

Factly Weekly

Compilation

2024

**For UPSC CSE Prelims
Exam**

**3rd Week
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Subject: Polity and Nation

Constitutional Provisions for Terms of State Assemblies and Lok Sabha

Why in the News?

Recently, the **Election Commission of India (ECI)** rescheduled the date of counting votes in two states, Sikkim and Arunachal Pradesh to June 2 from June 4. It was done after the realization that the term of both the Legislative Assemblies will expire on June 2.

What does the constitution say about terms of state Assemblies and Lok Sabha?

1. Under the Constitution, the terms of **both state Assemblies and Lok Sabha** is for **five years from the first sitting of the House**. It can only be dissolved earlier under the various mechanisms given in the constitution, but cannot be extended further.
2. **Term of state Assemblies** is defined under **Article 172(1) of the Indian Constitution**. It states: "Every Legislative Assembly of every State, unless sooner dissolved, shall continue for five years from the date appointed for its first meeting and no longer. The expiration of the said period of five years shall operate as a dissolution of the Assembly".
3. The term of the state assembly **may be extended by Parliament** when there is a proclamation of **Emergency**. However, the extension **cannot exceed one year** at a time and once the Proclamation has ceased to operate, the extension cannot be given **beyond a period of six months, in any case**.
4. **Terms of Lok Sabha is defined** under **Article 83(2)**. It states: "The House of the People, unless sooner dissolved, shall **continue for five years** from the date appointed for its first meeting and no longer. The expiration of the said period of five years shall operate as a dissolution of the House."
5. It means that the term of the Lok Sabha, unless dissolved, is **five years from the date appointed for its first meeting**.
6. However, while a proclamation of emergency is in operation, this period **may be extended by Parliament**. However, the extension **cannot exceed one year** at a time and once the Proclamation has ceased to operate, the extension cannot be given **beyond a period of six months, in any case**.

Cinematograph (Certification) Rules, 2024

Why in the News?

The Ministry of Information and Broadcasting has introduced new Cinematograph (Certification) Rules for 2024. These rules will replace the old rules from 1983.

These **rules are based on the Cinematograph (Amendment) Act, 2023**, which modified the Cinematograph Act, 1952.

About Cinematograph (Certification) Rules, 2024

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Figure 1. Source- Hindustan Times

Aim– These rules aim to **address film certification concerns**. They have been updated to fit online certification processes, improving transparency and efficiency.

Key aspects of the new rules:

1. Age-based certification:

a. The **UA category now offers sub-categories like UA 7+, UA 13+, and UA 16+** to aid parents in determining a film’s suitability for their

children.

b. The **older certification categories**—U (Universal), A (Adult Only), and S (for specific groups)—will **remain unchanged**.

c. These updates **align with the recommendations of the Shyam Benegal committee** from 2017.

2. Reduced certification time–The new rules streamline film certification by going fully digital, with a **provision for “priority screening” for urgent cases**. This would enhance transparency and impartiality.

3. Increased representation for Women– The new rules mandate **increased representation of women in the Central Board of Film Certification (CBFC) and Advisory Panels**. It is specified that **one-third of the Board members must be women**.

4. Accessibility for disabled– **Movies/feature films must incorporate accessibility features** for certification to ensure inclusivity for disabled individuals.

5. Perpetual validity of CBFC certificates– CBFC certificates will have Perpetual validity, removing the previous 10-year limit. **Recertification will only be needed for edited films aired on television**.

6. Compliance Timeline– **Films in more than one language must adhere to the rules within six months, while others have two years**. From January 1, 2025, films submitted to events like the National Film Awards and International Film Festival must also follow the guidelines.

About Cinematograph (Amendment) Act, 2023

1. The Cinematograph (Amendment) Act of 2023, which amended the Cinematograph Act of 1952, was passed in 2023.

2. It **introduces stricter penalties for piracy**. These include **imprisonment ranging from three months to three years**, as well as **finances ranging from three lakh rupees to 5% of the audited gross production cost**.

Subject: International Relations

Joint Logistics Over-the-Shore (JLOTS) Project

Why in the News?

The United States, as part of the Joint Logistics Over-the-Shore (JLOTS) project, is planning to construct a floating pier off the coast of Gaza to facilitate the delivery of humanitarian aid.

What is Joint Logistics Over-the-Shore (JLOTS)?

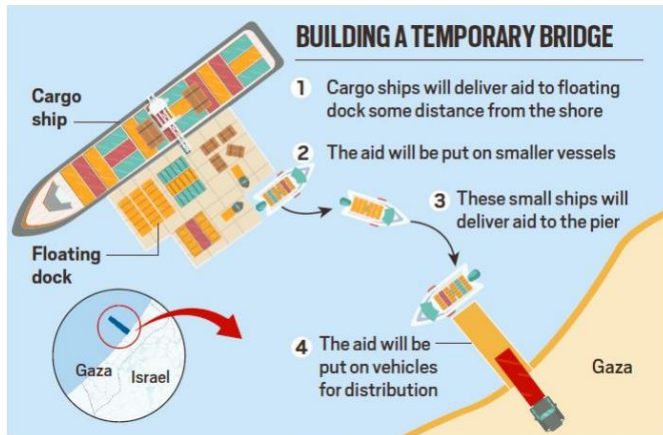


Figure 2. Source- The Indian Express

1. About- JLOTS is a military project by the US Department of Defense.

2. Objective- Its main objective is to **enhance the military's capacity for logistics operations** in regions **where there is a lack of adequate fixed port facilities**.

3. Operational features:

a. These operations involve teamwork among military branches. The navy transports and secures goods, while the army or other agencies handle tasks like building infrastructure and delivery.

b. JLOTS uses special equipment like floating

causeways and barges to move cargo between ships and shore, even in challenging areas.

4. Significance- This is especially **useful during humanitarian and disaster relief efforts** when quick delivery of aid is essential. The **US military has used JLOTS before in Kuwait, Somalia, Haiti, and Central America** for disaster relief missions.

Washington's "ironclad commitment" to Philippines

Why in the News?

U.S. Secretary of State Antony Blinken underscored Washington's "ironclad commitment" to help the Philippines.

This commitment was made in the backdrop of recent clashes between Chinese and Filipino coast guards in the disputed South China Sea.

About Washington's "ironclad commitment" under Mutual Defense Treaty



Figure 3. Source: The Washington Times

1. US's Ironclad Commitment to the Philippines is backed by the Mutual Defense Treaty (MDT). MDT was signed between the Republic of the Philippines and the United States of America, in 1951.

2) The MDT, puts the obligation on both sides to come to aid of each other's defense in case an external party attacks the Philippines or the US.

3) Therefore, mutual defense commitments of US under Article IV of the MDT would be invoked, in case there is any armed attack on Philippine. It includes attack on armed forces, aircraft and public vessels, including the

Coast Guard, anywhere in the South China Sea.

4) US's "ironclad commitment" also extends to **NATO Allies under Article 5 of the Washington Treaty**.

India as co-chair of Digital Innovation Board

Why in the news?

Dr Neeraj Mittal was unanimously elected as co-chair of the Digital Innovation Board of International Telecommunication Union. It is formed under the aegis of Innovation and Entrepreneurship Alliance for Digital Development.

About Innovation and Entrepreneurship Alliance for Digital Development



Figure 4. Source-PIB

Started by– International Telecommunication Union (ITU)

Objective– To respond to significant unmet needs of ITU Membership in the area of innovation, as articulated in the Kigali Action Plan adopted at the World Telecommunication Development Conference 2022 (WTDC-22) and the Outcomes of the ITU Plenipotentiary Conference 2022 (PP-22).

What are the main vehicles of the alliance?

The Alliance has three main vehicles: –

1) Digital Transformation Lab

2) **Network of Acceleration Centres**-ITU has selected 17 organizations from around the world to host Network of Acceleration Centres with the Global Innovation Centre at ITU Area Office and Innovation Centre, New Delhi. It aims to coordinate the efforts of Network Acceleration centres around the globe.

3) **Digital Innovation Board**-It is established to provide strategic guidance, expertise and advocacy regarding its mission of building critical local enablers and fostering innovation and entrepreneurship in digital development.

The Digital Innovation Board comprises Ministers and Vice Ministers of Telecom/ICT of 23 Member Countries of ITU spanning Asia, Europe, Africa, North and South America.

Subject: Indian Economy

Patent Rules 2024

Why in the News?

Recently, the Patent Rules, 2024 has been officially notified.

About Patents Rules, 2024

1. **About:** Patent Rules, 2024 marked a significant milestone in the journey towards **fostering innovation and economic development**.

a) These rules introduce several provisions aimed at **simplifying the process of obtaining and managing patents** to facilitate a conducive environment for inventors and creators.

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b) It is to accelerate economic development of the nation through science and technology to fulfil the **Viksit Bharat Sankalp**.

Note: A **patent** is a type of **intellectual property** that gives its owner the legal right to exclude others from making, using, or selling an invention for a limited period of time in exchange for publishing an enabling disclosure of the invention.

2. Salient Features: Some salient features of the revamped Rules are as follows:

a) **Introduction of Certificate of Inventorship:** A new '**Certificate of Inventorship**' has been introduced to acknowledge the contribution of inventors in the patented invention.

b) **Incorporation of Form 31:** The streamlined provision for **accessing Grace period benefits** under Section 31 is facilitated through the introduction of new forms, specifically Form 31.

c) **Reduction in Time frame:** The time limit for submitting foreign application filing details in Form 8 has been adjusted from six months post-filing to three months after the issuance of the first examination report.

d) **Decreased Time Restriction:** Due to rapid technological advancements, the timeframe for filing a request for examination has been reduced from 48 months to 31 months, counted from either the priority date of the application or the date of application filing, whichever comes earlier.

e) **Extension in Time Limit:** Provision to extend time limit and condone delay in filing has been further simplified and made more explicit to ease in practice.

The time for doing any act/proceeding may be extended any number of times up to six months by a request in prescribed manner.

f) **Reduction in Renewal Fees:** Renewal fee has been **reduced by 10% if paid in advance through electronic mode** for a period of at least 4 years.

g) **Reduced Frequency of filing patents:** Patent statements in Form 27 are now required every three fiscal years instead of annually. Additionally, a provision allowing a three-month delay in filing upon request has been added.

i) **Streamlining of Pre-Grant representation:** The process for filing and handling pre-grant representations through opposition under section 25(1) has been enhanced and clarified. This includes establishing methods for disposing of representations and setting filing fees.

Kisan Credit Card (KCC) Fisheries Scheme

Why in the News?

The Department of Fisheries has **included the Kisan Credit Card (KCC) Fisheries scheme on the JanSamarth Portal** to provide better access to credit for fishers, fish farmers, and stakeholders across the country.

JanSamarth Portal

1. It is an **innovative online platform** that directly links lenders with beneficiaries.
2. Citizens can access loans through 13 Central government schemes across **four loan categories**.

What is KCC Fisheries Scheme?

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- 1. About-** In 2018-19, the Kisan Credit Card (KCC) facility was extended to fishers and fish farmers to support their working capital needs.
- 2. Coverage-** The Scheme covers different categories of farmers, such as individuals, joint borrowers, Joint Liability Groups, and Self Help Groups.
- 3. Subsidy-** It provides an annual interest subsidy of 2%, along with an extra subsidy of 3% for timely repayment.

About Kisan Credit Cards (KCC) Scheme



Figure 5. Source- Financial Express

- 1. Launched-** The KCC scheme started in 1998 to offer timely credit to farmers for farming and related needs. It was initiated based on the recommendation of R.V. Gupta committee.
 - 2. Objective-** KCC aims to fulfill short-term credit needs for farming, post-harvest costs, marketing, consumption, farm asset maintenance, and agriculture-related investments.
 - 3. Implementing Entities:** Commercial Banks, Regional Rural Banks (RRBs), Small Finance Banks, and Cooperatives participate in executing the scheme.
- 4. Features:**
- a. KCC offers an ATM-enabled RuPay debit card, streamlined processes, and inherent cost escalation.
 - b. The government helps farmers by reducing interest rates and offering rewards for prompt loan repayment to make agricultural loans more affordable. Farmers must link their Aadhaar to avail themselves of interest rate reductions.
- 5. Expansion of the scheme-** The scheme expanded in 2004 to cover investment credit needs for farmers in various activities beyond farming. In 2018-19, it was extended to include fisheries and animal husbandry farmers.

Reverse Flipping

Why in the News?

Startups such as Pine Labs, Zepto, and Meesho are the latest new-age companies looking to move headquarters to India.

About reverse flipping

- 1. About:** Reverse flipping refers to the phenomenon where international startups relocate their headquarters to India and subsequently go public on Indian stock exchanges.
- 2. Driving factors:** It is driven by various factors including India's thriving economy, expansive market potential, robust venture capital ecosystem, favourable tax frameworks, strong intellectual property protection, educated workforce, and supportive governmental policies.

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3. **Reason:** Companies opt for reverse flipping due to the ease of accessing capital from private equity and venture capital firms, regulatory changes regarding round-tripping, and the increasing maturity of India's capital markets.

4. **Measures to accelerate the process:** The **Economic Survey 2022-23** suggested measures to expedite the process, such as simplifying procedures for tax incentives, taxation of Employee Stock Ownership Plans (ESOPs), capital movements, reducing tax complexities, among others.

About Flipping

1. **About:** Flipping is when an Indian company transforms into a 100% subsidiary of a foreign entity, after it has moved its headquarters overseas, including a transfer of its intellectual property (IP) and others.

2. Impact on Indian economy:

a. **Brain drain of entrepreneurial talent from India:** Young, skilled, and innovative founders relocate to overseas jurisdictions resulting in **loss of human capital and stalling of innovation and technological advancements within the country.**

b. **It results in value creation in foreign jurisdictions rather than in India:** Home-grown innovative ideas and disruptive technologies **contribute to the startup ecosystem and economic growth** of other countries.

c. It also results in the **loss of Intellectual Property and Tax Revenue** for the country

Price stabilization fund

Why in the News?

Recently, the government has approved inclusion of wheat and rice under its price stabilization fund (PSF).

About Price stabilization fund

1. **About:** The Price Stabilization Fund (PSF) was **set up in 2014-15** under the **Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW)**. The PSF scheme was transferred to the Department of Consumer Affairs (DOCA) in 2016.

2. **Regulation of the fund:** The fund management is centrally managed by a **Price Stabilisation Fund Management Committee (PSFMC)** that approves all State Government's and Central Agencies' proposals.

The **Small Farmers Agribusiness Consortium (SFAC)** maintains the PSF as a **central corpus fund**.

3. **Objective:** The fund is aimed at **increasing or decreasing prices of selected commodities** by distributing or procuring the commodity to stabilize the price in a range. The fund is usually used for activities aimed at bringing down/up the high/low prices.

4. **Function:** a. It helps to **regulate the price volatility of important agri-horticultural commodities** like onion, potatoes and pulses were also added subsequently.

b. The PSF is utilized for granting interest-free advance of working capital to Central Agencies, State/UT Governments/Agencies to undertake market intervention operations.

c. Apart from domestic procurement from farmers/wholesale mandis, import may also be undertaken with support from the Fund.

d. Under the PSF scheme, interest-free loans are extended to State Governments/Union Territories (UTs) and Central Agencies to cover their working capital and related expenses incurred in the procurement and distribution of these commodities.

Subject: Science & Technology

Hemoglobin A1C (HbA1C) Test for Diabetes

Why in the News?

This article discusses the Hemoglobin A1C (HbA1C) Test, which is used to diagnose diabetes. According to a nationwide study published in 2023, **India has an estimated 10.13 crore people with diabetes and another 13.6 crore people who are pre-diabetic.**

What is Hemoglobin A1C (HbA1C) Test?



Figure 6. Source – The Hindu

1. About:

- a. It is one of the **most commonly-used tests to diagnose pre-diabetes and diabetes (both type 1 and type 2)** and to help manage diabetes.
- b. It is **also known as the glycated haemoglobin or glycosylated haemoglobin test.**

2. Significance– This blood test is vital for assessing the effectiveness of your diabetes management.

Note – Hemoglobin, a protein found in red blood cells, carries oxygen from your lungs to the rest of your body.

How does the test work?

1. Sugar from the food, that the individual eats, enters the bloodstream and **binds to the hemoglobin** in red blood cells.
2. Everyone has some sugar attached to their hemoglobin, but **individuals with pre-diabetes and diabetes tend to have higher levels.**
3. The HbA1C test **measures the percentage of hemoglobin in red blood cells that is coated with sugar.**

Advantage over other traditional test

1. Fasting and post-meal blood sugar tests measure sugar levels at specific times, whereas the **HbA1C test reflects average glucose levels over a period of two to three months.**
2. Unlike traditional tests, **HbA1C isn't influenced by recent meals**, making it more dependable and usable regardless of meal timing.

SIMA: Google Deepmind's new AI

Why in the News?

Google DeepMind introduced its newest **AI gaming agent, SIMA**. It can understand and execute tasks in video game environments **based on natural language instructions**.

What is SIMA?

1. Full form– Scalable Instructable Multiworld Agent (SIMA)

2. About– SIMA is an AI agent that can process data and take actions autonomously. It can be referred to as a **generalist AI agent** capable of performing various tasks.

3. Features:

- a.** It is **like having a virtual friend, who can understand and follow instructions** in any virtual setting, whether it's exploring dungeons or constructing castles.
- b.** This virtual buddy can complete tasks and overcome challenges given to it.
- c.** By processing human language, it **"understands" human commands**, so when anyone asks it to build a castle or locate a treasure chest, it knows precisely what you mean.
- d.** One notable trait of this AI Agent is its **ability to learn and adjust**. SIMA learns from its experience and interactions with users.

4. Training – Google partnered with game developers to train SIMA in multiple video games.

5. Significance– This research **marks the first time** an agent has demonstrated the **ability to understand various gaming environments** and perform tasks within them using natural-language instructions, similar to a human.

What is the difference between AI agent and AI Model?

Google DeepMind refers to SIMA as an AI Agent, which differs from AI models such as OpenAI's ChatGPT or Google Gemini.

Aspect	AI Model	AI agent
Actionability	AI models undergo training on extensive datasets and have limitations in independent operation .	An AI Agent has the ability to process data and take actions autonomously .
Data input	AI models process input data and generate outputs using predefined algorithms and learned patterns .	They might use AI models to help make decisions, but they also add extra layers of logic, learning, or planning to handle complex situations .
Examples	OpenAI's ChatGPT, Google Gemini	Siri, Alexa, and Google Assistant

Subject: Environment

Captive Elephant Rules 2024

Why in the News?

Recently, the Centre has notified a set of rules called the Captive Elephant (Transfer or Transport) Rules, 2024.

Captive Elephant (Transfer or Transport) Rules, 2024

1. Captive Elephant (Transfer or Transport) Rules, 2024 aims to **liberalise the conditions** under which elephants may be transferred within or between States.

2. **Circumstances under which captive elephants can be transferred-** The rule highlight certain circumstances under which captive elephant can be transferred:

- a) when an owner is **no longer in a position to maintain the elephant**
- b) when the elephant will likely have a better upkeep than in the present circumstances
- c) when a **State's Chief Wildlife Warden "deems it fit and proper"** in the circumstances of the case for better upkeep of the elephant.

3. Pre-requisite for transfer:

- a) Before a transfer within the State, an elephant's health has to be **ratified by a veterinarian**.
- b) The **Deputy Conservator of Forests** must establish that the animal's current habitat and prospective habitat are suitable.
- c) The **Chief Wildlife Warden** (on receipt of such documents) may reject or approve the transfer.

Note: If the transfer involves moving the elephant outside a State, similar conditions apply.

d) Before a transfer is effected, the **"genetic profile"** of the elephant has to be registered with the Ministry of Environment, Forest and Climate Change.

e) A **mahout and an elephant assistant** should accompany the animal, a health certificate, a quarantine period before the transfer and more are also part of the rules.

4. **Earlier provision:** Until August 2022, the Wildlife Protection Act explicitly prohibited the trade in wildlife including both wild and captive elephants. Amendments to the Act in 2022, brought in an exemption that for the first time allowed captive elephants to be moved.

5. A Parliamentary Committee had recommended the deletion of this exemption clause for elephants. However, the final version of the amended Act retains the clause.

Bugun Liocichla Bird

Why in the News?

The Buguns, a major tribe living near **Eaglenest Wildlife Sanctuary** in Arunachal Pradesh, have generously donated 1,470 hectares of land to conserve the Bugun Liocichla bird.

What is Bugun Liocichla?



Source- India Today NE

Aspect	Details
About	Bugun Liocichla (<i>Liocichla bugunorum</i>) is a bird species.
Official recognition	It was first spotted in 1995 in Arunachal Pradesh. However, the bird was officially documented in 2006 after astrophysicist Ramana Athreya discovered it in Arunachal Pradesh's Eaglenest Wildlife Sanctuary .
Conservation Status	IUCN: Critically Endangered
Habitat	It is primarily observed in specific areas within Eaglenest Wildlife Sanctuary and Braiduah village under the Singchung subdivision of Arunachal Pradesh. There are only 14-20 of these birds in the state.
Characteristics	<ol style="list-style-type: none"> 1. This bird is a small babbler, measuring just 20 cm, with olive-grey feathers and a black cap. 2. It is exclusively found in the Eaglenest Wildlife Sanctuary and nowhere else in the world.
Conservation efforts	The Arunachal Pradesh government officially declared Braiduah Community Reserve protected under the Wildlife Protection Act, 1972 . The reserve is situated adjacent to the Eaglenest Wildlife Sanctuary.
Significance	It was the first bird discovered since India's Independence .

About Bugun Tribe



Figure 7. Source- voiceofruralindia.org

1. Origin in India – The Buguns migrated from Tibet through East Kameng, Arunachal Pradesh.

2. Livelihood & Habitat:

- a. Their daily lives are **deeply connected to their environment**.
- b. Similar to other Indo-Mongoloid tribes in Arunachal Pradesh, the Buguns, also **construct their homes using bamboo**.

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c. The Buguns are known for their hard work in farming and their **skill in extracting oil from a local wood species called Chiblem**, which is found in the forests.

3. Lifestyle:

- a. They have separate borders with neighboring tribes and **speak a distinct language called Khowa**.
 - b. They have their own **decision-making body called Nimiang**, which oversees the community's affairs.
 - c. Buguns tend to **practice endogamy** by marrying individuals within their own community.
4. **Festival**- The Bugun people celebrate their **annual festival** known as "Pham-Kho."

World Air Quality Report 2023

Why in the News?

According to the World Air Quality Report 2023, Delhi was identified as the city with the poorest air quality.

About World Air Quality Report 2023

1. **Published by**- Swiss organisation IQAir.
2. **Data collection** - The data encompassed information from 7,812 sites across **134 countries**, regions, and territories.

Key findings

1. **India ranked third in terms of air quality**, with an average annual concentration of particulate matter 2.5 (PM2.5) at 54.4 micrograms per cubic meter.
2. India ranked lower than only two of its neighboring countries, Bangladesh and Pakistan.
3. **Bangladesh had the highest pollution level globally**, with an average PM2.5 concentration of 79.9 micrograms per cubic meter, while **Pakistan ranked second** with 73.7.
4. It also named **Delhi as the world's most polluted capital city** for the **fourth year in a row**.
5. **Begusarai in Bihar** was identified as the **most polluted metropolitan area globally**.
6. **India has ten of the top 11 most polluted cities globally**, with the **remaining one being Lahore in Pakistan**.
7. **96 percent of India's population faces PM2.5 levels** that exceed the WHO annual guideline by more than seven times.

Genetic rescue in Ranthambore National Park

Why in the News?

Recently, during a study, genetic rescue was suggested as a strategy to preserve the tiger population in Ranthambore National Park.

What is Genetic rescue?

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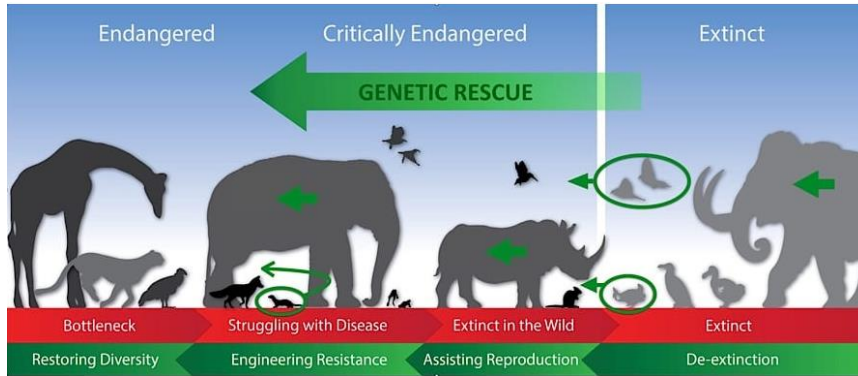


Figure 8. Source- revive & restore

1. About:

a. Genetic rescue is the **process of increasing population growth**. This is done by **introducing new genetic diversity through the migration of individuals into another small population**, a process known as gene flow.

b. In practice, wildlife

managers take individuals from a larger, healthier population

and bring them to a smaller one to introduce new variation and aid in population growth.

2. Aim- This strategy aims to reduce genetic problems, lower extinction risks, and **improve the survival of endangered species and populations**.

3. Applications- It is commonly **used in conservation biology to counteract inbreeding depression**. This occurs when **closely related individuals mate within a population**, resulting in reduced success in reproduction and offspring viability.

4. Impacts:

a. Genetic rescue **can have positive or negative effects**, influenced by factors such as the **extent and duration of gene flow**, as well as **genetic and non-genetic factors** that impact population dynamics.

b. Moving animals around can pose risks, which is why it's usually considered a final option.

About Ranthambore National Park

Aspect	Details
Location	<ol style="list-style-type: none"> 1. It is located in Sawai Madhopur district of Rajasthan. 2. It is located at the junction of the Aravali and Vindhya hill ranges.
History	<ol style="list-style-type: none"> 1. Ranthambore National Park started as Sawai Madhopur Game Sanctuary in 1955 by the Indian Government. 2. It became a Project Tiger reserve in 1973. 3. Ranthambore was designated as a national park in 1980.
River	The park is bounded to the north by the Banas River and to the south by the Chambal River .
Connected wildlife sanctuary	Kailadevi Wildlife Sanctuary and Sawai Mansingh Wildlife Sanctuary are connected to the core of Ranthambore NP by narrow corridors, forming part of the Tiger Reserve.
Vegetation	Mixed Deciduous type
Flora	<ol style="list-style-type: none"> 1. The most prevalent plant species in Ranthambore National Park is the "Dhok," scientifically known as <i>Anogeissus pendula</i>. 2. Other plant species include Banyan (<i>Ficus bengalensis</i>), Pipal (<i>Ficus religiosa</i>) and Neem (<i>Azadirachta indica</i>), Babul (<i>Accasia nilotica</i>), Gum (<i>Sterculia urens</i>) etc.
Fauna	<ol style="list-style-type: none"> 1. Tigers, leopards, striped hyenas, common or hanuman langurs, rhesus macaques, jackals, jungle cats, caracals, blackbuck, etc.

2. It is also home to more than 270 **bird species**, such as the **crested serpent eagle**, **painted francolin**, and **Indian paradise flycatcher**.

International Partnership for Hydrogen and Fuel Cells in the Economy (IPHE)

Why in the News?

Recently, the 41st Steering Committee Meeting of the International Partnership for Hydrogen and Fuel Cells in the Economy (IPHE) was hosted by India in New Delhi.

About International Partnership for Hydrogen and Fuel Cells in the Economy (IPHE)



Figure 9. Source: PIB

1. About: The International Partnership for Hydrogen and Fuel Cells in the Economy (IPHE) is an **international inter-governmental partnership**. It was established in **2003**.

2. Member: It consists of **23 member countries and the European Commission**. The member countries include major economies such as the United States, Japan, Germany, China, South Korea, Canada, and India.

3. Mission: The IPHE's mission is **to facilitate and accelerate the transition to clean and efficient energy and mobility systems** using

hydrogen and fuel cell technologies across applications and sectors.

4. IPHE serves as a mechanism **to organize and implement effective, efficient, and focused international research, development, demonstration, and commercial utilization activities** related to hydrogen and fuel cell technologies.

5. It also provides a forum for **sharing information on policies and technology status**, as well as on initiatives, codes, and standards to accelerate the cost-effective transition to the use of fuel cells and hydrogen in the economy.

Strict rule on Bio plastic

Why in the news?

The Environment Ministry has recently introduced rules that make it harder for makers of disposable plastic ware to label such products as 'biodegradable'. It has introduced a stipulation that makers of disposable plastic ware must not leave any microplastics behind.

What are the broad kinds of technological fixes to address India's plastic waste pollution?



Source-iStock

Biodegradable plastic-It involves plastic goods being treated before they are sold.

Compostable plastics-They degrade, but require industrial or large municipal waste management facilities to do so.

What are the recent changes?

As per new amendments to India's Plastic Waste Management (Amendment) Rules, 2024, biodegradable plastics will be defined as materials which are not only capable of degradation by biological processes in specific environment such as soil, landfill but also as materials that do not leave any microplastics.

What are the issues with recent changes?

- 1) The rules do not specify which chemical tests can be used to establish the absence of microplastics.
- 2) The rules do not specify that up to what extent microplastics must be reduced in a sample in order to consider them eliminated.
- 3) Central Pollution Control Board (CPCB) has refused to provide makers of disposable plastic ware with a 'provisional certificate' to license their products as biodegradable.

Subject: Art & Culture

Pandavula Gutta- Geo-heritage site

Why in the News?

Pandavula Gutta has recently gained official recognition as the exclusive Geo-heritage site in Telangana.

What is Pandavula Gutta?



Figure 10. Source- The Hindu

1. About- It is an **ancient geological marvel** older than the Himalayas.

2. Location- It is located in Jayashankar Bhupalpally district in **Telangana**.

3. Discovery- The discovery of this site dates back to **1990**.

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4. Features:

- a. The site is rich in **paintings, rock shelters, and evidence of habitation**, spanning from the Mesolithic to medieval periods.
- b. The **paintings exhibit geometric designs and impressions using green, red, yellow, and white pigments**.
- c. The rock art paintings show animals such as bison, antelope, tiger, and leopard. They also **feature shapes like the swastika symbol**, circles, squares, as well as weapons like bows, arrows, swords, and lances.

What are Geo-heritage sites?

1. About- Geo-heritage encompasses **geological features that hold either intrinsic or cultural importance**. It provides **valuable insights into the Earth's evolution or history** for earth science or educational purposes.

2. Designated by- **Geological Survey of India (GSI)**

3. Protection- India, a member of the UNESCO Convention concerning the **Protection of the World Cultural and Natural Heritage**, safeguards these sites with appropriate laws, following global standards.

Subject: Geography & Places in news

Shipra River

Why in the News?

Recently, a performance audit was conducted by the Comptroller and Auditor General of India (CAG) on the degradation of the Shipra River.

About Shipra River

- 1. Location:** The Shipra River (also known as the Kshipra) is a **river in Madhya Pradesh**.
- 2. Type:** It is a **perennial river** and is considered as sacred as the Ganga River by the Hindus.
- 3. Origin:**
 - a) The Shipra River originates in the **Vindhya Range** from a hill called **Kakri-Tekdi**, situated approximately **11 kilometers north of Ujjain** in **Madhya Pradesh**.
 - b) This perennial river flows across the **Malwa Plateau** and eventually joins the **Chambal River**.
 - c) **Kahn and Gambhir** are its major tributaries.
- 4. Religious Significance:**
 - a) According to **ancient Hindu texts** (the **Puranas**), the Shipra River is believed to have sprung from the **heart of Varaha**, an incarnation of **Lord Vishnu** in the form of a boar.
 - b) Along the banks of the Shipra lies the **ashram (hermitage) of Sage Sandipani**, where **Lord Krishna**, the eighth incarnation of Lord Vishnu, received his education.
 - c) The holy city of **Ujjain**, situated on the right bank of the Shipra, hosts the famous **Kumbha Mela** (Sinhastha fair). Pilgrims gather on the city's elaborate riverside ghats to celebrate the **river goddess Kshipra**.

d) The Shipra River also finds mention in **Buddhist and Jain texts**.

Gulf of Tonkin

Why in the News?

Vietnam urges respect for international law after **China sets a baseline in the Gulf of Tonkin**. This action sparks concerns due to overlapping claims in the South China Sea. **However, historically, both countries have maintained friendly relations in the Gulf of Tonkin.**

Baselines

Baselines are **imaginary lines** along the coast used **to measure the extent of a country's territorial sea and other maritime zones**, like territorial waters and **exclusive economic zones**.

About Gulf of Tonkin



Figure 11. Source- ResearchGate

1. Location- It is a shallow, crescent-shaped body of water **located in the northwest part of the South China Sea**. It is known as “Beibu Gulf” in Chinese and “Bac Bo Gulf” in Vietnamese.

2. Borders- The gulf is bordered by the **northern coast of Vietnam to the west and northwest**, **China's Guangxi Zhuang Autonomous Region to the north**, and the **Leizhou Peninsula and Hainan Island to the east**.

3. Rivers that drain into it- The Gulf of Tonkin receives water from multiple rivers, primarily the **Red River (referred to as the Yuan River in Chinese)**, along with several smaller rivers.

4. Connection- It connects to the South China Sea through its southern mouth and the **Hainan Strait**

(Qiongzhou Strait) to the northeast.

5. Major Ports- **In Northern Vietnam**, the primary ports along the gulf are **Haiphong and Ben Thuy**. **In China**, the major port is **Beihai (Pakhoi)**.

6. Historical incident- The **Gulf of Tonkin incident in 1964** increased U.S. involvement in the Vietnam War.

Barberton Greenstone Belt

Why in the News?

Recently, scientists discovered evidence of some of the **earliest recorded earthquakes** in the Barberton Greenstone Belt.

About Barberton Greenstone Belt



Figure 12. Source- Wikipedia

Location– It is located on the eastern boundary of the Kaapvaal Craton in **South Africa**.

Significance

1. It is **renowned for its gold deposits** and for its **komatiites, an uncommon type of ultramafic volcanic rock** named after the Komati River that traverses the belt.
2. The Barberton Greenstone Belt in the Eswatini–Barberton areas **contains some of the oldest exposed rocks on Earth**, dating back over 3.6 billion years.
3. These rocks also preserve some of the earliest evidence of life on Earth, **second only to the Isua Greenstone Belt in Western Greenland**.
4. The **Makhonjwa Mountains constitute 40% of the Barberton belt**.

Note– The **Barberton Greenstone Belt's outcrops were added to UNESCO's World Heritage Sites list in 2008** under the name 'Barberton Makhonjwa Mountains'.

What are ultramafic rocks?



Figure 13. Source- Wikipedia

1. **About**– Ultramafic (or ultrabasic) rocks are **dark-colored igneous and meta-igneous rocks**. Ultramafic rocks are **predominantly found in orogenic belts**, where mountains are formed.
2. **Composition**– They mostly consist of over 90% mafic minerals, with **high levels of magnesium oxide (more than 18% MgO) and iron oxide (FeO)**. They have **low silica (less than 45%) and potassium content**.
3. **Significance**– It is believed that the **Earth's mantle is made up of ultramafic rocks**.

Subject: Defence Exercise

Exercise Tiger Triumph – 24

Why in the News?

India and the United States will conduct a bilateral tri-Service Humanitarian Assistance and Disaster Relief (HADR) Exercise called Tiger Triumph – 24. It will take place on the Eastern Seaboard from March 18 to March 31, 2024.

Exercise Tiger Triumph

About- It is the first tri-service military exercise between India and USA. India has previously conducted tri-service exercises only with Russia.

First edition- 2019

About Exercise Tiger Triumph-24

- 1. Aim-** The exercise aims to improve cooperation between the forces of both countries in conducting HADR operations and to refine Standard Operating Procedures (SOPs) for smoother coordination.
- 2. Phases of the exercise-** The exercise will be conducted in two phases- Harbour Phase and Sea phase
 - a. Harbour Phase-** It will be carried out at Visakhapatnam. Personnel from both navies will engage in Training Visits, Subject Matter Expert Exchanges, Sports Events, and Social interactions during this time.
 - b. Sea Phase-** It will be carried out at Kakinada district of Andhra Pradesh. After the Harbour Phase, the ships, carrying troops, will sail for the Sea Phase and conduct Maritime, Amphibious, and HADR operations based on given scenarios.

Subject: Miscellaneous

Usha Mehta-Indian Freedom Fighter

Why in the News?

The film “Ae Watan Mere Watan,” centered on the life of Indian freedom fighter Usha Mehta, has recently been released.

About Usha Mehta

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Source- India Today

- 1. Birth-** Usha Mehta was born in 1920 in the village of Saras, near Surat in Gujarat.
- 2. Mahatma Gandhi follower-** She followed Gandhi's principles and was often called Ushaben.
- 3. Role in Indian Freedom struggle:**
 - a. When she was eight years old in 1928, she joined a protest march against the Simon Commission.
 - b. On August 14, 1942, she and her associates set up the Secret Congress Radio during the Quit India Movement, which began broadcasting on August 27.
- 4. Awarded Padma Vibhushan-** In 1998, the Government of India honored her with the Padma Vibhushan, the second highest civilian award in the country.

Setting up an underground station

Background- When the World War II began in 1939, the British suspended all amateur radio licenses across their Empire. Operators were required to surrender all equipment to the authorities, facing severe punishment if they didn't comply.

- 1. Congress radio station creation-** Congress Radio was created during the Quit India Movement to spread the message of Independence, making it one of India's earliest radio networks. It was used by Gandhiji to promote Independence.
- 2. Organisers-** Usha Mehta, along with Babubhai Khakar, Vithalbhai Jhaveri, and Chandrakant Jhaveri, played vital roles in organizing Congress Radio.
- 3. End to Congress Radio-** To evade detection by the British, they regularly changed transmission locations. The operation was exposed when Nariman Printer was captured; he revealed the location of Congress Radio in exchange for immunity.
- 4. Congress Radio case:**
 - a. The trial of the five accused— Usha Mehta, Babubhai Khakar, Vithalbhai Jhaveri, Chandrakant Jhaveri, and Nanak Gainchand Motwane (who sold essential equipment to the team)— stirred considerable excitement in Bombay.
 - b. Vithalbhai and Motwane were cleared of charges, while Mehta, Babubhai, and Chandrakant received harsh sentences.
 - c. Usha Mehta was freed from Pune's Yerawada Jail in March 1946 and is celebrated in nationalist media as "Radio-ben".