

Factly Monthly

Compilation

2024

**For UPSC CSE Prelims
Exam**

February 2024

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Subject: Polity and Nation

The Public Examinations Bill 2024

Why in the news?

Union minister Jitendra Singh introduced the Public Examinations (Prevention of Unfair Means) Bill, 2024 in the Lok Sabha.

About The Public Examinations (Prevention of Unfair Means) Bill, 2024

Background- Many States were not able to declare results of their public examinations on time. This happened due to negative impact of **unfair practices**.

Objective- To bring greater **transparency, fairness** and **credibility** to the public examination systems.

Applicability- The bill is applicable to central recruitment and entrance exams conducted by **Union Public Service Commission (UPSC), Staff Selection Commission (SSC), Railway Recruitment Boards (RRBs), National Testing Agency (NTA) and Institute of Banking Personnel Selection (IBPS)**.

Prescribed punishment- For cheating-**minimum of 3 to 5 years** of imprisonment. For **organised crimes of cheating**, punishment will be **5 to 10 years** of imprisonment and a minimum **fine of Rs 1 crore**.

High level National Technical Committee on Public Examinations- The bill seeks to set up a high level committee to develop protocol for **developing foolproof IT security system** for **online and technology based exams**.

Note- The proposed bill protects **candidates** from its provisions.

National Judicial Academy

Why in the News?

The Supreme Court recently emphasized the lawyers to undergo compulsory training at the National Judicial Academy like the judges. The court **advocated for mandatory training for all advocates**.

What is National Judicial Academy (NJA)?

Aspect	Details
About	It is an independent society, operates under the guidance of the Supreme Court of India.
Location	Its 63-acre campus is situated on the outskirts of Bhopal, with a registered

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	office in Delhi.
Established in	1993 under the Societies Registration Act, 1860.
Mandate	Enhancing the Administration of Justice through Judicial Education, Research, and Policy Development.
Funding	It is fully funded by the Government of India.
Functions	It arranges training sessions to assist judges in their adjudicative responsibilities and in managing court administrative tasks.
Chairman	The Chief Justice of India (CJI) serves as the Chairman of the General Body, Governing Council, Executive Committee, and Academic Council of NJA.
Management	1. The Director of NJA is its main executive officer and is appointed by the Chairman , the Honorable Chief Justice of India. 2. NJA academic staff positions include the Director, one Additional Director (Research), three Professors, six Assistant Professors, six Research Fellows, and six Law Associates.

Revised guidelines for Community radio stations

Why in the News?

Recently, the government has released the revised policy guidelines for setting up community radio stations.

What do the newly revised guidelines say?

1. Increase in the number of stations for an entity- The updated guidelines now **permit one institution to establish up to six stations across various operational districts**. Previously it was restricted to one station.
2. Increase in advertising time and advertisement rates- The **advertising time** for community radio stations has been **raised from 7 minutes per hour to 12 minutes per hour**. Also, the **advertisement rate** has been **increased from Rs 52 to Rs 74 per 10 seconds**.
3. Fixing the validity of Letter of Intent (LOI) - The policy now sets the validity of the letter of intent issued to an organization to **one year**, with an **additional three-month buffer for unforeseen circumstances**.
4. Establishment of Advisory and content committee- The guidelines **require the licensee to establish an advisory and content committee with members from the local community**. It must also be ensured that 50 percent of the committee consists of women.

What are community radio stations and their significance in India?

1. About- Community radio stations (CRSs) are low-power radio stations with a coverage area of approximately 10-15 km radius, depending on the area's geography. They are intended to be **established and managed by local communities**.
2. History in India- India's **first community radio station (CRS)** opened at Anna University's campus in **2004**. Presently, there are 481 CRSs across India, with over 133 becoming operational in the last two years.
3. Significance- Community radio stations provide a platform for disseminating content in localized dialects and regional languages. They address **local, context-specific issues and facilitate discussions using local idioms**.

Article 142 of the Constitution

Why in the News?

The Supreme Court, in its **recent judgment on the Chandigarh mayor election**, utilized its authority under Article 142 of the Constitution to ensure 'complete justice' and uphold the sanctity of electoral democracy.

What is Article 142 of the Constitution?

1. About- Article 142 **grants the Supreme Court discretionary authority**. It **empowers** it to **issue decrees** or **orders deemed necessary to achieve complete justice in any pending cause or matter within its jurisdiction**.
2. Positive utilisation- This provision allows the Supreme Court to exercise wide-ranging powers to ensure justice is served, **even if there is no specific law or provision applicable** to the case at hand.

Significant cases where article 142 was invoked

1. The ban on the sale of alcohol along national and state highways:
 - a. The central **government's notification banned liquor stores only along National Highways**, but the Supreme Court **extended the ban to a distance of 500 meters by using Article 142**.
 - b. Moreover, in the absence of similar notifications from any State governments, the court expanded the prohibition to include State highways.
 - c. Such rulings have raised questions about the court's discretion to invoke Article 142, particularly when fundamental rights of individuals are overlooked.
2. Babri Masjid Case: Article 142 was invoked in the Ram Janmabhoomi-Babri Masjid land dispute, leading to the transfer of the disputed land to a trust to be established by the central government.

Centre Allows Donor Gametes in Surrogacy Rules

Why in the News?

The Centre has recently amended the 2022 surrogacy rules, **allowing couples to utilize donor gametes**. This overturns the ban on donor gametes that was imposed in March 2023.



Figure 1. Source-The Tribune

What are the latest amendments to the 2022 Surrogacy Rules?

1. Medical condition certification of intended couple- According to the latest amendments, if the **District Medical Board certifies** that **either the husband or wife in the intending couple has a medical condition** that requires the use of a donor gamete, **then surrogacy using a donor gamete is permitted**.

Note- **Gametes are reproductive cells** that unite during sexual reproduction to create a new individual.

In humans, **gametes include sperm cells (from males) and egg cells (from females)**.

2. At least one gamete from the intending couple- The use of a donor gamete is permissible under the condition that the child born through surrogacy must possess **at least one gamete from the intending couple**.

3. Single woman (widow or divorcee) directive- The rules also state that a single woman (widow or divorcee) choosing surrogacy **must use her own eggs and donor sperm** for the procedure.

General Diary (GD) Vs First Information Report (FIR)

Why in the News?

The Supreme Court recently ruled that information revealing the occurrence of a cognizable offense **must be documented as a First Information Report ("FIR")** in a book format, **rather than in the General Diary** maintained by the Police under the Police Act, 1861.

What is General Diary (GD)?



Source- Hindustan Times

1. About- The General Diary, also known as Station Diary or Daily Diary in some states, is **kept according to Section 44 of the Police Act, 1861**, or the relevant provisions of state police acts or manuals.

2. Activities covered- It comprises records of significant transactions and events within a police station, such as the **movement of police personnel**, the transfer of responsibilities, **individual arrests**, law enforcement tasks, **visits by senior officers**, and similar occurrences.

3. Section 44 of the Police Act, 1861:

a. It mandates that **every officer in charge of a police station must maintain a general diary** as per the format specified by the State Government.

b. The diary should document all complaints, charges filed, names of arrested individuals, complainants, offenses charged, seized weapons or property, and the names of witnesses examined.

What is a First Information Report (FIR)?

1. About- It is a **written document prepared by a police officer following information provided by a victim or any other individual, either in written form or orally**, regarding the commission of a cognizable offense.

2. Start of investigation- The investigation commences **only after the FIR is filed**.

3. Mentioning under IPC and CrPC- The term FIR is **not specified in the Indian Penal Code (IPC), the Code of Criminal Procedure (CrPC) of 1973**, or any other legislation. **However**, within police regulations or rules, information documented under **Section 154** of the CrPC is referred to as the First Information Report (FIR).

What is the basic difference between FIR and General Diary (GD)?

Aspect	First Information Report (FIR)	General Diary (GD)
Transmittal obligation	A copy of every FIR is forwarded to the higher-ranking officers and the relevant Judicial Magistrate.	GD copy not sent to Magistrate; but sent to higher officer. Magistrate can inspect if necessary.
Signature requirement of complainant	The complainant's signature is taken in the FIR Book when the complaint is submitted to the police station.	There is no such requirement .

Copy complainant to	In the case of F.I.R., a copy of these will be provided to the complainant.	It is an internal police record, not required to be provided to the complainant.
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Subject: International Relations

Codex Committee on Spices and Culinary Herbs

Why in the news?

The 7th session of the Codex Committee on Spices and Culinary Herbs (CCSCH) was held from 29th January 2024 to 2nd February 2024 at Kochi.

About Codex Committee on Spices and Culinary Herbs

Background- The Indian officials had asked for the establishment of an **exclusive Committee** for Spices, Culinary Herbs. This was demanded to ensure **harmony and transparency** in fixing global quality standards for spices, herbs and formulations.

Established-It was established as one of the Commodity Committees **under the Codex Alimentarius Commission (CAC)** in 2013.

Secretariat-India hosts this prestigious Committee since the beginning and **Spices Board of India serves as the secretariat organization.**

Outcome of 7th session-The quality standards for 5 spices, **namely small cardamom, turmeric, juniper berry, allpice and star anise** were finalised.

About Codex Alimentarius Commission

Aspect	Details
Established by	FAO and WHO. Codex Alimentarius Commission (CAC) is also called "Food Code".
Members	It consists of 189 member countries.
Headquarter	It is an international, intergovernmental body which is based in Rome
Funding	The programme of work of the Commission is funded through the regular budgets of WHO and FAO.
Nature of standards	The standards developed by the Committees under the CAC, including the CCSCH, are voluntary in nature.

Significance	1) Its standards are recognized by the WTO to resolve trade disputes concerning food safety and consumer protection . 2) It contributes to harmonization of food standards across the globe. This facilitates fair global trade in food. 3) It ensures food safety to safeguard the health of global consumers .
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About Spice Board Of India

- 1) Established- This is a **statutory body** constituted under **Spices Board Act 1986**.
- 2) Mandate- It has the responsibility of production/development of cardamom and export **promotion of 52 spices shown** in the schedule of the Act.
- 3) Headquarter- The board is headquartered in **Kochi**.
- 4) The board has a state-of-the-art testing laboratory at its headquarters in Kochi. There are also regional laboratories at **Mumbai, Chennai, Delhi, Tuticorin, Kandla and Guntur**.

Weimar Triangle

Why in the News?

Recently, the foreign ministers of Poland, France, and Germany met to discuss reviving the **Weimar Triangle**. They pledged to enhance security and defense capabilities in Europe amidst concerns about Russian aggression spreading in the region.

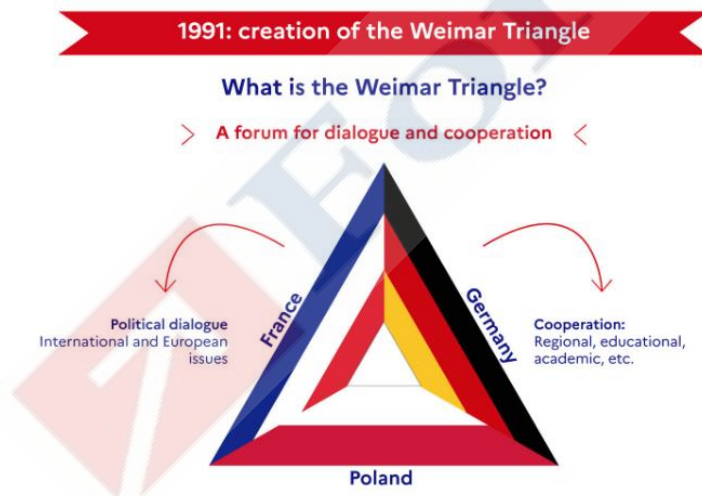


Figure 2. Source- France Diplomatie

What is Weimar Triangle?

1. About - The Weimar Triangle was **created in 1991**. It is a **regional alliance** to promote cooperation **among France, Germany, and Poland**.
2. Origin of name - The name "Weimar" **refers to the city in Germany where the initial meeting took place**.
3. Objective - To **strengthen bonds and encourage cooperation among the three countries**, especially in **politics, economy, and culture**. Also, to tackle the common challenges faced by them.
4. Initial goal - Initially, its focus was on **promoting reconciliation between**

Germany and Poland following World War II.

5. Significance - The forum offers a platform to **discuss regional and global issues** and has had a big impact on European relations and policies.

India rejects EFTA's data exclusivity demand in trade talks

Why in the News?

Recently, India rejected the European Free Trade Association's (EFTA) request for 'data exclusivity' in their ongoing free trade agreement negotiations.

About European Free Trade Association (EFTA)



Source- Wikipedia

Aspect	Details
About	It is an intergovernmental organization established in 1960 through the Stockholm Convention .
Objective	To facilitate free trade and economic integration among its members both within Europe and on a global scale.
Members	Iceland, Liechtenstein, Norway, and Switzerland.
Function	<ol style="list-style-type: none">The organization works alongside the European Union (EU).Unlike the European Union (EU), it does not function as a customs union.All four member states participate in the European Single Market through European Economic Area (EEA) Agreement.
Governance	<ol style="list-style-type: none">The EFTA Council is its top authority, meeting about 8 times yearly at the ambassadorial level and twice yearly at the ministerial level.The EFTA Surveillance Authority (ESA) oversees compliance with European Economic Area (EEA) rules in Iceland, Liechtenstein, and Norway.EFTA Court- It is Located in Luxembourg. It has the authority to resolve both internal and external disputes concerning the implementation, application, or interpretation of the EEA agreement.The EFTA Secretariat is located in Geneva and supports the EFTA Council in managing relations among the 4 EFTA States. It handles the negotiation and operation of EFTA's free trade agreements.

What is Data Exclusivity?

- Data exclusivity **safeguards the clinical trial information of a pharmaceutical company** concerning a particular medication.
- During exclusivity period, **generic competitors cannot use the originator's data** to get approval for similar drugs.

Munich Security conference 2024

Why in the news?

World leaders have gathered for the **Sixtieth** (60th) **Munich Security Conference**, amidst the growing concerns about a continued war in Ukraine and threats to North Atlantic Treaty Organization (NATO) cohesion.

About Munich Security Conference

Description- It is the world's **leading forum** for debating international **security policy**. It is often referred to as the '**Davos of Defence**'.

Objective- Its objective is to build **trust and contribute to the peaceful resolution** of conflicts, by sustaining a continuous and informal dialogue within the **international security community**.

Venue- It has been held in Munich, **Germany**, since **1963**.

Frequency of conference- The conference is held **annually in February**.

Key features-

- 1) It is a venue for **diplomatic initiatives** to address the world's most pressing **security** concerns.
- 2) It brings together **security experts, politicians, military leaders** and the **defence industry** from around the world.
- 3) It publishes the **Munich Security Report**. This is an **annual report** about **figures, maps** and **research** on crucial security challenges.

Mission Aspides

Why in the News?

The **European Union** has recently launched a Red Sea mission named **Mission Aspides**, which aims to protect shipping in the Red Sea region from Yemen's Houthi rebels.

What is the need for a mission in the Red Sea region?

1. The Iran-backed Houthis, who exert control over much of war-torn Yemen, have been **disrupting the vital shipping lane** in the Red Sea region since November 2023.
2. They **claim their actions are in solidarity with Palestinians in Gaza** during the Israel-Hamas conflict.
3. Recently, a Greek-flagged cargo ship owned by the U.S. was attacked twice in the Gulf of Aden, near the Red Sea.
4. The EU states that the **mission Aspides, initially set for one year, is aimed at safeguarding civilian shipping in the Red Sea** and assures that no attacks will be conducted on Yemeni soil.

Grey Zone Warfare

Why in the News?

Recently, at the Raisina Dialogue, Chief of Defence Staff Gen. Anil Chauhan made a statement regarding grey-zone warfare, **specifically in reference to China**.

What is Grey Zone Warfare?

1. Grey Zone Warfare is a **strategy where a country tries to gain an advantage without openly going to war**.
2. It involves **tactics like cyberattacks, misinformation, and economic pressure** to weaken an opponent.
3. China has been skillfully using this strategy, especially against India and neighboring countries.

What are China's Grey Zone Tactics against India?

1. South China Sea Activities- China **employs naval and civilian vessels** to assert its control over the South China Sea. It causes tensions with neighboring countries, including India.
2. Constructing infrastructure in border areas- China builds infrastructure and establishes villages close to India's borders. It **reinforces its territorial assertions and gains strategic benefits**.
3. Investments in digital technologies- China directs investments into apps, media, and various digital platforms within India. This presence in the digital sphere holds the potential to **mold public perceptions and narratives**.

EU sanctions Indian tech Firm-Si2 Microsystems for dual-use items

Why in the News?

The European Union (EU) has recently sanctioned Si2 Microsystems, an Indian tech firm, for its **alleged connections with Russia regarding dual-use items**. Previously, the U.S. also banned it from transferring "dual-use" technology.

Under scanner

European Union's latest sanctions after the second anniversary of the Russia-Ukraine war have reached India

- Si2 Microsystems (Entity number 620) has been banned from transactions within EU for "dual-use" technological goods

- The firm had signed a collaboration with Ministry of Electronics and Information Technology (MeitY) and IIT-Madras for production of silicon chips in October 2023

- It had been in the bankruptcy courts on account of non-payment of debts; owner was on Lookout Circular in 2021 when he sought permission to travel to Russia



Source- The Hindu

What are dual-use items?

1. About- Dual-use items are products and technology **that can be used both for civilian and military applications.**
2. Regulatory oversight- Governments strictly regulate the export, transfer, and use of dual-use items to **prevent their misuse in activities such as weapons development, terrorism, or other illicit purposes.**
3. Examples- Global positioning satellites, **missiles, nuclear technology**, chemical and biological tools, **night vision technology, thermal imaging**, some models of drones, aluminum pipes with precise specifications or **certain kinds of ball bearings.**

What are the global control mechanisms for dual use items?

1. Missile Technology Control Regime (MTCR)- It is a multilateral export control regime aimed at reducing the risks of weapons of mass destruction (WMD) proliferation.
 - a. **Established in 1987** by G7 countries.
 - b. It **Consists of 35 member countries.**
 - c. India became its 35th member in 2016.
2. Wassenaar Agreement- It is a multilateral export control regime that aims to regulate the export of conventional arms and dual-use goods and technologies.
 - a. **Established on 12 July 1996**, in Wassenaar, near The Hague, Netherlands
 - b. It consists of **42 participating countries.**
 - c. **India is not a member** of it.
3. Nuclear Suppliers Group- NSG is a group of nuclear supplier countries that frames and implements agreed rules for exporting nuclear equipment with a view to controlling the spread of nuclear weapons
 - a. It was **set up in 1974** as a response to India's nuclear tests.

- b. It has **48 member states** and the European Commission acts as an Observer.
- c. **India is not a member** of it.

Energy Charter Treaty (ECT)

Why in the News?

The UK, along with France, Germany, Spain, and the Netherlands, is pulling out of the Energy Charter Treaty. It **permits fossil fuel companies to take legal action against governments** regarding climate policies.

This decision comes after unsuccessful negotiations aimed at updating the treaty have concluded.

What is the Energy Charter Treaty (ECT)?



Figure 3. Source-Energy charter

1. About- It is an **international agreement** that establishes a multilateral framework for collaboration across borders in the energy sector.
2. Signed- The agreement was **signed in December 1994** and became legally effective in April 1998.
3. Objective- The aim of the ECT is to encourage **long-term cooperation in the energy** sector, emphasizing complementary interests and

mutual advantages.

4. Areas Covered- It covers various facets of **commercial energy operations**, including trade, transit, investments, and energy efficiency.
5. Signatories- Presently, there are **56 signatories** and contracting parties to the Energy Charter Treaty (ECT), which include both the **European Union** and **Euratom (European Atomic Energy Community)**.
6. Established Energy Charter Conference- It founded the Energy Charter Conference, an **inter-governmental organization** that convenes regularly to address matters concerning energy collaboration.

Africa Club

Why in the news?

Recently, the Africa Club was launched at the 37th African Union Summit held in Addis Ababa, Ethiopia.

About Africa Club

- 1) About: It is an **alliance of African Multilateral Financial Institutions** (which are African-owned and controlled). It was launched at the **37th African Union Summit**.
- 2) Aim: It aims to **amplify Africa's influence in the global financial system** by aligning its functions with the SDGs and the African Union's Agenda 2063.
- 3) Objective: It seeks to **introduce innovative financial instruments**, provide a venue for debt management discussions and foster collaborative effort to address the specific needs of African countries.
- 4) Members: African Export-Import Bank, Trade and Development Bank, Africa Finance Corporation, African Reinsurance Corporation, African Trade and Investment Development Insurance, Shelter Afrique Development Bank and ZEP – RE (PTA Reinsurance Co) are members of African club.

About African Union:

- 1) About: The AU is an **intergovernmental organisation** of the 55 member states located on the continent of Africa.
- 2) Origin: It was founded on July 9, **2002**. The grouping is the successor of the Organisation of African Unity (OAU), which was formed in 1963 (more on this later).
- 3) Aim: It seeks to build **an Integrated, Prosperous and Peaceful Africa, driven by its own citizens**.
- 4) Key objectives:
 - a) It aims at **promoting peace, stability, and security** across the region.
 - b) It also aims to **protect and promote human rights**
- 4) Secretariat: Addis Ababa

Pancheshwar Multipurpose Project (PMP)

Why in the News?

Despite the recent agreement between India and Nepal, discussions over the Pancheshwar Multipurpose Project (PMP) are still deadlocked.

What is Pancheshwar Multipurpose Project (PMP)?

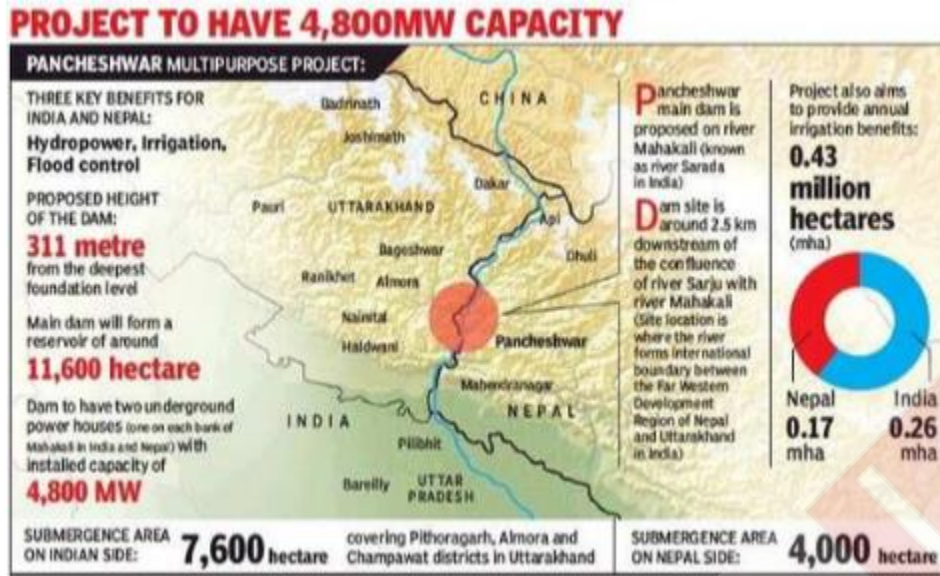


Figure 4. Source- The Times of India

Background- In February 1996, India and Nepal entered into the **Mahakali Treaty**. The focal point of this treaty is the **implementation of the Pancheshwar Multipurpose Project**.

1. About- It is a bi-national **hydropower project between India and Nepal**, planned for development

along the Mahakali River, which forms the border between the two countries.

2. Aim- Its main goals are to **produce energy and improve irrigation** in both countries.

3. Features:

a. It includes building a **315-meter tall dam** across the Mahakali River, **called Sharda in India**.

b. The project aims to **generate about 6,480 MW of energy**, divided equally between both sides.

c. It will also **provide water for irrigating 130,000 hectares of land in Nepal and 240,000 hectares in Indian territory**.

4. Concern- Environmentalists have raised concerns about its **potential impact on regional ecology and local communities**.

What is Mahakali Treaty?

1. About:

a. It is an agreement between the Governments of India and Nepal regarding the integrated development of the Mahakali River.

b. The treaty **recognizes the Mahakali River as a boundary river between the two countries**.

2. Signed- The treaty was signed in **1996**.

About Mahakali river (Sharda River)

1. Origin- The Sharda River, also called Kali River and Mahakali River, originates from **Kalapani in the Himalayas**, situated in the **Pithoragarh district of Uttarakhand**.

2. Flow- The river **flows along Nepal's western border with India** and joins the **Ghaghara (Karnali/Manchu) River**, which is a tributary of the Ganga.

3. Tributaries:

- a. Left- Chameliya, Ramgun in Nepal
- b. Right- **Kuthi, Dhauli, Gori, Sarju, Ladhiya rivers** in Uttarakhand (India)

Subject: Indian Economy

Paytm Payments Bank

Why in the news?

The Reserve Bank of India recently placed additional restrictions on Paytm Payments Bank Ltd (PPBL) due to non-compliances of its directives.

About Payment Banks

Definition- It is like any other bank. However, it operates on a smaller scale without involving any credit risk. It was set up based on the recommendations of the **Nachiket Mor Committee**.

Objective: To advance **financial inclusion** by offering banking and financial services to the **unbanked** and underbanked areas.

Status-It is registered as a **public limited company** under the **Companies Act 2013** and licensed under **Section 22 of the Banking Regulation Act 1949**.

Salient features of Payment Bank

- 1) They are differentiated, and not **universal banks**.
- 2) These operate on a **smaller scale**.
- 3) The minimum paid-up equity capital for payments banks shall be **Rs. 100 crores**.
- 4) The minimum initial contribution of the promoter to the Payment Bank to the paid-up equity capital shall be at least 40% for the first five years from the commencement of its business.

Banking operation that can be performed:

- 1) It can take deposits up to **Rs. 2,00,000**. It can accept demand deposits in the form of **savings and current accounts**.
- 2) The money received as deposits can be invested in secure **government securities** only in the form of **Statutory Liquidity Ratio (SLR)**.
- 3) It can offer **remittance services, mobile payments/transfers/purchases, and other banking services like ATM/debit cards, net banking, and third-party fund transfers**.
- 4) It can become a **banking correspondent (BC)** of another bank for credit and other services.

Restricted activities

- 1) It cannot issue **loans** and **credit cards**.
- 2) It cannot accept **time deposits** or **NRI deposits**.
- 3) It cannot set up **subsidiaries** to undertake non-banking financial activities.

SARTHI Portal

Why in the news?

The Union agriculture minister has recently launched Sarathi portal for insurance products to help farmers.

About SARTHI Portal (Sandbox for Agricultural and Rural Security, Technology and Insurance)

Introduction- SARTHI is the comprehensive digital insurance platform launched in collaboration with **United Nations Development Programme (UNDP)** India.

Objective-To provide a **comprehensive suite of insurance products** including **PMFBY**(Pradhan Mantri Fasal Bima Yojana) to farmers.

Coverage-It extends coverage to **health, life, home, shop, agriculture implements**, motor, and parametric products.

Features of the portal-1) It will be a **single-window platform** for viewing, purchasing and availing insurance products.

2) It will have **user-friendly interfaces** for stakeholders.

3) It will have **digital payment** and **effortless claim initiation** options.

Access-It can be accessed via the AIDE app available on Android App Store.

Other initiatives taken by the government

1) Learning Management System (LMS)

Developed by-It is developed in collaboration with the **National E-Governance Division (NeGD)**.

Objective- To provide **all stakeholders** with the essential skills and knowledge needed for efficient **crop insurance** and **agricultural credit**.

Strategy-The LMS will facilitate **training** and **knowledge sharing** through interactive modules and personalized training programs.

2) Krishi Rakshak Portal and Helpline (KRPH) 14447

The platform provides support to farmers to ensure real-time **resolution of grievances** related to **compensation delays** and **insurance queries**.

DigiReady Certification Portal

Why in the news?

The Quality Council of India (QCI) and ONDC have recently announced the launch of the DigiReady Certification (DRC) portal.

About DigiReady Certification

Launched by-The **Quality Council of India (QCI)** and the **Open Network for Digital Commerce (ONDC)**

Objective-To assess and certify digital readiness of **Micro, Small, and Medium Enterprises (MSME) entities.**

Eligible entities-This portal is open for self-assessment to **all Micro, Small and Medium Enterprises (MSMEs) and small retailers.**

Features of portal-1) MSMEs can evaluate their preparedness to seamlessly onboard as sellers on the ONDC platform.

2) This portal will ensure that MSMEs and small retailers can **integrate seamlessly** into existing **digitized** workflows.

3) The certification process evaluates various aspects of **digital readiness**. This includes the presence of necessary documentation for **online operations, proficiency in using software** and technology etc.

Global Pulses Conference: India need to augment pulses production

Why in the News?

The Global Pulses Conference recently **suggested India to augment production of pulses** to meet the nutritional requirements.

The two-day conference is **jointly organised by the National Agricultural Cooperative Marketing Federation of India Ltd. (NAFED) and the Global Pulse Confederation (GPC).**

What is the status of pulse production in India?

1. Current Production- Over the past decade, **pulse production has increased by 60%**, rising from 171 lakh tonnes in 2014 to **270 lakh tonnes in 2024.**

2. India's contribution- India holds the title of the **world's largest producer, consumer, and importer of pulses.** India contributes **25% to global production, consuming 27% of the world's total, and importing 14%.**

3. Area covered- **Pulses cover about 20% of the foodgrain area and contribute 7-10% to the total foodgrain production in the country.**

4. Sowing Season- While pulses are cultivated in both Kharif and Rabi seasons, Rabi pulses contribute over 60% to the total production.

5. Pulse Varieties contribution- Gram is the leading pulse, comprising about 40% of total production, followed by Tur/Arhar at 15-20%, and Urad/Black Matpe and Moong at approximately 8-10% each.

6. Current status of pulse varieties- India now produces enough chickpeas (chana) and various other pulse crops to meet its own needs, with only a minor shortfall in pigeon peas (tur) and black gram.

Note- The government aims to attain self-sufficiency in pulses by the end of 2027.

Govt proposes to hike ministries reporting limits for financial expenditure

Why in the news?

Parliament's Public Accounts Committee has recently approved the Finance Ministry's proposal to raise financial limits on spending for 'New Service' and 'New Instruments of Service'.

What are 'New Service' and 'New Instruments of Service'?

New Service (NS)- It refers to expenditure arising out of a new policy decision that was not brought to the notice of Parliament earlier. This may include a new activity or a new investment.

New Instrument of Service (NIS)-It refers to relatively large expenditure arising out of important expansion of an existing policy.

What is the new limit approved by Public Account Committee?

The new policy-related expenditure by ministries/departments can be more than Rs 50 crore but cannot exceed Rs 100 crore. For exceeding Rs 100 crore limit, prior approval of Parliament is mandatory.

The panel has fixed the reporting limit for 'New Instrument of Service', to up to 20% of the original appropriation or up to Rs 100 crore, whichever is higher. For exceeding this limit, prior approval of Parliament is mandatory.

Rubber Board of India

Why in the news?

The government has recently increased the allocation for Sustainable and Inclusive Development of the Natural Rubber Sector by 23% to Rs 708.7 crore for the next two financial years. The scheme runs parallel with the tenure of the award of 15th finance commission and is run by the Rubber Board of India.

About Rubber Board of India

Aspect	Details
Description	It is a statutory organization constituted under the Rubber Act, 1947 .
Concerned ministry	It functions under the administrative control of the Ministry of Commerce and Industry
Headquarters	Kottayam , Kerala.
Structure	1) The Board is headed by a Chairman appointed by the Central Government . 2) It has 28 members representing various interests of the natural rubber industry.
Functions	1) It is responsible for the development of the rubber industry in the country by assisting and encouraging research, development , extension and training activities related to rubber. 2) It maintains statistical data of rubber. The Board also takes steps to promote marketing of rubber and undertake labor welfare activities. 3) It issues licences to rubber producers, manufacturers, and exporters/traders. This licence is known as the Rubber Board licence/registration . It is mandatory for rubber manufacturing and export .

What are the favourable conditions for growth of rubber?

- 1) Temperature- It requires **high temperature** throughout the year - ranging between 20°-35°C or average monthly mean of 27°C.
- 2) Rainfall- It requires **heavy rainfall**. The annual average rainfall of not less than 200 cm is optimum. Rubber tree thrives well when the distribution of rainfall is **uniformly high all over the year**.
- 3) Soil- Deep, friable, well-drained soils are ideal for rubber cultivation They promote **root development**, and acidic soils are also suitable.

Some important facts about rubber production-

- 1) **Thailand** is the **leading** Rubber producing country in the world. Thailand is followed **Indonesia** and **China** at the second and third place respectively.
- 2) **India** stands at **fourth position** in Rubber production.
- 3) Traditional rubber-growing states comprising **Kerala** and **Tamil Nadu** account for 81% of production.

Pigeon Pea

Why in the News?

According to the **International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)**, a **new fast-breeding method** will make it easier for scientists to improve pigeonpea quality more quickly.

What is Pigeon Pea?

Factly Compilation for the Month of February 2024



Source- DownToEarth

Aspect	Details
About	<ol style="list-style-type: none"> 1. It serves as a significant legume crop and a protein-rich food, mainly consumed as dal in India. 2. In India, it is alternatively known as arhar and tur.
Cultivation	Primarily grown in tropical regions , it is predominantly cultivated in the semi-arid areas of India .
Climate conditions	<ol style="list-style-type: none"> 1. Rain- It needs an annual rainfall of 600-650mm, along with moisture during the initial eight weeks and dry conditions during its flowering and pod development phase. 2. Temperature- It can be grown between 26°C to 30°C during the rainy season and 17°C to 22°C in the post-rainy season (November to March). 3. Soil- It can be grown in any soil type, but sandy loam or loam soil is best for its cultivation. <p>Note- It is highly sensitive to low radiation during pod development, so flowering in the monsoon or cloudy weather results in weak pod formation.</p>
Intercropping	It is often grown alongside various crops. In India, around 80-90% of pigeonpea is intercropped .
Concern	<ol style="list-style-type: none"> 1. Long growth cycle- Breeding efforts for Pigeonpea have been limited due to its long growth cycle and sensitivity to day length. Only around 250 varieties have been released worldwide in the past sixty years. 2. Disease- Key diseases of pigeon pea include wilt, sterility mosaic disease, phytophthora blight, alternaria blight, and powdery mildew, among others.
Health Benefits	It possesses a low glycemic index and boasts abundant levels of thiamine, riboflavin, niacin, vitamin B-6, folate, vitamin A, calcium, zinc, iron, magnesium, and phosphorus .
Major Pigeon Pea Producing States	Maharashtra, Madhya Pradesh, Karnataka, Uttar Pradesh, Gujarat and Jharkhand

Subject: Science & Technology

Cygnus X-1

Why in the news?

AstroSat, India's first, dedicated multi-wavelength astronomy mission, has achieved a remarkable feat by measuring X-ray polarisation from the Cygnus X-1 black hole.

About Cygnus X-1



Figure 5. Source-The Indian Express

1) It is one of the **first confirmed black hole** systems in our galaxy that was discovered over four decades ago.

2) Its distance from the earth is about **400 times** of the distance between **Earth and Sun**.

3) It is **20 times heavier than the Sun**, and has a companion – a heavy supergiant star (40 times more massive than the Sun) in a binary system.

4) Due to the **gravitational pull of the black hole**, material from the supergiant falls and spirals in towards the black hole. This process leads to the formation of a **thin accretion disk**, which is responsible for soft X-rays.

GRAPES-3 experiment

Why in the news?

The Tata Institute of Fundamental Research's GRAPES-3 experiment, situated in Ooty, India, has revealed a new facet in the realm of cosmic ray physics.

About GRAPES-3 experiment (Gamma Ray Astronomy PeV EnergieS phase-3)

Aspect	Details
About	GRAPES-3 (Gamma Ray Astronomy PeV EnergieS phase-3) is designed to study cosmic rays . It employs an array of air shower detectors and a large area muon detector .
Established by	Collaboration of the Tata Institute of Fundamental Research, Mumbai, India and the Osaka City University, Osaka, Japan .
Location	Ooty (Tamilnadu)
Objective	To study the origin, acceleration and propagation of cosmic rays in the galaxy and beyond.

Ergosphere

Why in the news?

It is possible to extract matter and energy from Ergosphere as per some scientist.

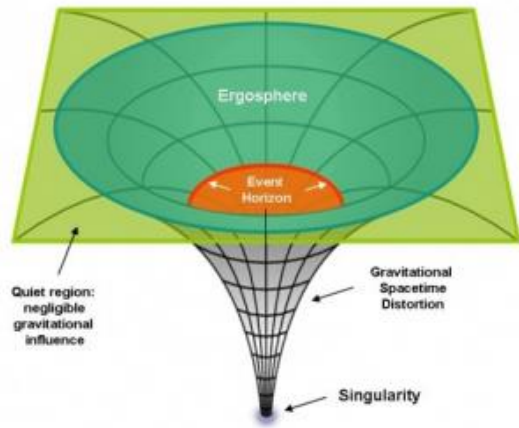


Figure 6. Source-ResearchGate

About Ergosphere

Origin-Ergosphere comes from the Greek word 'ergon' that means 'work'. It has got its name because it is possible to **get energy** and even mass from this place.

Definition-It is the region in between the **event horizon** and the **stationary limit**.

NOTE- Event Horizon: It is a sphere around the singularity of a Black Hole. When anything enters this sphere, it can't escape unless it travels faster than light (which is impossible).

Stationary limit-It is a surface around the outside of a rotating black hole.

Shape: An Ergosphere is shaped like an **oblate spheroid**,

or a pumpkin.

Features Of Ergosphere

- 1) In this region, **space-time itself** is dragged along with the **rotation** of the black hole.
- 2) Objects within the ergosphere are forced to rotate along with the **black hole's spin** due to the distortion of spacetime caused by its **immense gravitational pull**.

NOTE-Black hole-It is a region of spacetime where gravity is so strong that **even light** can not escape.

Gravitational Singularity-The centre of a black hole has a gravitational singularity, a one-dimensional point. This point contains a **huge mass in an infinitely small space**, where density and gravity become **infinite**. Here, laws of **physics** cease to **operate**.

The Healthy Indian Project

Why in the news?

The Healthy Indian Project (THIP), a health information platform in India, has recently been included as a member of the World Health Organization's Vaccine Safety Net (VSN).

What is "The Healthy Indian Project"?



Figure 7. Source- WHO

About- It is a **health information** and **fact-checking** platform in India.

Objective- To enhance health literacy among Indians by delivering **credible** and **evidence-based** content in **multiple Indian languages**.

Website language- It is available in **5 Indian languages** namely English,

Hindi, Bengali, Punjabi and Gujarati.

VSN membership- Since 2023.

Website's sponsorship policy- This is privately funded by its directors. The company is **not** affiliated to any **political institution**.

About Vaccine Safety Net

- 1) Origin- Various **non-governmental organizations**, **United Nations Children's Fund (UNICEF)** and WHO came together in 2003 to start the Vaccine Safety Net Project (VSN).
- 2) Established by- **World Health Organization**. This is a global network of **websites**.
- 3) Objective- To provide **scientifically based information** on vaccine safety in various languages.
- 4) Membership- It has 110 websites from **45 countries**. They provide vaccine safety information in **43 languages**.

India's first hypervelocity test facility

Why in the news?

The Indian Institute of Technology Kanpur (IIT-K) has successfully established and tested India's first Hypervelocity Expansion Tunnel Test Facility recently.

About India's first hypervelocity test facility

Location- The S2, nicknamed '**Jigarthanda**', is a **24-meter-long facility** located at IIT Kanpur's Hypersonic Experimental Aerodynamics Laboratory (HEAL) within the Department of Aerospace Engineering.

Designed by- It was **indigenously designed and developed** over three years by the Department of Science and Technology (DST) and IIT Kanpur.

Funding- The development of the facility was supported by the Fund for Improvement in S&T Infrastructure (FIST) of the **Department of Science & Technology (DST)** with a sum of Rs 4.5 Crores in 2018.

Speed range-It is capable of generating flight speeds between 3-10 km/s. It can simulate the hypersonic conditions encountered during the atmospheric entry of vehicles, asteroid entry, scramjet flights, and ballistic missiles.

Mxenes

Why in the news?

Researchers have recently reported on the potential of using MXene coatings that can lighten satellite payloads.

About Mxene

Introduction-1) MXenes are an emerging class of two-dimensional (2D) ceramic nanomaterials that were first discovered in 2011.

2) MXenes uniquely combine metallic conductivity, hydrophilic surfaces, and excellent mechanical properties.

Composition-1) They are made from a bulk crystal called MAX.

2) Among its various types , titanium carbide (Ti_3C_2Tx) is the most widely used.

Application of Mxene

1) Energy Storage-They are used in storing energy.For example-Batteries (Li-ion, Li-S, Al-ion), Supercapacitors and Hydrogen storage.

2) Electromagnetic Shielding-Radar absorption and 5G communication.

3) Water Purification-Desalination membranes,Selective separation and Selective separation.

4) Composites-Polymer reinforcement and Ceramic matrix composites.

Satyendra Nath Bose

Why in the news?

Distinguished scientists came together to celebrate 100 years of Satyendra Nath Bose's publications contributing to quantum mechanics.

About Satyendra Nath Bose



Source-wikipedia

Introduction-1) He was an **Indian physicist** who established **modern theoretical physics** in India. He is best known for providing the foundation of **Bose-Einstein statistics** and developing the theory of **Bose-Einstein condensates**.

2) He was born in Calcutta on January 1, 1894. He was an outstanding student who got inspired from brilliant teachers like **Jagadish Chandra Bose** and **Prafulla Chandra Roy**.

3) He started his career in 1916 as a **lecturer in physics at Calcutta University** and then joined Dacca University.

4) At the University of Dhaka, Bose carried out research and studied the **theory of relativity**.

Contribution of Satyendra Nath Bose

1) By treating radiation as a gas of photons (Photon gas) and using new statistical techniques for counting photon states, Bose provided a new **derivation of Planck's law**.

2) The pioneering ideas of Bose, developed further by **Einstein**, were confirmed by the observation of a new state of matter in a diluted gas of ultra-cold alkali atoms, **the Bose-Einstein condensate**. This exotic material exists only when atoms of certain elements are cooled to temperatures near **absolute zero**.

3) At that point, clusters of atoms begin functioning as a single quantum object **with both wave and particle properties**.

4) According to scientists, **BECs** hold crucial information about curious phenomena like **dark energy**, the unidentified energy thought to be responsible for the universe's accelerating expansion.

High Altitude Pseudo Satellite Vehicle (HAPS)

Why in the News?

The National Aerospace Laboratories (NAL) in Bengaluru has successfully completed the first test of a solar-powered high-altitude pseudo satellite vehicle, known as HAPS.

What is High-altitude pseudo satellite vehicle (HAPS)?



Source- The Indian Express

Aspect	Details
About	<ol style="list-style-type: none">1. It is an unmanned aerial vehicle (UAV).2. It is designed for extended periods of operation at high altitudes, typically in the stratosphere.
Features	<ol style="list-style-type: none">1. HAPS can reach altitudes of 18-20 km, nearly double that of commercial airplanes.2. It is solar-powered and can remain in the air for months, even years, offering advantages similar to those of a satellite.3. HAPS operating cost is significantly lower than that of a satellite.
Significance for India	<ol style="list-style-type: none">1. It is still a developing technology; India's recent successful test flight places it among a select group of countries like China, South Korea, and the UK which are developing this technology.2. It can significantly increase India's surveillance and monitoring capabilities in the border areas.3. If calamities damage normal networks, it can deploy mobile communication networks in remote areas.

Frozen smoke (Aerogels)

Why in the News?

Researchers have recently created a sensor using "frozen smoke" that **uses artificial intelligence to detect formaldehyde in real-time**, even at concentrations as low as eight parts per billion. It can exceed the sensitivity of many indoor air quality sensors.

What is Frozen smoke?



Source- new atlas

1. It is **technically known as aerogel** and is an exceptional material. It's **praised as a miracle material**.
2. It was **first developed** in the 1930s.
3. Properties:
 - a. Aerogel has **low density, high thermal resistance, and a very porous structure**.
 - b. Aerogel has the **texture of a fine, dry sponge** but feels significantly lighter. In fact, **it holds the title as the world's lightest solid**.
 - c. When gently pressed, **aerogel regains its original shape**, but pressing harder creates a dimple. However, excessive pressure can cause aerogel to shatter into tiny pieces like glass.
 - d. They are mostly made of air and can eliminate contaminants.

FAST Telescope

Why in the News?

Recently, astronomers from Nanjing University and other institutions discovered a radio pulsar in the supernova remnant CTB 87 using the FAST telescope.

What is Five-hundred-meter Aperture Spherical radio Telescope (FAST)?



Figure 8. Source-WIRED

1. Location- It is **located** in a karst depression in Guizhou, **China**.
2. Size- It is the **world's biggest single-dish radio telescope**, with a receiving **area as large as 30 football fields**.
3. Objective:
 - a. **Detect neutral hydrogen** at the universe's edge to reconstruct images of the early universe.
 - b. **Detect pulsars**, set up a pulsar timing array, and **engage in pulsar navigation**.
 - c. Detecting **gravitational waves in the future**.
 - d. Leading the **International Very-Long-Baseline Interferometry Network** to study celestial bodies' hyperfine structures.
 - e. Searching for **signals of interstellar communication**.

What are Pulsars?

1. Pulsars are **highly magnetized rotating neutron stars** that emit beams of electromagnetic radiation out of their magnetic poles.
2. These beams are observed as **regular pulses of radiation**, hence named as “pulsars.”
3. Pulsars are **formed from the remnants of massive stars** that have undergone supernova explosions.

What are Supernova Remnants?

1. Supernova remnants are the **bright, expanding clouds of gas and dust** formed when massive stars explode.
2. As these stars end their lives, they eject their outer layers into space, while their dense core remains as a neutron star or black hole.
3. Supernova remnants **play a crucial role in the life cycle of galaxies**. They enrich interstellar space with heavy elements and trigger the formation of new stars.

Future Circular Collider (FCC)

Why in the News?

Recently, CERN (the European Organisation for Nuclear Research) scientists are advancing plans for a multibillion-euro project to construct the more powerful Future Circular Collider. The collider plans to **start operating by 2040** with an estimated cost of around 17 billion dollar.

What is Future Circular Collider (FCC)?

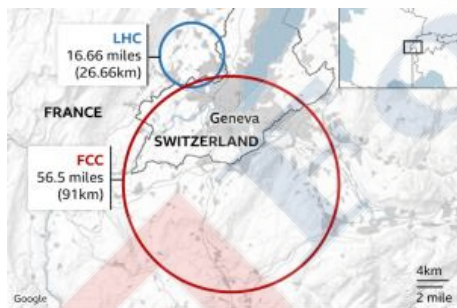


Figure 9. Source-BBC

1. About- The Future Circular Collider (FCC) is a **particle accelerator currently under design**, intended to accommodate the next generation of particle colliders.
2. Purpose- The FCC aims to design a hadron collider with a center-of-mass energy of about **100 TeV (trillion electron volts)**, which is **eight times more powerful than the Large Hadron Collider's 13 TeV**.
3. Location- The FCC is planned to be in a newly constructed **80-100 km tunnel**. The circular tunnel will be at a depth of 100 to 400 meters on the **France-Switzerland border**.
4. FCC extends LHC research- The FCC aims to build upon the ongoing research at the Large Hadron Collider (LHC).
5. Significance:
 - a. It will enhance our **understanding of fundamental physics**.
 - b. It will foster **advancements in fields such as cryogenics, superconductivity, vacuum tech, and detector instruments**.

Alaskapox- An orthopox virus

Why in the news?

An elderly man from Alaska recently became the first person to die after contracting Alaskapox which is an orthopox virus.

About Alaskapox



Source-NDTV WORLD

Aspect	Details
Origin	It is an orthopox virus that was first discovered in Alaska, USA, in 2015.
Description	It is a double-stranded DNA virus belonging to the same genus (Orthopoxvirus) as smallpox, monkeypox, and cowpox .
Types	They are zoonotic viruses that can infect various mammals, including humans.
Host	Current evidence indicates that the Alaskapox virus primarily occurs in small mammals . The virus has been most commonly identified in red-backed voles and shrews .
Symptoms	1) Symptoms of Alaskapox have included one or more skin lesions (bumps or pustules) and other symptoms like swollen lymph nodes and joint and/or muscle pain. 2) Nearly all patients had mild illnesses that resolved on their own after a few weeks. 3) Immunocompromised people might be at increased risk for more severe illness
Is it contagious?	While human-to-human transmission of Alaskapox has not yet been observed, some orthopoxviruses can spread by direct contact with lesions (particularly broken skin contact with lesion secretions).

InfexnTM- India's First genomics-based infectious diseases Test

Why in the news?

Kerala's medical landscape is undergoing a great shift with the introduction of 'InfexnTM', a revolutionary next-generation sequencing test. This will be India's first genomics-based infectious disease test.

About InfexnTM- A Revolutionary Next-Generation Sequencing Test

Description-The 'infexnTM' is a **state-of-the-art** targeted next generation **sequencing** test.

Objective- To detect any **bacterial and/or fungal infection** along with detection of relevant **antimicrobial resistance** genes, within **24 hours**.

Developed by- **IIT-Bombay**-based HaystackAnalytics and **NIMS Medicity** at Neyyattinkara.

Features-1) The test is a **kit-cum-software solution** and can be performed within a hospital.
2) It is "Made in India, Made for the World" test.

NISAR Satellite

Why in the News?

The NISAR satellite which aims to monitor natural processes and changes in Earth's ecosystems, is set to be launched in March 2024. The **partnership agreement** for NISAR development was signed between NASA and ISRO in 2014.

What is NISAR satellite?

Aspect	Details
Full form	NASA-ISRO Synthetic Aperture Radar (NISAR)
About	1. NISAR is a satellite jointly developed by NASA and ISRO for Low Earth Orbit (LEO) observation . 2. It is an SUV-size satellite weighing around 2,800 kilograms.
Objective	1. Tracking subtle changes in the Earth's surface. 2. Spotting warning signs of imminent volcanic eruptions . 3. Helping to monitor groundwater supplies . 4. Tracking the rate at which ice sheets are melting .
Launch year	It will possibly launch in early 2024 from Satish Dhawan Space Centre in Andhra Pradesh.
Mission life	Three years
Function	1. It will capture images of Earth's land, ice sheets, and sea ice every 12 days .

	2. It will be able to detect the earth's surface movement as small as 0.4 inches over an area.
Features	1. It is a dual frequency satellite (L-band and S-band). Note- NASA contributed the L-band radar, GPS, solid-state recorder, and payload data subsystem, while ISRO supplied the S-band radar , GSLV launch system and spacecraft. 2. Another crucial part of the satellite is its large 39-foot fixed antenna reflector . It will be used to focus 'the radar signals emitted and received by the upward-facing feed on the instrument structure'.

Bubonic Plague (Black death)

Why in the News?

Recently, a rare case of bubonic plague, **also known as the Black Death**, has been detected in the US. It is likely transmitted by a pet cat.

What is Bubonic plague?



Figure 10. Source- Edmonton Journal

1. About- Bubonic plague is a **severe bacterial infection caused by a bacteria called Yersinia pestis**, which is typically found in small mammals and their fleas.
Note- Y. pestis bacteria **can harm both humans and animals**.
2. Name origin- Bubonic plague is **named after the swollen lymph nodes (buboes)** it causes. It resulted in millions of deaths in Europe during the Middle Ages.

3. Fatality Rate: It has a case-fatality ratio ranging from **30% to 60%**.

4. Symptoms:

- a. Sudden fever and chills.
- b. Pain in the abdomen, arms, and legs.
- c. Headaches
- d. Swollen lumps in the lymph nodes that may leak pus.

5. Transmission:

- a. Y. pestis is mainly spread by **fleas on rodents and other animals**.
- b. It spreads between animals and humans through flea bites, direct contact with infected tissues, and inhaling infected respiratory droplets.

6. Incubation period- 2 to 8 days.

7. Treatment: Bubonic plague can be cured with **antibiotics like Ciprofloxacin, levofloxacin, moxifloxacin, Gentamicin, and Doxycycline**.

What are the other types of plague?

Bubonic is one type of plague. Other types of plague include:

- a. **Septicemic plague**, when the infection spreads throughout the body.
- b. **Pneumonic plague**, when the lungs are infected.

Micellar water

Why in the News?

This article discusses micellar water, a popular product found in markets. It is **used for effectively removing makeup** and **sunscreen** due to its cleansing properties.

What is Micellar water?

1. Micellar water is a **gentle solution with a mild detergent**. It is a **skincare product** made up of tiny oil molecules called **micelles** – groups of molecules that are good at removing oil.
2. The micelles in micellar water are created by special molecules called **surfactants**. These molecules have both hydrophilic (water-loving) and hydrophobic (water-hating) properties.
3. These micelles molecules have **water-friendly outer layer that** easily mixes with water.

How micellar water works?

1. When someone **applies micellar water to a cotton pad**, an interesting thing happens. The **wet cotton attracts the water-loving part (hydrophilic) of the micelles**, while the **oily part (hydrophobic) sticks out**.
2. This **oily part is attracted to makeup, sunscreen, oils, and dirt on your face**.
3. As one wipe the cotton pad across your skin, these **substances attach to the micelles and are removed**. Some are even trapped inside the micelles.
4. This result in a cleaner skin in the end.

Rhodamine-B

Why in the news?

The Tamil Nadu government has recently banned the sale and production of **cotton candy** after it was found that a **toxic chemical** Rhodamine-B was being used to make it.

About Rhodamine-B

Description– It is a chemical commonly used for dyeing in various industries, including textiles, paper, leather, and paints. It serves as a colouring agent, producing red and pink hues.

Physical Properties- When in powdered form, it appears green. However, when water is added, it changes into pink colour.

Why it is harmful?

1) Neurological Damage: Regular consumption of food containing Rhodamine B can damage the cerebellum tissue in the **brain and the brainstem**. This damage can result in functional abnormalities and **hinder motor** functioning.

2) Liver Dysfunction and Cancer Risk: Rhodamine B ingestion can cause **liver dysfunction** and may increase the risk of **cancer**. Larger quantities consumed over a brief period may lead to **acute poisoning**.

Read more about-[Transgenic crops in India](#)

NOTE- As per the **Food Safety Standards Act, 2006**, preparation, packaging, importing, selling and serving food items with Rhodamine-B in wedding ceremonies and other public events is a **punishable offence**.

Proton Improvement Plan Project- (PIP-II)

What is Proton Improvement Plan Project- (PIP-II)?

About- It is the **1st particle accelerator** on U.S. soil.

Location- Fermilab (USA)

Objective- To generate the world's most **intense beam of neutrinos**.

International Collaborators - It is built with significant contributions from international partners. Indian institutions, including the **Bhabha Atomic Research Centre**, the Inter-University Accelerator Centre, and others, will provide **technical components** for PIP-II.

Function- It will **power** the world's **most high-energy neutrino** beam to the under construction **Deep Underground Neutrino Experiment (DUNE)** at Long-Baseline Neutrino Facility (LBNF).

Significance- It provides **Indian scientists** and engineers the training, **technical insight** and **know-how** for the development of their **domestic particle accelerator** program and future projects.

Guinea worm disease

Why in the news?

WHO's weekly epidemiological report has highlighted that only six cases were identified of Guinea worm disease in 2023.

Guinea worm disease

Factly Compilation for the Month of February 2024



Source-Adobe Stock

Aspect	Details
Description	It is an infectious ' Neglected tropical disease ' (NTD).
Agent	Parasite " Dracunculus Medinensis " which is a fiery serpent.
Is it contagious?	It is basically a human disease. However, it can also spread to animals and humans by eating certain aquatic animals that might carry Guinea worm larvae, like fish or frogs.
Transmission	Drinking water containing Guinea worm larvae
Affected regions	It affects poor communities in remote parts of Africa that do not have safe water to drink.
Symptoms	The disease usually has no initial symptoms. However, after 1 year of disease, there may be a painful burning feeling as a blister forms, usually on the legs. The blister bursts as the worm then comes out of the skin over a few weeks.
Prevention	It can be prevented by filtering drinking water through a piece of fine-mesh cloth, chlorination, or boiling.
Treatment	1) There is no drug & vaccine to prevent Guinea worm infection. 2) Anti-inflammatory medicine can help reduce pain and swelling. 3) Antibiotic ointment can help prevent infections.
Current status of disease	1) According to the World Health Organization's (WHO) weekly epidemiological report, cases dwindled to 14 cases in 2021, 13 in 2022, and just six in 2023 from 3.5 million cases in the 1980s. 2) India eliminated GWD in the 1990s, 3) India received GWD-free certification from the WHO in 2000.

Garbhini-GA2

Why in the News?

Researchers have developed an India-specific artificial intelligence model- Garbhini-GA2. It accurately **determine the gestational age of a fetus during the second and third trimesters of pregnancy (months 4-9 of pregnancy).**

About Garbhini-GA2 AI Model of India



Figure 11. Source-The Hindu

1. About- It is the first computer model for estimating late-trimester gestational age to be **developed and validated using data from the Indian population.**
2. Developed by- Indian Institute of Technology-Madras and the Translational Health Science and Technology Institute, Faridabad.
3. Component of the GARBH-Ini initiative:
 - a. It is **part of a research program called GARBH-Ini** which focuses on advanced research about birth outcomes in India.
 - b. The GARBH-Ini program is a flagship programme of the Department of Biotechnology (DBT), Govt of India.
4. Funding of Garbhini-GA2:
 - a. Department of Biotechnology (DBT), Government of India
 - b. Grand Challenges India program under the Biotechnology Industry Research Assistance Council (BIRAC).
 - c. Robert Bosch Centre for Data Science and Artificial Intelligence (RBC-DSAI)
 - d. Centre for Integrative Biology and Systems Medicine (IBSE) at IIT Madras

What are the issues with current models?

1. Currently, the gestational age (GA) of a fetus is **assessed using a formula designed for Western populations.**
2. Existing Models like **Hadlock** and **INTERGROWTH** estimate pregnancy age, but they are **based on Western data.**
3. **Indian and Western babies grow differently during pregnancy.** So these models give inaccurate results for Indian women in the later months. This can affect due date prediction, care quality, and risk assessment for premature birth in India.

What is the Significance of Garbhini-GA2 model?

1. The new Garbhini-GA2 formula for the second and third trimesters **accurately determines the fetus's age for Indian population, reducing errors by nearly three times.**
2. Precise gestational age is crucial for providing proper care to pregnant women and accurately determining delivery dates.

Subject: Environment

Newly Added Ramsar sites

Why in the news?

India has increased its tally of Ramsar sites (Wetlands of International Importance) to 80 from existing 75 by designating five more wetlands as Ramsar sites.

About Ramsar site

Aspect	Details
About	<ol style="list-style-type: none">1) Ramsar Sites, also known as Wetlands of International Importance, are designated areas under the Ramsar Convention on Wetlands.2) The Ramsar Convention is an international treaty established in 1971 in Ramsar, Iran.3) There are over 2,400 Ramsar Sites covering 2.5 million sq km on the territories of 171 Ramsar Contracting Parties across the world.4) The world's first site was the Cobourg Peninsula in Australia, designated in 1974.5) The countries with the most Ramsar Sites are the United Kingdom with 175 and Mexico with 142.
Objective	to promote the conservation and sustainable use of wetlands, recognizing their ecological importance.
Latest addition to Ramsar sites in India	<ol style="list-style-type: none">1) Karaivetti Bird Sanctuary, Tamil Nadu2) Magadi Kere Conservation Reserve, Karnataka3) Longwood Shola Reserve Forest, Tamil Nadu4) Ankasamudra Bird Conservation Reserve, Karnataka5) Aghanashini Estuary, Karnataka

<p>Features of recently added Ramsar site</p>	<p>1) Karaivetti Bird Sanctuary-It is centred around a large freshwater lake. This lake is the focal point of the sanctuary and serves as a crucial habitat for a variety of bird species, both resident and migratory. It supports 1% population of Black-headed iblis and oriental Darter.</p> <p>2) Magadi Kere Conservation Reserve-The bar-headed goose is one of the birds which migrate to Magadi wetlands.</p> <p>3) Longwood Shola Reserve Forest-it derives its name from the Tamil word, "Solai", which means a 'tropical rain forest'. It maintains the hydrological regime of the region, by capturing rainwater through marshes and then releasing it via streams. It is home to the threatened Nilgiri marten and other rare fauna and flora.</p> <p>4) Ankasamudra Bird Conservation Reserve-It is the only place in Karnatka where Great Indian Bustard can be seen.</p> <p>5) Aghanashini Estuary- It is formed at the confluence of Aghanashini River with the Arabian sea. The brackish water of the Estuary provides diverse ecosystem services including flood and erosion risk mitigation, biodiversity conservation and livelihood support.</p>
<p>States having largest number of Ramsar sites</p>	<p>1) Tamilnadu-16 2) Uttar Pradesh-10 3) Odisha-6 4) Punjab-6</p>

Dusted Apollo Butterfly a Brief

Why in The News?

Dusted Apollo Butterfly a Brief, A rare high-altitude butterfly called the Dusted Apollo (*Parnassius stenosemus*) was seen and photographed for the first time in Himachal Pradesh. It was sighted and photographed by two forest guards during a trek to **Manimahesh Lake** in Chamba.

What is Dusted Apollo Butterfly (*Parnassius stenosemus*)?



Source- The Hindu

Aspect	Details
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About	<ol style="list-style-type: none"> 1. It is a butterfly species found in high-altitude regions, especially in mountainous regions of Ladakh. 2. It belongs to the family Papilionidae. 3. It was discovered in the year 1890.
Range of distribution	It is found from Ladakh to West Nepal, flying at altitudes between 3,500 to 4,800 meters in the inner Himalayas.
Characteristics	<ol style="list-style-type: none"> 1. It is known for its distinctive wing patterns and coloration. 2. It closely resembles the Ladakh Banded Apollo (<i>Parnassius stoliczkanus</i>), but its distinguishing feature lies in the discal band on the upper forewing. 3. In the Dusted Apollo, the band is complete and extends from the costa to vein one, while in the Ladakh Banded Apollo, it is incomplete and extends only up to vein four. 4. The dark marginal band on the hind wings of the Dusted Apollo is narrower compared to the broader band found in the Ladakh Banded Apollo

Note- Regal Apollo (*Parnassius charltonius*) was also photographed at Manimahesh lake.
 a. It is protected under **Schedule II** of the Wildlife Protection Act, 1972.

About Ladakh Banded Apollo (*Parnassius stoliczkanus*)



Figure 12. Source- Wikipedia

- 1) It is a rare butterfly found in **high-altitude regions** of **Central Asia**.
- 2) It is a member of the genus *Parnassius* of the swallowtail family, *Papilionidae*.

What are The Apollo Species of Butterflies?

- 1) Apollos are **highly valued butterflies in commercial trade** and command high prices within the poaching industry.
- 2) Himachal Pradesh has **recorded 11 Apollo species**, with **five** of them designated as **Scheduled species**.
- 3) **Most of the Apollo butterflies** are **endangered** and urgently require conservation and protection measures.

Lantana camara

Why in the News?

Recently, at an exhibition in Bengaluru, sculptures crafted from lantana camara drew significant attention.

What is Lantana Camara (Lantana)?



Figure 13. Source- DownToEarth

- 1) It is a **flowering plant species** belonging to the verbena family. It is **native to the American tropics**.
- 2) Due to its capability to adapt to shifting climates, lantana can **withstand high temperatures and moisture levels**.
- 3) However it is among the **world's ten worst invasive species** and is of **great concern in India**.
- 4) It was introduced to India as **ornamental shrubs** during the colonial period but it rapidly became invasive, spreading across various ecosystems.

WHY LANTANA CAMARA IS A PROBLEM

Workers uproot lantana and put it upside down at Asola

FINAL SOLUTION CUT ROOTSTOCK METHOD

- > Cut portion between stem and root using shovel
- > Lift and put the plant upside down
- > This creates a hormonal imbalance, so no new root is produced and lantana dries up
- > Clean the area of any germinating lantana
- > Plant native shrubs or creepers

WHY IT'S DANGEROUS

Alters the forest eco-system	Results in failure of regeneration of forests	Has invaded several million hectares of forests in India	Rate of growth is 1.5 inches per day	Produces volatile chemical that bars insects from coming near it, except its native insect
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Native to Central and South America | Spread by birds

Figure 14. Source- TimesofIndia

- 5) The shrub can **easily spread across the forest floor**, climb trees as a creeper, and entangle with other native plants.
- 6) The **Nilgiri Biosphere Reserve** in the Western Ghats is heavily impacted by the invasion of Lantana camara, making it one of the **largest affected areas**.

Black-necked Crane

Why in the news?

As per the survey conducted by the Wildlife Institute of India in 2016-2017 in Ladakh region, the population size of black necked crane is around 66-69 individuals.

About Black-necked Crane

Factly Compilation for the Month of February 2024



Source-eBird

Aspect	Details
About	The black-necked crane is a medium-sized crane in Asia that breeds on the Tibetan Plateau and remote parts of India and Bhutan. Both the sexes are almost of the same size , but male is slightly bigger than female.
Population distribution	The high altitude wetlands of the Tibetan plateau, Sichuan (China), and eastern Ladakh (India) are the main breeding ground of the species. However, the birds spend winter at lower altitudes. It is also found in Arunachal Pradesh's valleys- Sangti valley, Zemithang and Chug valley .
Conservation status	IUCN Red List- Near Threatened (NT) CITES- Appendix I Indian Wildlife (Protection) Act, 1972- Schedule I
Threats	1) Damage to the eggs and chicks, caused by feral dogs . 2) Increasing grazing pressure on the limited pastures near the wetlands. 3) Loss of habitat due to development projects on the wetlands.
Conservation efforts	1) Notified Protected areas- The important habitats of Black-necked Crane have been notified as a Protected Areas . For ex- Changthang Sanctuary, Ladakh . 2) Designated Wetlands- The Tso Kar Wetlands Complex , an important foraging and breeding ground for Black-necked Crane has been designated as a Ramsar Site . 3) Financial assistance- The Central Government provides financial assistance to State/Union Territory Governments under the Centrally Sponsored Scheme of 'Development of Wildlife Habitats'.
Religious significance	The bird is revered by Monpas (a major Buddhist ethnic group of Arunachal Pradesh) as an embodiment of the sixth Dalai Lama .

Aldabra giant tortoise

Why in the News?

The **Aldabra giant tortoise reintroduction project** was started in 2018 to reintroduce Aldabra giant tortoises in Madagascar's natural habitats. The project is heading towards success as it has led to thousands of these megaherbivores (Aldabra giant tortoises) **repopulating** the island for the first time in 600 years.

About Aldabra giant tortoise



Source-DownToEarth

Aspect	Details
About	<ol style="list-style-type: none"> It is the world's second-largest land tortoise species, after the Galapagos giant tortoise. These tortoise have descended from ancestors of Aldabrachelys abrupta, one of two giant tortoises that lived in Madagascar for 15 million years.
Lifespan	It has a lifespan of about 100 years .
Population Distribution	These are endemic to the Aldabra Atoll in the Seychelles , an archipelago in the western Indian Ocean, approximately 930 miles east of Africa and northeast of Madagascar.
Habitat	<ol style="list-style-type: none"> These tortoises live on land and inhabit diverse environments such as scrub forests, mangrove swamps, and coastal dunes and beaches. Grasslands named "platins" harbour the largest populations of tortoises.
Conservation Status	IUCN- Vulnerable CITES- Appendix II
Physical Characteristics	<ol style="list-style-type: none"> They are dark gray to black with a strongly domed, thick shell. Aldabra tortoises show sexual dimorphism, meaning males and females have different appearances. Males are much bigger than females and have longer, thicker tails.
Significance	<ol style="list-style-type: none"> They are vital in keeping the ecological balance in a habitat mosaic (a place where different habitats exist side by side). They consume fruits from different trees. These then spread the seeds through their dung, aiding in megafauna-dependent germination. This facilitates the growth of forests, woodlands, shrublands, and grasslands.

About Aldabra Atoll

1. Aldabra is the **world's second-largest coral atoll**, located **southeast of Africa**.
2. It **belongs to the Aldabra Group of islands in the Indian Ocean**, which are part of the Outer Islands of the Seychelles.
3. It is inscribed on the UNESCO **World Heritage List** in 1982.

Note- An atoll is a ring-shaped coral formation surrounding a lagoon, usually formed from the rim of a submerged extinct volcano. They're **often found in warm, tropical oceans**.

Sepahijala Wildlife Sanctuary

Why in the news?

The Sepahijala Wildlife Sanctuary of Tripura recently welcomed two Royal Bengal tigers, two leopards and four golden pigeons.

About Sepahijala Wildlife Sanctuary

Aspect	Details
Location	It is located around 25 km from Agartala, Tripura.
Established	It came into existence in 1972.
Vegetation	It has moist deciduous forest
Lakes	It has two natural lakes , namely Abasarika and Amrit Sagar .
Flora	The sanctuary has around 456 plant species; many kinds of bamboo and a variety of grasses and medicinal plants also grow in the sanctuary
Fauna	It is the habitat of different species of primates like Rhesus macaque, Pigtailed macaque, Capped langur, Spectacled monkey, Slow loris and several other wild animals like Leopard, Clouded leopard, Jungle fowl, Civets, Barking, Deer, Wild pig, etc.
Important fact	Clouded Leopard National Park , established in 2007 , is a part of this wildlife sanctuary.

Water (Prevention and Control of Pollution) Amendment Bill 2024

Why in the News?

Water (Prevention and Control of Pollution) Amendment Bill 2024, was recently passed by the Parliament. This bill effectively **decriminalizes** almost all penal provisions **except** sections 25 and 26 in the earlier 1974 Water (Prevention and Control of Pollution) Act.

Section 25 pertains to the mandatory requirement of obtaining consent to operate from state pollution boards, while **section 26** deals with the discharge of sewage or trade effluents.

About Water (Prevention and Control of Pollution) Amendment Bill 2024

1. To amend- The Water (Prevention and Control of Pollution) Act 1974.
2. Applicability- Initially, its application will be limited to **Himachal Pradesh, Rajasthan, and the union territories**. Other states have the option to pass resolutions to extend its applicability within their jurisdictions.

Key provisions of the bill:

1. Industrial Establishment Consent Exemptions:- According to **Section 25** of the 1974 Act, **approval from the SPCB was needed** before setting up any outlet expected to release sewage or trade effluent into water bodies, sewers, or land. However, the proposed bill provides certain Industrial Establishment Consent exemptions-
 - a. The proposed Bill **allows the Central government**, in consultation with the CPCB, to **exempt** specific industrial plants from this requirement.
 - b. The **central government may issue guidelines for granting, refusing, or revoking consent granted** by the SPCB.
2. Additional penal provision under section 25 of the Act- The bill **retains the penal provision under Section 25** of the original Act. The **establishment and operation of an industry without obtaining SPCB consent** will still be punishable with imprisonment up to **six years and fine**. It also **introduces an additional penalty** between Rs 10,000 and Rs 15 lakh **for tampering with monitoring devices** used to determine the setting up of any industry or treatment plant.
3. Selection of Chairman of State Pollution Control Board- Under the 1974 Act, the state government nominated the chairman of a State Pollution Control Board (SPCB). However, according to the amendment Bill now, **central government will determine the nomination process and the terms of service** for the chairman of SPCB.
4. Offences related to polluting matter:
 - a. Change of imprisonment to fines in pollution offence- Under the 1974 Act, the offenders of discharge of polluting matter faced imprisonment between one and a half to six years. The 2024 amendment Bill **replaces imprisonment with penalties** ranging from Rs 10,000 to Rs 15 lakh.
 - b. Imprisonment in case of failure to pay fines- **Failure to pay penalties may lead to imprisonment** up to three years or a fine double the penalty amount.
5. Adjudicating officer to determine penalties:
 - a. The 2024 amendment Bill allows the central government to **appoint adjudication officers to**

decide penalties under the Act.

b. Appeals against their orders can be made to the National Green Tribunal, with a deposit of 10% of the penalty.

c. Penalties collected will go to the Environment Protection Fund established under the [Environment \(Protection\) Act, 1986](#).

World Sustainable Development Summit

Why in the news?

Vice-President of India has recently inaugurated the World Sustainable Development Summit in Delhi in February 2024.

About World Sustainable Development Summit

Introduction-It is an annual flagship multistakeholder convening. This was previously called as Delhi Sustainable Development Summit.

Established in – 2001.

Organized by – The Energy and Resources Institute (TERI).

Parties involved – Ministries of Earth Sciences, New and Renewable Energy and Environment, Forests, and Climate Change (MoEFCC).

Objective – To mobilize opinion-makers to address issues concerning sustainable development and climate change.

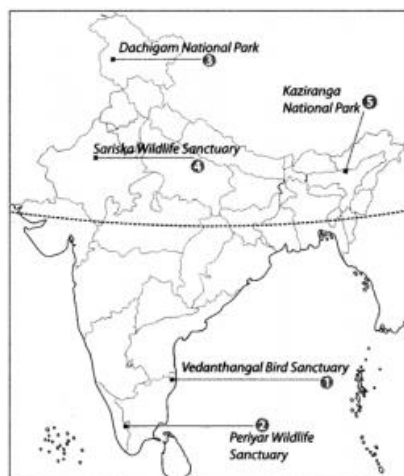
NOTE-It is the only independently convened international summit on sustainable development and environment, based in the Global South.

Dachigam National Park

Why in the News?

At Dachigam National Park in Jammu and Kashmir, a special diet has been provided to Himalayan Black Bears to support them during their natural hibernation period. Because of heavy snowfall and cold weather, the bears had trouble finding their usual food.

About Dachigam National Park



Source- LearnCBSE

Aspect	Details
Location	1. It is located 22 kms from Srinagar in Jammu and Kashmir at altitudes ranging from 5500 feet to 14,000 feet. 2. It covers an area of 141 sq km (square kilometers).
Origin and History	1. Its name, meaning ' ten villages ', possibly commemorates the relocation of ten villages for its creation. 2. Initially, its establishment aimed to guarantee the provision of clean drinking water to Srinagar city.
National Park Status	Designated as a protected area since 1910, it attained the status of a national park in 1981 .
Special Feature	The park is renowned for being the habitat of the critically endangered Hangul , also known as the Kashmir stag .
Vegetation	Himalayan moist temperate forest : sub-alpine forest and alpine forest type
Flora	Wild cherry , apple, pear, peach, plum, apricot, chestnut, willow, walnut, oak , pine , birch, poplar, chinar, and elm trees .
Fauna	1. Besides the Hangul, Dachigam boasts populations of musk deer, leopard, Himalayan Grey Langur , leopard cat, Himalayan Black Bear, yellow-throated marten , and various other species. 2. The area is home to raptors like the Eurasian eagle owl , Lammergeier, Eurasian griffon , and white-rumped vulture .

About Himalayan Black bear (*Ursus thibetanus laniger*)



Source- NDTV

1. It is a subspecies of the **Asian black bear**.
2. It is known for its role as a **primary seed disperser** which helps in maintaining ecosystem balance.
3. Nature:
 - a. It is typically **nocturnal and elusive**.
 - b. In the northwestern Himalayas, it **hibernates during winter**, while in the eastern Himalayas, it **remains active throughout the year**.
4. Conservation status- IUCN: **Vulnerable**

Bor Tiger Reserve

Why in the news?

The Bor Tiger Reserve (BTR) has recently sought Rs 1 crore for various works to start wildlife safaris in the Bangdapur and Hingni forest ranges.

About Bor Tiger Reserve

Aspect	Details
Introduction	It is a wildlife sanctuary which was declared a tiger reserve in July 2014.
Location	It is located in the Wardha District of Maharashtra .
Area	The reserve covers an area of 138.12 sq.km, which includes the drainage basin of the Bor Dam .
Vegetation	It has Dry Deciduous Forest .
Flora	Teak, tendu, bamboo, tarot, and gokhru are some of the abundant species.
Fauna	Apart from tigers, the reserve is home to several other mammals like leopards, sloth bears, sambar deer , Indian bison (gaur), chital, wild boars, and more

Contagious national parks	Towards the North-east – Pench Tiger Reserve Towards the east – Nagzira Navegaon Tiger Reserve, Toward south-east- Tadoba Andhari Tiger Reserve Towards west- Melghat Tiger Reserve ; Towards north-west-Satpura Tiger Reserve
Some important facts	1) It is the smallest tiger reserve in India by area. 2) The Bor Tiger Reserve is traversed by the Bor River , which plays a significant role in the ecology and biodiversity of the reserve. 3) The Bor Tiger Reserve is strategically located between the Pench Tiger Reserve and the Tadoba-Andhari Tiger Reserve in the Nagpur and Chandrapur districts of Maharashtra. This region acts as a crucial tiger corridor connecting these two tiger reserves

Cuscuta dodder

Why in the News?

The invasive weed Cuscuta dodder is gradually choking the Chengalpet forests and Vedanthangal Bird Sanctuary. This poses a **threat to the local vegetation, ecology, and the habitat of migratory birds.**



Figure 15. Source-The New Indian Express

About Cuscuta dodder

1. It is an invasive weed **native to North America.**
2. This **rootless parasitic vine** has invaded acres of trees in the Chengalpet reserve forests and is now spreading within Vedanthangal Bird Sanctuary.
3. It has been observed that dodder **covering the canopy of Barringtonia trees**, which are favored nesting spots for migratory water birds.
4. This holoparasitic plant **forms a canopy on the host plant and sends out numerous tendrils.** It creates a dense mass that eventually **chokes and kills the host.**
5. Dodder has been **designated** as a 'declared noxious weed' in **25 countries**, where the **importation of its seeds and plant material is prohibited.** In the United States, it stands as the sole weed seed whose transportation is forbidden in all states.
6. Cuscuta seeds are **spheroid** with a **tough coat** which allows them to **survive up to 50 years in dry storage and at least 10 years in the field.**
7. Cuscuta seeds **can germinate without needing a specific stimulant**, unlike root parasites.

Note- A technical paper from the **National Research Centre for Weed Science** in India **highlights Cuscuta as a significant issue in oilseeds, pulses, and fodder crops** across Andhra Pradesh, Chhattisgarh, Gujarat, Orissa, West Bengal, and parts of Madhya Pradesh. These concerns **persist whether the crops are grown under rain-fed or irrigated conditions.**

About Vedanthangal Bird Sanctuary



Figure 16. Source- Wikipedia

1. Location- It is a **30-hectare protected area** situated in Chengalpattu District, Tamil Nadu.
2. Significant Feature- It is the **oldest water bird sanctuary** in the country.
3. Fauna- The area is a **habitat for migratory birds** like **pintail, garganey, grey wagtail, blue-winged teal, common sandpiper,** and others.
4. Ramsar site- Since 2022, it has been recognized as a **protected**

Ramsar site.

Convention on the Conservation of Migratory Species of Wild Animals

Why in the news?

The Fourteenth Meeting of the Conference of the Parties to the Convention on the Conservation of Migratory Species of Wild Animals (**COP14**) is being hosted by the Government of Uzbekistan, in Samarkand from 12-17 February 2024.

About Convention on the Conservation of Migratory Species of Wild Animals



Source-UNEP

Aspect	Details
Origin	It was signed in Bonn, Germany, on 23 June 1979
Description	It is also known as the Bonn Convention. This is an environmental treaty under the aegis of the United Nations Environment Programme .
Objective	To provide a global platform for the conservation and sustainable use of migratory animals and their habitats.
Governance	The Conference of Parties (COP) is the decision-making organ of this convention

Is it legally binding?	Activities by CMS Parties may range from legally binding treaties (called Agreements) to less formal instruments , such as Memoranda of Understanding.
Type of appendices	Appendix I lists endangered migratory species and includes prohibitions regarding the take of these species. Appendix II lists species that have an ' unfavourable conservation status ' and encourages range states to draft range-wide agreements for conservation and management of these species.
Some important points	1) It is the only global and UN-based intergovernmental organisation. established exclusively for the conservation and management of terrestrial, aquatic and avian migratory species throughout their range. 2) It acknowledges the importance of conserving migratory species .

First-ever State of the World's Migratory Species report

Why in the News?

Recently, the **Convention on the Conservation of Migratory Species (CMS) of Wild Animals** launched the first-ever **State of the World's Migratory Species report**. It was launched at the opening of a major UN wildlife conservation conference (CMS COP14).

The report was **prepared by conservation scientists at the UN Environment Programme**.

What are the key findings of the report?

1. Decline in Population – **Almost half (44 %) of the migratory species** listed under CMS are experiencing a decline in population.
2. Risk of Extinction – Over **one-fifth of CMS-listed species are at risk of extinction**, and **97% of listed fish are facing this risk**.
3. Lack of Protection – **51% of Key Biodiversity areas** important for migratory animals listed under CMS **lack protection**. Also, 58% of monitored sites for these species experience unsustainable human pressure.
4. Identified causes:
 - a. The most significant threats to migratory species are **overexploitation** and **habitat loss** caused by human activity.
 - b. **Climate change, pollution**, and **invasive species** also greatly affect migratory species.
5. Lack of coverage under CMS– Despite being listed by CMS, many migratory species remain at risk, with **399 threatened species not yet included under CMS**.

What are the key recommendations of the report?

1. Addressing illegal and unsustainable practices.

2. **Safeguarding critical sites** for migratory species.
3. **Focusing on species most threatened with extinction.**
4. Intensifying actions against climate change and pollution.
5. **Broadening CMS listings** to encompass more endangered species.

UN World Restoration Flagships

Why in the News?

The United Nations recently **designated seven initiatives** spanning Africa, Latin America, the Mediterranean, and Southeast Asia as the **UN World Restoration Flagships**.

What is UN World Restoration Flagships?



Figure 17. Source- DownToEarth

1. About – It is a component of the UN Decade on Ecosystem Restoration, led by the **UN Environment Program (UNEP)** and **the Food and Agriculture Organization**.

Note – The UN General Assembly declared the **UN Decade on Ecosystem Restoration (2021-2030)** to scale up restoration efforts of degraded ecosystems in order to combat climate change, improving food security, water supply, and biodiversity.

2. Objective– Its goal is to **stop, prevent, and reverse the decline of ecosystems** across all continents and oceans.
3. Eligibility– The awards recognize noteworthy initiatives that **contribute to global commitments aimed at restoring one billion hectares of land**.
4. Significance:
 - a. The recognition granted by the UNEP and FAO of the UN makes the initiatives **qualified for technical and financial assistance from the organization**.
 - b. **Inclusion in the UN Secretary-General's Report** to the General Assembly.

What are the seven initiatives designated under UN World Restoration Flagships?

1. The Restoring Mediterranean Forests Initiative:
 - a. It includes countries Lebanon, Morocco, Tunisia, and Turkey.
 - b. It employs an innovative approach to protect and restore natural habitats and vulnerable ecosystems. Around **two million hectares of forests have been restored across the region since 2017**.
2. The Living Indus initiative:
 - a. It was approved by the Pakistan parliament after the 2022 climate change induced floods.
 - b. It was **officially launched at the 27th Conference of Parties** to the **UN Framework Convention on**

Climate Change in Sharm el-Sheikh.

c. The initiative **designates the Indus River as a living entity** with rights to protect rivers globally.

3. The Acción Andina social movement- It is led by Peruvian conservation non-profit ECOAN aims to **protect and restore a forest area of one million hectares**.

4. The Sri Lanka Mangrove Regeneration initiative – It is a **community-led program** focused on restoring the natural balance in the ecosystem through **science-driven methods**.

5. The Terai Arc Landscape initiative:

a. It aims to **restore critical forest corridors in the India- Nepal region** with the help of local communities acting as citizen scientists, anti-poaching units, forest guards, and more.

b. It also **helped in increasing the tiger population** in the landscape shared by **India and Nepal** to 1,174.

6. Regreening agriculture in Africa- To **reverse land degradation** on 1 million hectares **across 8 countries in sub-Saharan Africa**.

7. The Growing Forests in Africa's Drylands initiative- It aims to increase from 41,000 restored hectares area to 229,000 hectares by 2030.

Kanha Tiger Reserve

Why in the News?

Recently, a male tiger from the Kanha Tiger Reserve has been transferred to the Mukundpur Safari located in Satna.

About Kanha Tiger Reserve

Aspect	Details
About	1. Kanha Tiger Reserve, also called Kanha-Kisli National Park , is a major tiger reserve and the largest national park of the Madhya Pradesh, India . 2. It is also the largest National Park in Central India . 3. Presently, Kanha area is split into two protected zones: Hallon and Banjar .
Location	1. It is situated within the Mandla and Balaghat districts of Madhya Pradesh. 2. It lies in the Maikal range of the Satpura Mountains .
History	Kanha National Park was established in 1955 and was designated as the Kanha Tiger Reserve in 1973 .
Distinct feature	It is the first tiger reserve in India to have an official mascot named 'Bhoorsingh the Barasingha' (IUCN Status: Vulnerable).
Vegetation	Tropical moist deciduous forests.
Flora	The park mainly consist of moist Sal and mixed deciduous forest where Bamboo, Tendu, Sal, Jamun, Arjun, and Lendia thrive.

Fauna	<p>1. The Park is globally recognized for saving the Barasingha from extinction and hosting the world's last population of this deer species.</p> <p>2. Other species found include tiger, leopard, dhole, bear, gaur, Indian python, and more.</p>
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Note- Kanha used to be the home of the **Baiga tribe**, a semi-nomadic group from central India. They were relocated as part of efforts to protect the critical tiger habitat.

International Single Species Action Plan

Why in the news?

The 14th Conference of the Parties on the CMS has recently adopted the Single Species Action Plan for conservation of the Hawksbill Turtle.

About International Single Species Action Plan

Description- It is the key instrument developed under the Agreement on the **Conservation of African-Eurasian Migratory Waterbirds (AEWA)**.

Objective- To implement coordinated measures to **restore migratory waterbird species** to a favourable **conservation status**.

What is Agreement on the Conservation of African-Eurasian Migratory Waterbirds(AEWA)?

Aspect	Details
Description	It is an intergovernmental treaty dedicated to the conservation of migratory waterbirds and their habitats.
Objective	To bring together countries and the wider international conservation community in an effort to establish coordinated conservation and management of migratory waterbirds throughout their entire migratory range.
Administered by	It is developed under the framework of the Convention on Migratory Species (CMS) and administered by the United Nations Environment Programme (UNEP) .
Secretariat	It is based in Bonn, Germany .
Range	The Agreement area stretches from the northern reaches of Canada and the Russian Federation to the southernmost tip of Africa. It covers 119 Range States from Africa, Europe, the Middle East and parts of Asia and Canada.
Coverage	It covers 255 species of migratory waterbirds that are ecologically dependent on wetlands for at least part of their annual cycle.
Governance	The Agreement has three main bodies:- 1) Meeting of the Parties (MOP) - the governing body of AEWA.

	<p>2) Standing Committee (StC)-responsible for steering the operations between sessions of the MOP.</p> <p>3) Technical Committee (TC)- responsible for providing scientific and technical advice.</p>
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Ponmudi hills

Why in the news?

A team of researchers has recently discovered a new species of damselfly at the Ponmudi hills in Thiruvananthapuram district of Kerala.

About Ponmudi hills

Description- Ponmudi means '**Golden Hill**' or '**Golden Peak**'.

Location- It is located in the state of **Kerala**. It is part of the **Western Ghats mountain range**.

Biosphere reserve- The hills are a part of the **Agasthyamalai landscape**, at the southernmost tip of the Western Ghats.

Significance- These hills are **biodiversity-rich**, and recently the third species of damselfly has been discovered from this region.

States/UTs must adhere to the forest definition from the Godavarman judgment-SC

Why in the News?

The Supreme Court recently issued an interim order directing States and Union Territories to adhere to the 1996 definition of "forest" from the **T.N. Godavarman Thirumalpad vs. Union of India case**.

This directive applies while identifying land recorded as forests in Government records under the 2023 amendments to the Forest Conservation Act (1980).

What was the context of the case that led to the issuance of the interim order?

1. A bench led by Chief Justice of India issued the interim order during the **hearing of several writ petitions that contested the 2023 amendments to the Forest Conservation Act (1980)**.
2. The petitioners argued that the **broad definition of 'forest'** established in the Godavarman judgment has been **restricted by Section 1A introduced by the 2023 amendment**.
3. The Court was informed that the **narrowed definition would exclude approximately 1.99 lakh square kilometers of forest land** from being considered as 'forest'.

What did the Supreme Court determine in the recent interim order?

1. The court instructed states and Union territories to **temporarily apply the dictionary definition of “forest” when evaluating land activities**. Under Rule 16, the principles outlined in the TN Godavarman judgment must continue to be followed.
2. The Court **instructed the Union of India to request detailed records from all States/UTs regarding lands identified as forests** by their respective expert committees, in accordance with the TN Godavarman judgment.
3. The court also **prohibited the establishment of zoos or safaris** in these areas **without prior court approval**.

What was TN.Godavarman Thirumulpad v Union of India (1996) judgement?

1. Background:

a. The Forest conservation act 1980 aims to safeguard India’s forests from industrial exploitation and promote reforestation.

b. It grants the **Central government authority to regulate the extraction of forest resources**, including timber, bamboo, coal, and minerals, by industries and forest-dwelling communities.

c. However, this protection **applies only to areas** officially **designated as ‘forest’ in Central or State government records**.

2. The **Supreme Court’s ruling** in the TN.Godavarman Thirumulpad v Union of India (1996) case **broadened the protection of forests**.

3. According to the ruling, areas that meet the **‘dictionary’** definition of forests are protected, **even if they have not been officially notified by the government or recorded in historical documents**.

Note– Currently in India, there is **no universally accepted definition of ‘forest’**. Each state decides its own definition.

Sub National Climate Fund

Why in News?

Recently, Goa became the **1st state** to get the **World Bank** backed **Sub National Climate Resilient Green Fund**.

About first Sub National Climate Resilient Green Fund

1. Goa’s government has partnered with the World Bank to set up a unique finance facility to strengthen climate resilience.
2. Stakeholders: Under the framework of the Blended Finance facility, the **Department of Environment, Government of Goa**, has signed Memoranda of Understanding (MoUs) with key financial institutions, including the **National Bank for Agriculture and Rural Development (NABARD)**, the **Small Industries Development Bank of India (SIDBI)**, and the **Power Finance Corporation (PFC)**.

3. The announcement of the Blended Finance facility was made during the 2024 edition of the **World Bank's India Climate and Development Partners' Meet** held in Panaji from February 19 to 21.

4. The fund is being set up as an **outcome of 100% renewable energy plan for Goa**, which was announced at the G20 Summit.

5. Significance:

a. This initiative marks a significant step **towards accessing and mobilizing concessional finance** to implement low-carbon and climate-resilient investments in Goa.

b. This facility is one of the **first sub-national facilities of its kind in India**. This will serve as a template for other states to adopt at the national level.

c. Key sectors earmarked to benefit from blended finance investments include **e-mobility, renewable energy, biodiversity conservation, coastal protection, and green tourism**, among others.

Subject: Schemes & Programmes

Pradhan Mantri Suryodaya Yojana

Why in the News?

In the Interim Budget 2024, the Finance Minister announced that one crore households will receive up to 300 units of free electricity monthly through rooftop solarization. This **announcement is part of the Pradhan Mantri Suryodaya Yojana**.

What is Pradhan Mantri Suryodaya Yojana?

Aspect	Details
About	<ol style="list-style-type: none">1. This scheme was recently announced on the auspicious occasion of the consecration of the Ram Mandir in Ayodhya by the PM Modi.2. It aims to install rooftop solar panels on one crore households.3. Under this initiative, one crore households will receive up to 300 units of free electricity monthly.
Nodal agency	Rural Electrification Corporation (REC)

What is the Significance of this Scheme?

- 1) It is an attempt to **achieve the goal of 40 GW rooftop solar capacity by March 2026**.
- 2) The scheme will help households to **save between Rs 15,000 and Rs 18,000 annually**. It will also enable them to **sell any surplus electricity to distribution companies (DISCOMs) as part of the net metering policy**.
- 3) The **net-metering policy** permits rooftop solar power users to feed their excess power back into the grid, thereby reducing their electricity expenses.

Note- The mechanism of Net Metering was **started in India in 2009**. The Ministry of New and Renewable Energy (MNRE) overseeing its implementation.

What other major announcements have been made for the energy sector in Budget 2024?

1) A '**viability gap funding**' (VGF) will be provided for harnessing **offshore wind energy** potential for an initial capacity of **one gigawatt**. These are wind farms located in the sea.

Note- The government aims to install 500 GW of renewable energy by 2030. As part of this initiative, the government **aims to achieve a 10 GW offshore wind capacity by 2030**. Presently, India's onshore wind energy capacity amounts to 44 GW.

Vidyanjali Scholarship Programme

Why in the News?

The Union Minister of Education recently launched the EdCIL Vidyanjali Scholarship Programme.

What is Vidyanjali Scholarship Programme?

Aspect	Details
About	1. This initiative ensures that meritorious Navodaya Vidyalaya students lacking financial means have access to high-quality learning systems. 2. It facilitates a smooth transition from secondary to higher education while also providing financial support .
Nodal Ministry	Ministry of Education
Implementing agency	EdCIL (Educational Consultants India Limited)
Funding	It secures support and funding from non-governmental partners and private entities, including CSR grants, national and international donors , as well as impact investors.
Beneficiaries	Students of Class XI and XII attending Navodaya Vidyalayas nationwide .
Features	1. A fintech platform created for Vidyanjali will distribute sponsorships directly to students through Direct Benefit Transfer (DBT) . 2. This platform will be instrumental for collecting data, managing student applications, monitoring student progress, tracking grant distribution , overseeing fund usage, creating impact reports for SDG progress , recognizing notable student achievements, and publicly thanking funders, among other functions.

What is EdCIL (Educational Consultants India Limited)?

1. It is the **sole Public Sector Undertaking (PSU) under the Ministry of Education**.
2. It was incorporated under the **Companies Act of 1956**, on June 17, 1981.
3. It is classified as a '**Mini Ratna Organization**' by the Government of India.

4. It provides **consulting and technical services in Education and Human Resource Development**, both domestically and internationally.

Kilkari programme

Why in the news?

Health ministry has launched Mobile Health Service 'Kilkari' and Mobile Academy in Maharashtra and Gujarat to improve health services..

About Kilkari programme

Aspect	Details
About	'Kilkari' means 'a baby's gurgle'. It is a centralized interactive voice response (IVR) based mobile health service.
Objective	To improve families' knowledge and uptake of life-saving preventative health practices.
Funding	Cost is completely born by the central government. It is centrally hosted by the Ministry of Health and Family Welfare (MoHFW).
Implementation	The programme is integrated with the centralized Reproductive Child Health (RCH) portal of MoHFW's.
Features	1) It delivers free, weekly, time-appropriate 72 audio messages about pregnancy, childbirth, and childcare directly to families' mobile phones. 2) It starts sending messages from the second trimester of pregnancy until the child is one year old . 2) Women who are registered in Reproductive Child Health (RCH) portal also receive a weekly call with pre-recorded audio content directly on their mobile phones 3) Kilkari audio messages are present in the form of the voice of a fictitious doctor character called Dr. Anita.
Current state of implementation	It is under implementation in 18 States / UTs of India.

What is mobile academy?

- 1) It is a free audio training course designed to expand and refresh the knowledge of [Accredited Social Health Activists \(ASHA\)](#). This course is provided on their **mobile phones** to improve their **communication skills**.
- 2) Accessibility-It is an anytime, anywhere training course that can train **thousands** of ASHAs simultaneously via mobile phone.
- 3) Languages-It is available in **six languages** viz. Hindi, Bhojpuri, Oriya, Assamese, Bengali & Telugu versions.
- 4) Current state of operation-It is operational in 17 States/UTs except Chandigarh.

PM Matsya Kisan Samridhi Sahyojna

Why in the news?

The Central government has recently approved the “Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana (PM-MKSSY).

About Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana (PM-MKSSY)

Aspect	Details
About	The PM-MKSSY is a central sector sub-scheme under the Pradhan Mantri Matsya Sampada for formalisation of the fisheries sector.
Objective	<ol style="list-style-type: none"> 1) Gradual formalisation of the unorganized fisheries sector through self registration of fishers, fish farmers 2) Facilitating access to institutional financing, fisheries sector micro and small enterprises. 3) Providing one-time incentive to beneficiaries for purchasing aquaculture insurance.
Duration	Period of next four 4 years from FY 2023-24 to FY 2026-27 in all States/Union Territories.
Funding	Total outlay- Rs.6,000 crore- 50% i.e. Rs.3,000 crore will be provided by public finance including the World Bank and the AFD external financing , and rest 50% i.e.Rs.3,000 crore will be provided by private sector/benefeciaries .
Intended benefeciaries	Fishers, Fish (Aquaculture) Farmers, Fish workers, Fish Vendors or such other person directly engaged in fisheries value chain. Micro and Small enterprises,SHGs, Fish Farmers Producer Organizations (FFPOs) and Startups in fisheries sector .
Digital platform	National Fisheries Digital Platform will be created to provide 40 lakh small and micro-enterprises work-based identities.
Major components	<ol style="list-style-type: none"> 1) Formalisation of fisheries sector 2) Facilitating adoption of aquaculture insurance 3) Adoption and expansion of fish and fishery product safety and quality assurance systems 4) Project management, monitoring and reporting.
Significance	<ol style="list-style-type: none"> 1) It will create 1.7 lakh new jobs, with a special emphasis on employing 75,000 women. 2) It will improve value chain efficiency and ensuring safe, quality fish by supporting 55,000 targeted micro and small enterprises. 3) It will ensure environment friendly fisheries sector. 4) It will Facilitate Ease of Doing Business and transparency.

RMNCAH+N Strategy under National Health Mission

Why in the news?

The RMNCAH+N strategy promotes links between various interventions across thematic areas to enhance coverage of health care services.

About RMNCAH+N Strategy

Introduction- The Government of India implements Reproductive Maternal Newborn Child Adolescent Health Plus Nutrition (RMNCAH+N) strategy under National Health Mission.

Objective- To address the **problem of anemia and malnutrition** among women and children across the county

Various intervention under RMNCAH+N strategy

- 1) Mothers' Absolute Affection (MAA)-It is implemented to improve **breastfeeding** coverage which includes early initiation of breastfeeding and exclusive breastfeeding for first six months
- 2) Nutrition Rehabilitation Centres (NRCs)-They are set up at **public health facilities** to provide in-patient medical and **nutritional care to children under 5 years** of age suffering from Severe Acute Malnutrition (SAM) with medical complications.
- 3) Anemia Mukh Bharat (AMB) -This programme is implemented to reduce **anemia** among six beneficiaries age group - children (6-59 months), children (5-9 years), adolescents (10-19 years), pregnant and lactating women and in women of reproductive age group (15-49 years) in life cycle approach through implementation of six interventions via robust institutional mechanism.
- 4) National Deworming Day (NDD)-Under this programme, **albendazole tablets** are administered in a single fixed day approach via schools and anganwadi centres in two rounds (February and August) to reduce the soil transmitted helminth (STH) infestation among all children and adolescents (1-19 years).
- 5) Monthly Village Health, Sanitation and Nutrition Day (VHSND)-It is an outreach activity at Anganwadi centers for provision of **maternal and child care** including nutrition in convergence with the ICDS.
- 6) MCP Card and Safe Motherhood Booklet-These are distributed to the pregnant women for educating them on **diet, rest, danger signs of pregnancy**, benefit schemes and institutional deliveries.

First Skill India Centre

Why in the news?

Union Minister of Education and Skill Development & Entrepreneurship, Shri Dharmendra Pradhan has recently inaugurated the first Skill India Centre (SIC) of the country in Sambalpur.

About First Skill India Centre

Aspect	Details
Location	It is located in Sambalpur, Odisha .
Objective	1) To empower youth with industry-relevant skills. 2) To democratize access to quality education and establish a level-playing field for the aspiring youth .
Implementation	The National Skill Development Corporation (NSDC) will designate a Centre Manager who will monitor the implementation of training programs.
Salient features	1) The centre is equipped with best-in-class infrastructure , cutting-edge technologies and modern facilities . 2) The centre will play a pivotal role in designing curriculum along with industry experts. The curriculum will be aligned with the changing industry needs . 3) The centre will offer courses in sectors which are high in demand . For example- media and entertainment, leather, tourism and hospitality, IT-ITeS, banking etc.
Significance	1) It will revolutionize the skilling landscape in India by offering enhanced accessibility, personalized learning experiences , and improved career guidance to learners. 2) It will enable learners to acquire relevant skills and stay updated with industry trends. 3) It will harness the potential of demographic dividends to promote rural development, nurture local entrepreneurship and advance socio-economic growth .

Flood Management and Border Areas Programme (FMBAP)

Why in the news?

The Cabinet has recently approved the proposal for continuation of centrally sponsored Scheme- Flood Management and Border Areas Programme (FMBAP).

About Flood Management and Border Areas Programme

Aspect	Details
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Factly Compilation for the Month of February 2024

Description	The Scheme “FMBAP” has been framed by merging the components of two continuing XII Plan schemes titled “ Flood Management Programme (FMP) ” and “ River Management Activities and Works related to Border Areas (RMBA) ”.
Objective	To assist the State Governments to provide reasonable degree of protection against floods in critical areas by adopting optimum combination of structural and non-structural measures.
Coverage	The FMBAP Scheme will be implemented throughout the country for effective flood management, erosion control and anti-sea erosion.
Components	The Scheme has two components:- 1) Flood Management Programme (FMP) – This includes work related to flood control , anti-erosion, drainage development and anti-sea erosion. 2) River Management and Border Areas (RMBA) component –This includes flood control and anti-erosion works on common border rivers with neighbouring countries , including hydrological observations and flood forecasting.
Funding pattern	1) Under Flood Management Programme (FMP) –The pattern of funding that is to be followed is for Special Category States (8 North-Easter States and Hilly States of Himachal Pradesh, Uttarakhand and UT of Jammu & Kashmir)- 90% (Centre) and 10% (State) For General/ Non-Special Category States – 60% (Centre) and 40% (State) 2) Under River Management and Border Areas (RMBA) component - 100% central assistance .

Subject: Reports & Indices/Summits

RBI report on Panchayati Raj Institutions (PRIs)

Why in the News?

According to a report by the Reserve Bank of India (RBI) on the **finances of Panchayati Raj Institutions for 2022-23**, local taxes and fees **contributed only 1.1 percent to Panchayats’ total revenue**.

What are the key findings of the report?

- 1) Decline in Panchayat average revenue – According to the report, the **average revenue per Panchayat** (including taxes, non-taxes, and grants) stood at 21.2 lakh in 2020-21, increased to 23.2 lakh in 2021-22, and then slightly declined to **21.23 lakh in 2022-23**.
- 2) Panchayat own revenue sources:
 - a. During the study period, the Panchayats’ own revenues (**Local taxes and fees**) accounted for merely **1.1 percent of their total revenue**.

Factly Compilation for the Month of February 2024

b. **Non-tax revenue**, primarily from Panchayati Raj programmes and interest earnings, constituted **3.3 per cent of the total revenue receipts**.

3) Grant reliance:

a. Panchayats rely heavily on property taxes, fees, fines, and grants, with approximately **95% of their revenue coming from grants** provided by higher levels of government.

b. Specifically, **80% of the revenue was from Central government grants**; only **15% was from State government grants**.

4) Low Expenditure:

a. The average Panchayat expenditure dropped from 17.3 lakh in 2020-21 to 12.5 lakh in 2022-23, mainly **due to higher spending during the pandemic**.

b. Goa, Karnataka, Odisha, Sikkim, Kerala, and Tamil Nadu recorded the **highest average Panchayat expenditures**.

c. The revenue expenditure of panchayats accounts for **less than 0.6% of the gross state domestic product** across all states.

What are the source of Finance for PRIs?

1) **Grants from the Central Finance Commission** (tax devolution) and other grants provided by the Central Government.

2) Revenue collected by the State government on behalf of local bodies (State Finance Commissions Transfer), **including tolls, taxes, duties, and fees, as well as grants-in-aid**.

3) **As per Article 243-H**, PRIs are empowered to levy, collect, and distribute taxes, duties, tolls, and fees.

First-ever Digital India futureSKILLS Summit

Why in the news?

Ministry of Electronics and Information Technology (MeitY), is hosting the first-ever FutureSKILLS Summit in Guwahati on February 15, 2024.

About First-ever Digital India futureSKILLS Summit

Aspect	Details
Hosted by	National Institute of Electronics and IT at Guwahati
Concerned ministry	Ministry of Electronics & IT
Objective	To deliberate on strategies for catalysing future-ready talent for India & the World. To forge partnerships with industry and academic institutes nationwide to ensure that curricula is aligned with industry demands and standards.

Features	<p>1) It will have over 20 strategic collaborations between NIELIT and Intel, HCL, Microsoft, Kindryl, IIM Raipurs etc.</p> <p>2) It will have 1000 Prominent Attendees and over 30 Innovative Exhibitions.</p> <p>3) It will have four-panel discussions on the following themes:- A) Semicon India #futureSKILLS B) IndiaAI #futureSKILLS C) Cyber Security & Emerging Technologies for the #futureSKILLS D) Digital #futureSKILLS – India’s Talent for Global Workforce.</p>
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Subject: Art & Culture

Subika painting

Why in the news?

Invaluable art forms of Manipur are on the brink of extinction due to neglect.

About Subika painting



Source-The Indian Express

Aspect	Details
Type	It is an early visual art form of Manipur.
Community	It is a style of painting which is linked to the Meitei community's cultural history.
Manuscript	It is surviving through its six manuscripts – Subika, Subika Achouba, Subika Laishaba, Subika Choudit, Subika Cheithil and Thengrakhel Subika.
Origin	The royal chronicle, Cheitharol Kumbaba , doesn't mention a specific founder. However, experts estimate the use of Subika paintings since the 18th or 19th century .

Key points	<ol style="list-style-type: none">1) It is a composition of cultural motifs made by pre-existing features and other influences encouraged by cultural world-views of the community.2) The illustrations of Subika Laishaba have visual language from the elements such as lines, shapes, forms, colours, and patterns.3) These visual images become Meitei's cultural motif, and structure to create visual effects as well as express cultural significance.4) The visual images are painted on handmade paper.5) The materials of manuscripts are prepared indigenously, either handmade paper or barks of trees.
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Kokborok language

Why in the news?

The Tripura Board of Secondary Education (TBSE) has announced that both Roman and Bengali scripts will be allowed for Kokborok exams.

About Kokborok Language

Description- Kokborok is the language spoken by the Borok people belonging to the State of Tripura. The term kok means "**verbal**", and borok means "**people**" or "human".

Family-It is a Sino-Tibetan language and can be traced back to at least the 1st century AD when the historical record of Tripuri kings started to be written down in a book called the **Rajratnakar**.

Official status-It is one of the **state languages** of Tripura, along with Bengali. It was notified on January 19, 1979.

Dhokra Shilpkala Sculpture

Why in the news?

Chhattisgarh's Ocher Studio is helping the artisans to preserve India's 4,000-year-old craft-Dhokra Shilpkala.

About Dhokra Shilpkala Sculpture



Source-Gaon connection

Factly Compilation for the Month of February 2024

	<p>Pallavas gained autonomy and grew independent</p> <p>3. They gradually moved southward and established their capital in Kanchipuram during the 4th century CE.</p>
Foreign Traveler Account	<p>1. Chinese traveler Hiuen Tsang, who visited Kanchipuram during the Pallava era, praised their kind rule.</p> <p>2. He portrayed Bodhidharma, the founder of the Chan (Zen) school of Buddhism in China, as a prince of the Pallava empire.</p>
Notable Kings	<p>During the reigns of Mahendrarvarman I (571 – 630 CE) and Narasimhavarman I (630 – 668 CE), the Pallava realm experienced increased wealth and strength.</p>
Architecture	<p>1. The Pallava Dynasty was renowned for their contributions to Dravidian architecture, particularly in temple construction.</p> <p>2. They played a pivotal role in shifting from rock-cut architecture to stone temples.</p> <p>3. Mahabalipuram, a significant hub of art, architecture, and literature during Pallava rule, showcases their remarkable achievements.</p> <p>4. Narasimhavarman II commissioned the construction of the Kailasanatha Temple in Kanchipuram and the Shore Temple.</p>
Religion	<p>They embraced Shaivism, a local religion, and identified as Dravidians.</p>
Combat	<p>1. The Pallava Dynasty engaged in persistent battles with the Chalukya Dynasty to the north and the Tamil kingdoms of Chola and Pandyas to the south.</p> <p>2. Their conflicts with the Chalukyas of Badami persisted until they were eventually subdued by the Chola kings in the 8th century CE.</p>
Decline	<p>1. The rise of the Rashtrakutas led to the decline of the Pallava Dynasty.</p> <p>2. In 897 AD, Vijayalaya, the Chola King, defeated Aparajitavarman, the last Pallava King, completely.</p>

Morodharo- A Harappan settlement near Dholavira

Why in the news?

Archaeologists have recently discovered a Harappan-era fortified settlement named Morodharo near Dholavira.

About Morodharo

TIMELESS TREASURES

- This is a fortified settlement dating back to the Harappan era
- The fortification measures 102 m east to the west and 58 m north to the south
- The thickness of the wall is an average of 3.3 m
- It has a 10X10 m platform on the south-west side and a well on the north-east side
- Burial cairns, which are mounds of stones to demarcate a boundary, found



Perforated jar sherds

- Harappan pottery with perforated jar sherds, reserved slipware, and terracotta cakes unearthed
- All these items found have a striking resemblance to those found in Dholavira



LODRANI
Dholavira Rapar
GUJARAT

Source—the Times of India

Aspect	Details
Description	It is a fortified settlement dating back to the Harappan-era .
Location	Kutch District, Gujarat
Features	<ol style="list-style-type: none"> 1) The settlement looks mature (2,600-1,900BCE) to late (1,900-1,300 BCE) Harappan. 2) Burial cairns, which are mounds of stones to demarcate a boundary, are also found here. 3) Harappan pottery with perforated jar sherds, reserved slipware, and terracotta cakes were unearthed. 4) All these items have a striking resemblance to those found in Dholavira.
Significance	As per archaeologist, this site and Dholavira both were dependent on the sea. This suggests the presence of navigable waters near Rann of Kutch in ancient times.

Shompen Tribe

Why in the news?

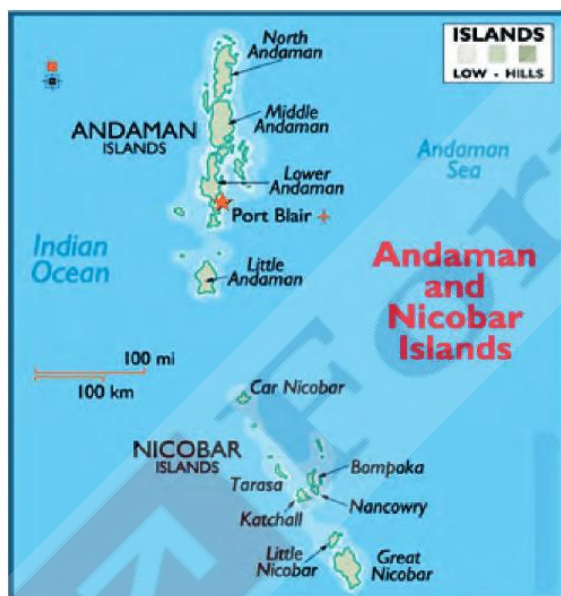
India's president recently visited an island earmarked for multi-billion-dollar development. As per some experts, the project could wipe out the indigenous Shompen tribe.

About Shompen Tribes

Aspects	Details
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Description	The Shompen or Shom Pen are the indigenous people of the interior of Great Nicobar Island . They are designated as a Particularly Vulnerable Tribal Group within the list of Scheduled Tribe.
Characteristics	1) Nature-They are one of the most isolated tribes on Earth. Most of them are uncontacted , refusing all interactions with outsiders. 2) Livelihood-They are semi-nomadic hunter-gatherers , and their main sources of livelihood are hunting, gathering, fishing, and a little bit of horticultural activities in a rudimentary form. 3) Food-They collect a wide variety of forest plants , but their staple food is the pandanus fruit , which they call larop .
Population	According to the Census (2011) , the estimated population of Shompen is 229.
Language	They speak their own language , which has many dialects. Members of one band do not understand the dialect of the other.
Social structure	1) They have nuclear families comprising husband, wife, and their unmarried children. 2) The family is controlled by the eldest male member , who controls all activities of the women and kids. 3) Monogamy is the general rule, although polygamy is allowed too.

Some other important tribes of Andaman & Nicobar Islands



Source- Reseach Gate

Tribes	Location
Andamanese	Strait island
Jarawas	Middle and south Andaman
Nicobarese	Great Nicobar
Onges	Little Nicobar
Sentinelese	Sentinel island

Rani Chennamma

Why in the News?

To commemorate the **200th anniversary of Rani Chennamma's rebellion** against the British, various social groups across the country are organizing a national campaign called "**Naanoo Rani Chennamma**" (I am Rani Chennamma too).

The campaign aims to empower women to oppose patriarchal, anti-democratic, and casteist forces in the country, inspired by Rani Chennamma's legacy of bravery and defiance.

About Rani Chennamma



Figure 18. Source- Wikipedia

1. About:

- a. Rani Chennamma was an **Indian freedom fighter** and **Rani of the Kittur**, a former **princely state in Karnataka**.
- b. She **led the Kittur revolt of 1824**, which stands as one of the earliest woman-led anti-colonial struggles against British rule in India.

2. Birth- She was born on October 23, 1778, in Kagati, a small village in Belagavi district of Karnataka.

3. Marriage- She married Raja Mallasarja of Kittur at 15 and and played a crucial role in defending her kingdom after his death.

4. Struggle against the British:

- a. She initiated a rebellion against the British in 1824 after they declined to acknowledge her adopted son as the successor according to the '**doctrine of lapse**'.
- b. Although she was **initially successful**, the **British captured Kittur Fort in their third attempt** in December 1824, **resulting in Rani Chennamma's imprisonment** and **eventual death in 1829**.

5. Significance- Her brave resistance to colonial oppression has made her a symbol in Karnataka's political imagination and an important figure in Indian history.

Badami Chalukya

About Badami Chalukyas

1) Origin- Pulakesi I established the Chalukya dynasty in 550. He took Vatapi (Badami in Bagalkot district, Karnataka) under his control and made it his capital.

Historians refer to Pulakesi I and his **descendants** as the Chalukyas of Badami.

2) Art and Architecture- It saw the evolution and proliferation of a new style of architecture known as **Vesara**, a combination of the South Indian and the North Indian building styles.

The rock-cut temples of **Pattadakal**, a **UNESCO World Heritage Site**. Badami, and Aihole are the most celebrated monuments

3) Coinage– Their coins had Nagari and Kannada legends. They minted coins with symbols of **temples**, **lion** or boar facing right, and the lotus.

4) Religion– They initially followed **Vedic Hinduism**. Later, from the time of Vikramaditya I, the people took an inclination towards Shaivism, and sects like **Pashupata**, **Kapalikas**, and **Kalamukhas** emerged.

They also patronised **Jainism**. For ex- Badami cave temples and other Jain temples in the Aihole complex signifies their religious faith.

What was the governance structure of Badami Chalukyas?

1) Defence–

A) The army consisted of infantry, cavalry, elephant corps, and a powerful navy.

B) **Hiuen-Tsang** mentioned the Chalukya army that had hundreds of elephants, which were intoxicated with liquor prior to the battle.

C) **Rashtrakuta** inscriptions use the term **Karnatabala** to refer to their powerful armies.

2) Taxation– The government levied taxes called **Herjunka**, **Kirukula**, **Bilkode**, and **Pannaya**.

3) Administrative division– The empire was divided into **Maharashtrakas** (provinces), then into smaller **Rashtrakas** (Mandala), **Vishaya** (district), **Bhoga** (group of ten villages).

4) Local governance– Groups of mahajanas (learned brahmins) looked after agraharas. **Agraharas** were the place of higher learning.

There were many **autonomous regions** which were ruled by feudatories like Alupas, Gangas, Banas, and Sendraka.

Subject: Geography & Places in News

Mekong River

Why in the news?

A multibillion-dollar dam project on river Mekong in Laos's Luang Prabang city, may result in the city losing its UNESCO status.

About Mekong river



Source-Radio Free Asia

Aspect	Details
About	It is a trans-boundary river in East Asia and Southeast Asia . It is the world's twelfth-longest river and the third-longest in Asia.
Origin	It originates from the Sanjanyuang in the Tibetan Plateau in China.
Mouth	The river drains into the South China Sea
Countries	It flows through six Asian countries : China, Myanmar, Laos, Thailand, Cambodia and Vietnam . It covers a total length of 2700 km.
Biodiversity	It is the second most biodiverse river basin in the world, after Amazon River Basin. It contains about 20,000 plant species, 1,200 birds, 430 mammals, 800 amphibians and reptiles, and 850 fish species.
Capital cities on its banks	1) Vientiane – the capital of Laos 2) Phnom Penh –the capital of Cambodia
Significance for India	1) The Mekong Ganga Cooperation (MGC) is an initiative by six countries – India and five ASEAN countries – Cambodia, Laos, Myanmar, Thailand, and Vietnam. 2) Mekong Delta is a potential source of regional tension due to an increasing number of hydroelectric projects that are altering the flow and raising concerns of ecological damage.

Note-Luang Prabang– It is a **UNESCO World Heritage Site** where as per legend **Buddha** once rested during his travels.

Messinian Event

Why in the news?

The Geological Institute of Israel recently uncovered an underwater canyon near Cyprus that dates back to the Messinian Event.

About Messinian Event

- 1) It is also known as the **Messinian Salinity Crisis (MSC)**
- 2) It was a **geological event** during which the Mediterranean Sea went into a **cycle of partial or nearly complete desiccation (drying up)**. It was one of the most severe ecological crises in the Earth's history.
- 3) The MSC began approximately **6 million years ago (MYA)** and lasted until around **5.3 MYA**.

Aral Sea Shrinking

Why in the News?

Recently, NASA's Earth Observatory shared an **in-depth analysis** of the factors contributing to **the disappearance of the Aral Sea**.

What are the factors responsible for disappearance of Aral Sea?

1. As per the space agency's findings, in 1960, the Soviet Union initiated a significant **water diversion project** by redirecting the **Syr Darya and Amu Darya rivers** for irrigation purposes. Note- The Aral Sea formed from water flowing from the Syr Darya and the Amu Darya rivers, which relied on glacial melt.
2. While the project caused the desert region surrounding the sea to flourish, it had a **catastrophic effect on the Aral Sea**. The waterbody began to dry up gradually and is now close to completely disappearing.

About Aral Sea



Figure 19. Source-Research gate

1. Borders- It **marks the border between Kazakhstan to the north and Uzbekistan to the south**.

2. Served fourth Largest Inland Water Body- It was **once served as a vast saltwater lake in Central Asia** and ranked as the world's fourth largest inland water body.

3. Sea remains-The **remaining fragments of the sea** lie in the climatically harsh core of Central

Asia, situated east of the Caspian Sea.

4. Emergence-The Aral Sea depression emerged towards the conclusion of the **Neogene Period**, spanning from approximately 23 to 2.6 million years ago.

5. Drainage- It encompasses drainage from Uzbekistan and parts of Kazakhstan, Tajikistan, Afghanistan, Turkmenistan, Iran, and Kyrgyzstan.
6. Climate- It is known for its harsh climate with hot summers, cold winters, and temperature changes throughout the day.

Stone Age wall discovered in Baltic Sea

Why in the News?

Recently, scientists have discovered a Stone Age wall beneath the Baltic Sea in Germany. It is believed to be the oldest megastructure constructed by humans in Europe..

About Baltic Sea



Figure 20. Source- Wikipedia

1. Location- It is a semi-enclosed sea located in Northern Europe.
2. Branch- It is a branch of the North Atlantic Ocean, stretching northward from southern Denmark towards the Arctic Circle. It divides the Scandinavian Peninsula from the rest of mainland Europe.
3. Borders and Coastline- It has about 8,000 kilometers of coastline, shared by many countries such as Sweden, Poland, Lithuania, Latvia, Finland, Estonia, Germany, Denmark, and Russia.
4. Size- It occupies an area of about 377,000 square kilometers. The sea stretches approximately 1,600 kilometers in length and is about 193 kilometers wide.
5. Maritime link:
 - a. It connects to the White Sea through the White Sea Canal and to the German Bight of the North Sea via the Kiel Canal.
 - b. It also connects to the Atlantic Ocean through the Danish Straits.
6. Gulf- The Baltic Sea has three main gulfs: the Gulf of Bothnia to the north, the Gulf of Finland to the east, and the Gulf of Riga slightly to the south of that.
7. Inflows- Over 250 rivers and streams flow into the Baltic Sea. The Neva River is the largest among them.
8. Islands: The Baltic Sea is inhabited by more than 20 islands and archipelagos. Gotland, situated near the Swedish coast, is the largest island in the Baltic Sea.

Distinct Features:

- a. It is commonly referred to as the **largest brackish inland water body in the world**.
- b. The Baltic Sea's water is **less salty compared to the world's oceans** because of the inflow of freshwater from surrounding land and the sea's shallow depth.

About Baltic Nations

1. Countries– **Estonia, Latvia, and Lithuania**, collectively known as the Baltic Nations.
2. Borders– They are bordered by the Baltic Sea to the west and north, by Russia to the east, by Belarus to the southeast, and by Poland and a Russian exclave to the southwest.

Kaji Nemu

Why in the News?

The Assam government recently declared the GI-tagged 'Kaji Nemu' (Citrus Limon) as the official State Fruit.



Figure 21. Source- The New Indian Express

About Kaji Nemu

1. About– It is a **variety of lemon (Citrus Limon)** that is **native to Assam**.
 2. Shape– It possesses an **elongated and oblong shape** in contrast to other lemon varieties.
 3. Distinctive traits:
 - a. It is **much juicier than other varieties of lemons**.
 - b. It is renowned for its **distinct fragrance** and **antioxidant properties**. It is traditionally **associated with Assamese cuisines**.
 - c. It is considered a **powerhouse of nutrients**, enhancing overall health.
 4. Cultivation– It is cultivated across nearly all districts of the Assam and is **available throughout the year**.
 5. GI Tag– In 2019, Kaji Nemu was awarded a GI (Geographical Indication) tag.
- Note– Assam boasts a significant diversity of citrus, with a **total of 16 species and 52 hybrid varieties**.

Rip currents

Why in the News?

Recently, The Indian National Centre for Ocean Information Services (INCOIS) and the [Indian Space Research Organisation \(ISRO\)](#) have initiated a joint project aimed at the surveillance and issuance of operational forecast alerts regarding rip currents.

Rip Current

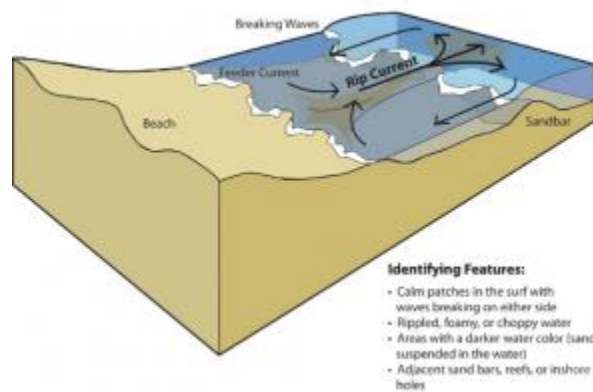


Figure 22. Source- National Geographic Society

What are Rip currents?

1. About- Rip currents are **strong currents that flow from the shore back to the open sea or lake**. They present a **widely recognized coastal hazard on beaches worldwide**.

2. Formation:

a. They **form due to beach shapes and can happen in rocky or sandy beach areas**.

b. Beach topography encompasses land features such as dunes and water features like **sandbars, piers, and reefs**, where rip currents often form.

c. They **may form in spaces between sandbars, piers, or sections of a reef**.

3. Hazards for swimmers and beachgoers:

a. Rip currents are one of the most significant hazards for beachgoers and swimmers, as they **can swiftly carry people out to sea**.

b. However, it's important to note that rip currents **do not pull swimmers underwater**; rather, **they pull swimmers away from the shore**.

Solar Maximum

Why in the news?

A new visualization from the European Space Agency (ESA) has recently shown the increase in activity on the sun's surface as it approaches solar maximum this year.

About Solar Maximum

1) The sun goes through a **natural solar cycle** approximately every **11 years**. The cycle is marked by the **increase and decrease** of **sunspots**, which are visible as dark blemishes on the sun's surface.

2) The **greatest number of sunspots** in any given solar cycle is designated as "solar maximum." Solar maximum occurs roughly in the **middle** of each cycle.

3) As the sun approaches the solar maximum, more **brilliant explosions**, dark sunspots, **loops of plasma**, and swirls of super-hot gas are observed.

What is the impact of Solar Maximum?

- 1) The increased solar activity can cause **extreme space weather events**, including solar flares and eruptions.
- 2) It can also disrupt **radio communications** and the **power grid** and have serious health consequences for astronauts.

Badwater Basin In Death Valley

Why in the News?

In North America's driest region, Badwater Basin in Death Valley has been persisting and expanding as a temporary lake. This Phenomenon has been documented by NASA through satellite imagery.

About Badwater Basin

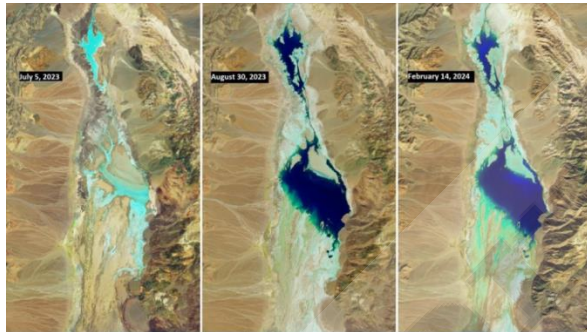


Figure 23. Source-DownToEarth

1. About- It is an **endorheic basin**. The endorheic nature implies that water does not naturally exist there, but rather flows into it. It often leads to swift evaporation and the formation of temporary lakes.
2. Location- It is located in **Death Valley, California, USA**. It holds the distinction of being the **lowest point in North America**, with an elevation of 282 feet (86 meters) below sea level.
3. Nearby landscape- It is just 84.6 miles east-southeast of **Mount Whitney**, the highest point in the United States.
4. Recent phenomenon which has been observed:
 - a. Recent heavy rainfall, following Hurricane Hilary in August 2023, has altered the landscape of the region and has resulted in the **appearance of Manly Lake**.
 - b. The lake **initially reduced in size**, but surprisingly persisted through the fall and winter seasons. Its recovery in February 2024 was facilitated by a robust **atmospheric river** that replenished its waters.
 - c. In Death Valley, which usually sees just 51 millimeters of rain per year, there was an extraordinary **125 millimeters rainfall in the last six months**.

About Death Valley

1. About:

- a. It is a desert valley in Eastern California, US in the northern **Mojave Desert**, bordering the Great

Basin Desert.

b. It is one of the **hottest places on Earth**, along with deserts in the Middle East and the Sahara.

2. Climate: Death Valley has a scorching desert climate, with summer temperatures frequently exceeding 100°F (38°C). It holds the **world record** for the highest reliably recorded air temperature, **hitting 134°F (56.7°C) in July 1913 at Furnace Creek**.

3. Flora and Fauna: Even in its tough conditions, Death Valley hosts diverse plant and animal life well-suited to desert settings. Typical plants include **creosote bush, desert holly**, and different types of cacti. The park is home to wildlife like **bighorn sheep, coyotes, kit foxes**, and various reptiles.

Flue Cured Tobacco

Why in the News?

The Government of India recently approved an interest-free Loan to FCV Tobacco growers in Andhra Pradesh.

About Flue Cured Tobacco



Figure 24 Source- virgotobacco

1) About: Flue-Cured Virginia (FCV) Tobacco is a type of tobacco that undergoes a specific curing process to achieve its desirable qualities.

2) Characteristics:

a) FCV tobacco is primarily used for cigarette production.

b) It contains a higher sugar content.

c) It has medium to high levels of nicotine.

d) It is rich in natural tannins which contributes to its mild

and slightly sweet flavour and aroma.

3) Appearance: It is **yellow to orange in colour**. These colour appear when it is dried using a process called flu-curing.

4) Curing Process:

a) Curing is the process by which harvested tobacco leaves are prepared for the market. In the case of FCV tobacco, this process is well-standardized.

b) The **primary goal of curing** is to achieve specific qualities in the cured leaf while removing excess moisture.

c) There are **three traditional methods of tobacco curing**:

i) Air-Cured: Leaves are dried naturally in the open air.

ii) Fire-Cured: Leaves are exposed to smoke and heat during the drying process.

ii) Flue-Cured: This method is used for FCV tobacco. Each curing method results in a tobacco product with distinct characteristics based on nicotine content and aroma.

5) Key Geographical Production: In India, FCV tobacco is mainly produced in two states: a) **Andhra Pradesh** and b) **Karnataka**.

It is also produced in Bangladesh, in regions of Kushtia, Chittagong and Rangpur.

Subject: Defence Exercises

NATO Exercise- Steadfast Defender 2024



Figure 25. Source- The Hindu

Why in the news?

Recently, the North Atlantic Treaty Organization (NATO) started the Steadfast Defender 2024 exercise.

About Steadfast Defender 2024

1) About: Steadfast Defender 24 is **NATO's largest military exercise** since the Cold War.

2) Duration: It is being held from **January to May**

2024.

3) Location: The first part of the exercise focuses on securing the **Atlantic up to the Arctic** and the second part focuses on moving troops across **Europe, from the High North to Central and Eastern Europe**

4) Purpose: Its main purpose is **to highlight its collective military might and commitment** to the security of its members.

5) Participants: It has approximately 90,000 troops from all 31 NATO Allies and Sweden as Invitee.

6) Features:

a) The exercise will **showcase a wide range of military equipment**, with more than 50 naval vessels, from aircraft carriers to destroyers, and an air force consisting of over 80 units, including fighter jets, helicopters, and drones

- b) The ground forces will **demonstrate NATO's capabilities** with at least 1,100 combat vehicles, including 133 tanks and 533 infantry fighting vehicles.
- c) The drills are strategically designed **to rehearse Nato's execution of its regional plans**. These plans are the first of their kind in decades.
- d) It outlines the **alliance's response mechanisms** to potential threats, addressing concerns regarding Russian aggression.

Subject: Miscellaneous

Grammy Awards

Why in the news?

The fusion band, Shakti, bagged the Global Music Album Winner at the Grammy Awards.

About Grammy Awards

Aspect	Details
About	The Grammy Award is a prestigious accolade presented annually by the Recording Academy to honour outstanding achievements in the music industry.
History	The Grammy Awards were first established in 1959 to honour artistic and technical excellence across various music genres . The name "Grammy" is derived from "gramophone," reflecting the original trophy's design resembling a gramophone.
Categories	1) It includes a wide range of categories covering such as pop, rock, rap, country, classical, jazz, and many more . 2) The "General Field" are four awards that are not restricted by genre. 3) They are Album of the Year, Record of the Year, Song of the Year, Best New Artist, and genre-specific awards.
Nomination and selection process	1) The nomination process involves submissions by record companies, artists, and other industry professionals. 2) The Recording Academy members then vote to determine the final nominees. 3) Winners are selected by voting members of The Recording Academy, consisting of music professionals across various fields.
Some interesting facts.	1) There are 15 Indians who have won Grammy Awards such as A.R. Rahman, Zakir Hussain etc 2) Grammy Awards has introduced 3 new categories to recognise African Music, pop dance, and alternative jazz .
Ceremony	It is held annually in Los Angeles, California , typically in January or February.




Bharat Ratna for P.V. Narasimha Rao, Charan Singh, MS Swaminathan

Why in the News?

The government has recently announced that the Bharat Ratna will be conferred on former PM **P.V. Narasimha Rao** and **Chaudhary Charan Singh**, as well as Green Revolution pioneer **M.S. Swaminathan**.

This is in addition to the two recipients previously announced earlier this year – socialist leader [Karpooori Thakur](#) and former Deputy Prime Minister L.K. Advani.

Who were P.V. Narasimha Rao, Chaudhary Charan Singh, and M.S. Swaminathan?

		
Dr. M.S. SWAMINATHAN (7 August 1925 - 28 September 2023)	P.V. NARASIMHA RAO (28 June 1921 - 23 December 2004)	CHAUDHARY CHARAN SINGH (23 December 1902 - 29 May 1987)
<ul style="list-style-type: none"> ■ Agricultural scientist & agronomist ■ Born in Kumbakonam, Tamil Nadu ■ Played an instrumental role in Green Revolution and towards food self-sufficiency in India 	<ul style="list-style-type: none"> ■ Former Prime Minister of India (1991-96) ■ Born in Warangal, Telangana ■ Credited with steering the liberalisation of Indian Economy 	<ul style="list-style-type: none"> ■ Former Prime Minister of India (1979-80) ■ Born In Noorpur, Uttar Pradesh ■ Leader of the Lok Dal, credited as a leader of farmers in north India

Source- The Hindu

Note- PV Narshima Rao was the **first PM from southern India**.

About Bharat Ratna



Figure 26. Source- The Print

1) About- Bharat Ratna is the **highest civilian award of India**, instituted in 1954.

2) Domain of recognition- The award initially honored contributions in arts, literature, science, and public services. However, in December 2011, its **scope was expanded** to include **'any field of human endeavor'**.

3) First recipients- Scientists Chandrasekhara Venkata Raman, C. Rajagopalachari and Sarvapalli Radhakrishnan.

4) Non Indians- The award has also been given to non-Indians – Khan Abdul Ghaffar Khan and Nelson Mandela.

5) Recommendation for Bharat Ratna-The recommendations for Bharat Ratna are made by the Prime Minister to the President.

6) Bharat Ratna Award Limit:

a. The number of Bharat Ratna Awards is restricted to a **maximum of three in a particular year**.

b. **However, in 2024, five Bharat Ratna awards were announced**, one more than the four announced in 1999. This marks the highest number ever conferred in a single year.

7) Title guidelines:

a. According to **Article 18 (1) of the Constitution**, the Bharat Ratna **cannot be used as a prefix or suffix to the recipient's name**.

b. **However**, if the award holder wishes to indicate they have received the award, they may do so in their **biodata, letterhead, or visiting card**.

Acharya Shri Vidyasagarji Maharaj

Why in the News?

Recently, Acharya Shri Vidyasagarji Maharaj **attained samadhi** on February 18, 2024, at **Chandragiri Teerth** in Dongargarh, **Chhattisgarh**.

Who was Acharya Shri Vidyasagarji Maharaj?



Figure 27. Source- Wikipedia

1. About:

a. He was an **Indian Digambara Jain Acharya** (Digambar Jain Monk).

b. He was also known as **Sant Shiromani Acharya Shri 108 Vidyasagar Ji Maharaj**.

2. Birth- He was **born** in Sadalga, **Belgaum district of Karnataka** on October 10, 1946. His **childhood name was Vidhyadhar**.

3. Initiation of monk life- Vidyasagarji **became a Digambara monk in 1968** at the age of 22, **guided by Acharya Gyansagarji Maharaj**, who came from the lineage of Acharya Shantisagarji Maharaj, in Ajmer.

4. Transition- Although he was born in Karnataka and **embraced spiritual discipline in Rajasthan**, he **mainly resided in the Bundelkhand region**.

5. Teachings and Works:

a. He was widely **respected for his teachings on Jain philosophy, spirituality, and ethics**.

b. He is **credited with reviving educational and religious activities**.

c. He **wrote extensively in Sanskrit, Prakrit and Hindi**.

d. He **wrote haiku poems and the epic Hindi poem "Mukamati"**.

e. He was also known as "**Chote Baba**" in Jain community.

6. Views:

a. He strongly believed that **education is vital for a fair and enlightened society**.

b. He **advocated for knowledge as a tool to empower people**, helping them live meaningful lives and make valuable contributions.

c. He **stressed the significance of self-learning and self-awareness for genuine wisdom**. He

Factly Compilation for the Month of February 2024

encourages his followers to pursue lifelong learning and spiritual development.
d. He **strongly supported voting**, viewing it as a way to participate in democracy.

