal populations. This initiative aims to improve critical infrastructure such as road connectivity, digital access, healthcare, education, and sanitation in these villages.

2. Development of Particularly Vulnerable Tribal Groups (PVTGs): This component aims to uplift the most marginalized tribal groups, known as Particularly Vulnerable Tribal Groups (PVTGs), by enhancing their living conditions and preserving their unique cultural heritage.

The Pradhan Mantri PVTG Development Mission has been launched to improve housing, water access, sanitation, education, and connectivity for PVTGs.

3. Support to Tribal Research Institutes (TRI): The scheme provides financial support to Tribal Research Institutes (TRIs) to facilitate research and documentation related to tribal communities. This support is intended to strengthen the knowledge base concerning tribal cultures, socio-economic challenges, and the impact of various policies, helping state governments create more informed development strategies.

4. Pre-Matric Scholarships: The Pre-Matric Scholarship scheme is designed to support tribal students in grades IX and X from families with a parental income of up to ₹2.5 lakhs.

The program aims to alleviate financial barriers to education, ensuring that students can continue their studies. The central government contributes 75% of the funding for most states, increasing to 90% for North Eastern and hilly states, while Union Territories receive 100% funding from the central government.

5. Post-Matric Scholarships: The Post-Matric Scholarship scheme follows similar terms as the Pre-Matric scheme but is intended for Scheduled Tribe students who pursue education beyond class 10. This support helps ease the financial burden on families, encouraging students to continue their academic journey and achieve higher educational qualifications.

6. Administrative Assistance for Project Management Units: To ensure the effective monitoring and implementation of tribal welfare schemes, PMVKY provides funds to establish project management units within state governments. These units are responsible for overseeing the successful delivery of benefits under PMVKY and ensuring that the intended outcomes are achieved.

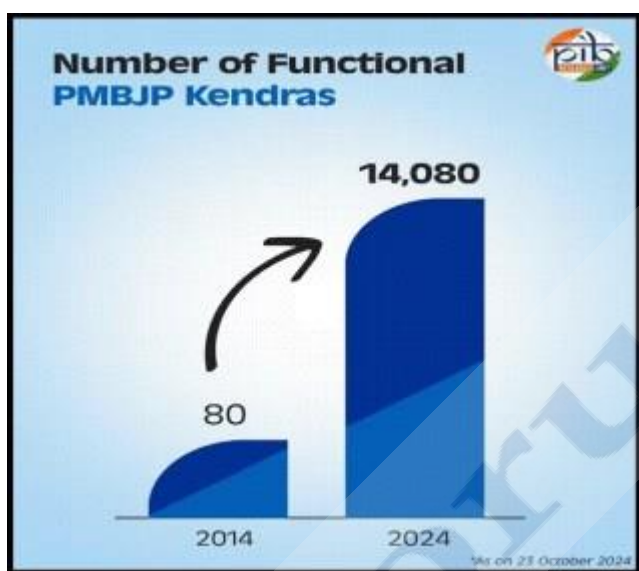
UPSC Syllabus: Schemes and programmes

Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP)

Why in news?

The Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) achieved a major milestone, with Janaushadhi medicines worth Rs. 1,000 crore sold during the 2024-25 fiscal year up until October 20, 2024.

About Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP)



1. PMBJP was launched in November 2016 to provide affordable, high-quality generic medicines across India.

2. **Objective:** Ensure access to essential healthcare without the high financial burden often associated with branded drugs.

3. **Impact:** Promotes health equity by offering medications at reduced prices while maintaining quality.

Key Aims and Objectives:

1. Public Awareness:

i) Educate citizens on the benefits of generic medicines, emphasizing that affordability does not compromise quality.

ii) Dispels the myth that higher prices equate to better quality.

2. **Encouraging Generic Prescriptions:** It inspires healthcare professionals, particularly in government hospitals to prescribe cost-effective generic alternatives.

3. **Accessibility:** It expands access to generic medicines across diverse therapeutic categories. It ensure availability of essential healthcare products, especially for marginalized communities.

Achievements of PMBJP:

1. **Sales Milestone:** In FY 2024-25, PMBJP achieved sales worth ₹1,000 crore by October 2024, two months ahead of the previous year's achievement. The initiative sold ₹200 crore worth of medicines in September 2024 alone, reflecting its increasing popularity.

2. **Expansion of Janaushadhi Kendras (JAKs):** From 80 JAKs in 2014, the number grew to over 14,000 by October 2024—an increase of over 170 times in a decade. Currently, nearly 1 million people visit JAKs daily for affordable medicines.

Commitment to Quality

1. Stringent Quality Assurance: Medicines are sourced from manufacturers adhering to WHO Good Manufacturing Practices (GMP). Every batch undergoes rigorous testing in NABL-accredited labs to ensure safety and efficacy.

2. Affordable Pricing: Medicines sold through PMBJP are generally 50% lower in cost, with some priced 80% to 90% cheaper than branded alternatives. This affordability plays a critical role in reducing healthcare expenses for citizens, especially for those in need.

Livestock Census and its purpose

Why in news?

Recently, Union Minister of Fisheries, Animal Husbandry, and Dairying launched the 21st Livestock Census in New Delhi.

About the Livestock Census

1. The Livestock Census is a large-scale survey conducted every five years to record the count and demographics of domesticated, stray, and poultry animals across India.
2. It was initiated in 1919. The census has reached its 21st edition, with data collection scheduled between October 2024 and February 2025.

Objectives of the Livestock Census

- 1. Economic Insight:** The census data will help measure the Gross Value Added (GVA) of the livestock sector, which contributes around 4.7% to the national GVA and about 30% to the agricultural sector's GVA.
- 2. Policy Development:** Insights from the census support the development and refinement of policies related to animal husbandry and sustainable growth of India's livestock sector.
- 3. Sustainable Development Goals (SDGs):** The census provides crucial data for tracking UN SDGs, particularly Goal 2 (Zero Hunger) that contributes to food and nutrition security and Target 2.5 which aims to maintain genetic diversity within food production.

Scope of the 21st Livestock Census

- 1. Enumerator Task Force:** About 87,000 enumerators will cover approximately 30 crore households and establishments, including residential areas, gaushalas (cattle shelters), dairy farms, poultry farms, veterinary institutions, and defense establishments.
- 2. Animal Categories:** The census will account for 16 animal species, such as: Cattle, buffalo, mithun, yak, sheep, goats, pigs, camels, horses, ponies, mules, donkeys, dogs, rabbits, and elephants.
Poultry types including fowl, chicken, duck, turkey, geese, quail, ostrich, and emu.
- 3. Breed Information:** Information on 219 indigenous animal breeds, as recognized by ICAR-NBAGR, will be gathered.

New Features in the 21st Livestock Census

- 1. Digital Collection:** Data collection will be digital, utilizing a mobile app, a digital dashboard for monitoring, geolocation data capture, and software for report generation.
- 2. Enhanced Data Points:**
 - i) Pastoral Data:** First-time data on pastoral animals and pastoralists, including their socioeconomic status and livestock holdings.

ii) **Income Source:** Detailed information on households with livestock as a primary income source.

iii) **Stray Animal Details:** Inclusion of gender data for stray cattle.

Key Findings from the 2019 Livestock Census

1. **Total Livestock Population:** 535.78 million animals.

2. **Major Populations:**

Animals	Population
Cattle	192.9 million
Goats	148.88 million
Buffaloes	109.85 million
Sheep	74.26 million
Pigs	9.06 million
Other animals	0.23% of the total livestock population

UPSC Syllabus: Indian Economy

Venture Capital Fund

Why in news?

The Union Cabinet has approved the establishment of a Rs. 1,000 crore Venture Capital Fund specifically for the space sector. This initiative will be managed under the aegis of the Indian National Space Promotion and Authorization Center (IN-SPACe).

About the Venture Capital Fund

1. IN-SPACe was established as part of India's 2020 space sector reforms to promote private sector participation in space activities.
2. The proposed Rs. 1,000 crore Venture Capital Fund aims to support the growth of India's space economy, currently valued at \$8.4 billion, with a target to reach \$44 billion by 2033.
3. This fund addresses the need for risk capital in a high-tech sector, as traditional lenders often hesitate to finance startups. The fund is expected to support approximately 40 startups.
4. The government-backed fund will boost investor confidence and signal a commitment to advancing space reforms, operating as an Alternative Investment Fund under SEBI regulations to provide early-stage equity to startups.

5. The fund will be deployed over five years from the commencement of operations. The average annual investment is expected to range from Rs. 150 to 250 crore, depending on available opportunities.

6. Expected Benefits

- i) **Multiplier Effect:** Attracting additional funding from private investors for later-stage development.
- ii) **Company Retention:** Reducing the trend of Indian companies moving abroad.
- iii) **Space Economy Expansion:** Aiming for a five-fold increase in the Indian space economy over the next decade.
- iv) **Advancements in Technology:** Strengthening India's leadership through private sector engagement.
- v) **Enhanced Global Competitiveness:** Positioning India favorably in the global space market.
- vi) **Support for Atmanirbhar Bharat:** Contributing to national self-reliance goals.

7. Employment Generation Potential

- i) The fund is expected to create jobs across the entire space supply chain—upstream, midstream, and downstream.
- ii) Investments may lead to hundreds of direct jobs in fields like engineering, software development, data analysis, and manufacturing.
- iii) Indirect job creation could extend to thousands in supply chains, logistics, and professional services.
- iv) A strong startup ecosystem will not only create jobs but also develop a skilled workforce, driving innovation in the space sector.

Coral Triangle

Why in news?

A report released on October 26 at the 16th Conference of Parties (COP16) to the Convention on Biological Diversity (CBD) highlighted the serious dangers that fossil fuel expansion poses to the Coral Triangle which is one of the most biodiverse marine areas in the world.

About Coral Triangle



1. Location: It spans six countries in Southeast Asia and the Pacific – Indonesia, Malaysia, the Philippines, Papua New Guinea, Solomon Islands, and Timor-Leste.

Figure 3. Source: Underwater Clicks

- 2. Biodiversity:** It is often referred to as the “Amazon of the seas.” It holds the highest marine biodiversity in the world including around 76% of all known coral species and over 2,000 species of reef fish.
- 3. Marine Ecosystems:** It encompasses critical ecosystems like coral reefs, mangroves, and seagrass beds, supporting a vast array of marine life, including turtles, sharks, and various fish species.
- 4. Ecological Importance:** The Coral Triangle is crucial for maintaining global marine biodiversity and resilience, playing a vital role in marine and coastal ecosystems.
- 5. Human Dependency:** Over 120 million people live in the Coral Triangle area, depending on its resources for food, livelihood, and economic activities, particularly through fishing and tourism.
- 6. Threats:** Faces significant threats from overfishing, climate change, pollution, and habitat destruction, particularly coral bleaching due to rising sea temperatures.
- 7. Conservation Efforts:** The Coral Triangle Initiative (CTI) was established to promote conservation, focusing on sustainable fisheries, marine conservation, and adaptation to climate change impacts.
- 8. Global Significance:** It has been recognized as a global priority for conservation due to its ecological wealth and the critical role it plays in ocean health and biodiversity.

UPSC Syllabus: Environment

Key Findings on Biodiversity Decline in Protected Areas

Why in news?

A recent study by the Natural History Museum (NHM) in London has uncovered that biodiversity is declining faster within protected areas than outside them. The research highlights that designating land as “protected” does not guarantee positive outcomes for biodiversity preservation. Here’s a breakdown of the findings and their implications:

Key findings of study

- 1. Objective of the study:** Examine biodiversity trends in protected versus non-protected areas.
- 2. Measure Used for the study:** Biodiversity Intactness Index (BII), which gauges the remaining natural biodiversity in a region.
- 3. Global Decline:** The BII has dropped by 1.88 percentage points globally from 2000 to 2020.
- 4. Critical Biodiversity Areas (CBAs):** Within critical ecosystems (wetlands, unique habitats), 22% are protected.
- 5. Protected vs. Non-Protected Decline:** In CBAs, biodiversity declined by 2.1 percentage points in protected areas compared to 1.9 points in non-protected areas.

Why Protected Areas Are Failing

- 1. Narrow Focus of Protection:** Many protected areas target specific species rather than entire ecosystems, leading to incomplete conservation efforts.
- 2. Pre-existing Degradation:** Some areas were already degraded when they were designated as protected, which might contribute to the continued biodiversity loss.
- 3. Resource Exploitation:** Oil, gas, and mining concessions overlap with protected lands, particularly in biodiversity-rich regions like the Conkouati-Douli National Park in the Republic of Congo, where 65% of the park is used for resource extraction.

4. Climate Change Impacts: The climate crisis, through increased droughts and wildfires, exacerbates biodiversity loss in protected areas. Notably, Australian national parks experienced significant wildfire destruction in 2019.

Recommendations for Policymakers

1. Strengthen Conservation Efforts: Policymakers must go beyond simply designating land as protected; conservation should aim for robust ecosystem preservation.

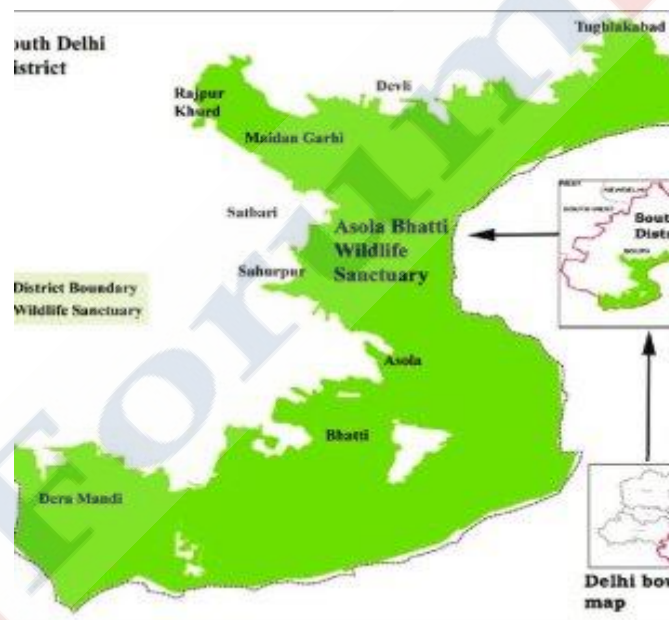
2. Focus on 30×30 Goal: Countries should remain committed to the “30×30” target from Biodiversity COP15 to conserve 30% of lands and oceans by 2030, with a stronger emphasis on ecosystem-level protection.

Asola Bhatti Wildlife Sanctuary

Why in news?

Recently, the Delhi High Court ordered local authorities to prioritize relocating all monkeys from the Capital to the Asola Bhatti Wildlife Sanctuary.

About Asola Bhatti Wildlife Sanctuary



Source: Researchgate

Aspects	Description
About	<p>1. The Asola Bhatti Wildlife Sanctuary is a protected area located on the southern edge of Delhi and northern part of Haryana, covering parts of the Aravalli Hills. It covers an area of 32 sq kms.</p> <p>2. It is the only protected area representing the northeastern, rolling outliers as a landform of the country’s oldest hill ranges, the Aravallis.</p>

Climate	The climate of the sanctuary is characterized by extreme summer heat alternating with great winter cold.
Vegetation	The vegetation consists mainly of open-canopied, thorny scrub with xerophytic adaptations like thorny appendages and waxy, succulent, or tomentose leaves.
Flora	<ol style="list-style-type: none"> 1. It include Dhau (<i>Anogeissus pendula</i>), Kumtha (<i>Senegalia senegal</i>), and Palash (<i>Butea monosperma</i>) forests, as well as grasslands on slopes and open areas. 2. <i>Prosopis juliflora</i>, along with invasive species like <i>Lantana camara</i> and <i>Parthenium hysterophorus</i>, dominates degraded areas.
Fauna	<ol style="list-style-type: none"> 1. It includes 25 mammal species (e.g., Leopard, Striped Hyena), 250 bird species, including critically endangered and vulnerable species. 2. It also includes 28 raptor species (14 protected under India's Wildlife Protection Act), 24 reptile species, 86 butterfly species, and 15 dragonfly species. 3. It is home to Golden Jackals, Striped Hyenas, Indian Crested Porcupines, Civets, Jungle Cats, Snakes, Monitor Lizards, Mongooses, and more. 4. Notable birds including the rare Red-headed Vulture, Black Eagle, and Northern Goshawk can be seen here.

Cyclone Dana

Why in news?

According to the Indian Meteorological Department (IMD), Cyclone Dana is expected to strengthen into a severe cyclonic storm and make landfall in Odisha.

About Cyclone Dana:

1. Cyclone Dana is currently over the east-central Bay of Bengal and is expected to intensify into a severe cyclonic storm. The name "Dana" was suggested by Qatar and means "generosity" in Arabic.
2. It is predicted to make landfall between Bhitarkanika National Park and Dhamra port in Odisha between the night of October 24 and the morning of October 25.
3. **Expected Wind Speeds:** The cyclone is likely to generate wind speeds of 100-110 kmph, with gusts reaching 120 kmph.

4. Areas Affected:

In Odisha, the districts expected to receive heavy rainfall include Baleswar, Mayurbhanj, Bhadrak, Kendrapara, Jagatsingpur, Kendujhar, Jajpur, Cuttack, Dhenkanal, Khorda, and Puri.

In West Bengal, heavy rainfall is forecast for areas such as South and North 24 Parganas, East and West Medinipur, Jhargram, Howrah, Hooghly, Kolkata, and Bankura.

UPSC Syllabus: Disaster management

Great Eared Nightjar

Why in news?

Nature lovers and bird enthusiasts alike have become fascinated by the Great Eared Nightjar (*Lyncornis macrotis*) due to its unique appearance and unusual behavior.

About Great Eared Nightjar



Aspects	Description
About	<ol style="list-style-type: none">1. The Great Eared Nightjar is scientifically known as <i>Lyncornis macrotis</i>.2. It is native to the dense forests of Southeast Asia, including regions like Thailand, India, and the Malay Peninsula.3. It has unique, dragon-like appearance and nocturnal behavior.
Features	<ol style="list-style-type: none">1. The Great Eared Nightjar is often compared to mythical dragons due to its remarkable appearance, especially when perched.2. It has large, forward-facing eyes set in a prominent head, giving it a striking look.3. The intricate patterning of brown, black, and gray feathers allows it to blend seamlessly into its surroundings, providing excellent camouflage.4. Its long, pointed wings are accentuated with tufted feathers around the head, which resemble “ears” and further contribute to its mythical, dragon-like impression.5. Its feathers are structured to enable silent flight, allowing it to approach prey without detection and to escape potential threats with minimal noise.

Distribution	<ol style="list-style-type: none">1. This species is found in thick forests, woodlands, and mangroves across Southeast Asia, including parts of India, Sri Lanka, the Philippines, and Indonesia.2. The Great Eared Nightjar prefers to roost on the ground or low branches, which enhances its natural camouflage.
Diet	<ol style="list-style-type: none">1. The Great Eared Nightjar's diet consists primarily of insects, including moths, beetles, and other nocturnal insects.2. It can efficiently capture prey in mid-flight equipped with a large mouth.
Breeding	The Great Eared Nightjar lays its eggs directly on the ground instead of building a nest in trees.
Conservation Status and Threats	<ol style="list-style-type: none">1. The Great Eared Nightjar is currently classified as "Least Concern" by the International Union for Conservation of Nature (IUCN).2. Habitat loss due to deforestation and human activity poses a significant threat to its future, despite its current stable status.

UPSC Syllabus: Species in news

Rediscovery of the Giant Salmon Carp in the Mekong River

Why in news?

The giant salmon carp (*Aptosyax grypus*), once thought to be extinct has been spotted three times in the Mekong River in Cambodia in recent years.

About giant salmon carp (*Aptosyax grypus*)



Figure 4. Source: IE

1. The giant salmon carp, scientifically known as *Aptosyax grypus* is a fascinating species native to freshwater habitats in East Asia, particularly in regions like the Amur River basin.

2. These fish are known for their impressive size, with adults typically reaching lengths of up to 1 meter (about 3.3 feet) and weights of over 30 kilograms (66 pounds).

3. Physical Characteristics

- i) Giant salmon carp have a robust, elongated body with a distinctive head shape and large, wide mouth.
- ii) Their coloration varies, usually featuring a silvery or greenish hue, which helps them blend into their freshwater environments.
- iii) They possess barbels (whisker-like structures) near their mouths, aiding in foraging for food along the riverbed.

4. Habitat: These fish thrive in rivers, lakes, and reservoirs, preferring areas with slow-moving water and abundant vegetation. They are often found in regions with rich biodiversity, as they rely on a variety of food sources, including detritus, aquatic plants, and small invertebrates.

5. Diet: Their diet primarily consists of algae, detritus, and small invertebrates, playing a vital role in the ecosystem by helping to control plant growth and nutrient cycling.

6. Conservation Status: While not currently classified as endangered, giant salmon carp face threats from habitat loss, pollution, and overfishing. Conservation efforts are important to maintain healthy populations and protect their natural habitats.

7. Cultural Significance: In some cultures, giant salmon carp are valued not only for their size and taste but also for their role in local traditions and folklore.

They are sometimes featured in fishing tournaments and are appreciated for their challenge to anglers due to their strength and size.

UPSC Syllabus: International organisations

United Nations Interim Force in Lebanon (UNIFIL)

Why in news?

Recently, the UN forces in Lebanon released a statement accusing the Israel Defense Forces (IDF) of intentionally destroying an observation tower and the perimeter fence of a UN post in Marwahin.

About United Nations Interim Force in Lebanon (UNIFIL)

1. **Establish:** The United Nations Interim Force in Lebanon (UNIFIL) was established in 1978 following Israel's invasion of southern Lebanon.

2. **Mandate:** Its primary mandate, as outlined in UN Security Council resolutions 425 and 42 is to confirm the withdrawal of Israeli forces, restore peace and security, and assist the Lebanese government in regaining control over its territory.

3. UNIFIL's mandate was significantly expanded through Resolution 1701, which aimed to support a permanent ceasefire and ensure that no unauthorized arms were present in southern Lebanon.

India's Contribution to UNIFIL

1. India has been a significant contributor to UNIFIL, with its participation beginning in 1998.

2. The Indian battalion, known as INDBATT, currently comprises 903 personnel, making India one of the largest troop contributors alongside Indonesia and Italy.

3. INDBATT has gained recognition for its professionalism and engagement with local communities.

Contribution of INDBATT

1. **Humanitarian Efforts:** INDBATT has undertaken various humanitarian projects, such as building parks and sports facilities, which promote goodwill and community development.

2. **Medical Assistance:** The Indian battalion has provided medical services that are highly valued by local communities, addressing health needs and improving access to healthcare.

3. Local Outreach: INDBATT's local outreach programs include providing IT equipment and other resources to help strengthen community infrastructure, enhancing the living conditions in southern Lebanon.

