Tiger

TIGER

Royal Bengal Tiger (Panthera Tigris) is the National animal of India.

Subspecies of Tiger

✱ **The continental** *(Panthera tigris tigris)*
✱ **The Sunda** *(Panthera tigris sondaica)*

Habitat

Tropical rainforests, evergreen forests, temperate forests, mangrove swamps, grasslands, and savannas

Countries Where Tiger Population Is Found

» Found only in **13 Tiger Range countries-** India, Nepal, Bhutan, Bangladesh, Myanmar, Russia, China, Thailand, Malaysia, Indonesia, Cambodia, Laos, and Vietnam
   ◆ As per the latest report by IUCN, tiger has gone extinct in Cambodia, Laos, and Vietnam

Protection Status

» **IUCN Red List:** Endangered
» **CITES:** Appendix I
» **WPA 1972:** Schedule I

Threats

» Habitat loss
» Poaching and illegal trade
» Human-Wildlife conflict

Conservation Efforts

» **International Big Cats Alliance (IBCA):** For conservation of seven big cats namely Tiger, Lion, Leopard, Snow Leopard, Cheetah, Jaguar and Puma (launched by India)
» **Tx2 campaign:** Launched by WWF; stands for 'Tiger times 2' signaling the goal to double the tiger population by 2022
» **National Tiger Conservation authority (NTCA):** Constituted under the WPA, 1972
» **Project Tiger:** Launched in 1973
» **Tiger Census:** Every 4 years

Tigers In India

» India has the **largest** population
   ◆ As of 2022, India has 3167 tigers
   ◆ Largest population has been found in Central Indian Highlands & Eastern Ghats Landscape
» **Tiger Reserves:** India now has 53 tiger reserves
   ◆ **Ranipur in UP** is the latest
   ◆ **Nagarjun Sagar** (Andhra Pradesh) **is the largest** while Orang (Assam) **is the smallest** (Core area)

Drishti IAS

India Approves Construction of LIGO

Why in News?

Recently, the government approved the construction of the **Laser Interferometer Gravitational-Wave Observatory (LIGO) project** after seven years of in-principle approval.

- It will be built by the [Department of Atomic Energy](#) **and the Department of Science and Technology with the U.S. National Science Foundation** and several national and international research institutions.

What is LIGO-India Project?

- **About:**
    - The project **aims to detect** [gravitational waves](#) from the universe.
    - The Indian LIGO would have **two perpendicularly placed 4-km long vacuum chambers,** that constitute the most sensitive interferometers in the world.
    - It is expected to begin scientific runs **from 2030.**
- **Location:**
    - It will be located in the **Hingoli district of Maharashtra**, about 450 km east of Mumbai.
- **Purpose and Significance:**
    - It **will be the fifth node** of the planned network and will bring India into a **prestigious international scientific experiment.**
    - It will make India a unique platform that brings together the frontiers of science and technology of the **quantum and the cosmos.**
- **Benefits of LIGO-India:**
    - The LIGO-India project would have **several spin-off benefits** to Indian science, apart from making India an **integral part of** one of the **most prestigious international scientific experiments.**
    - The observatory is expected to enable dramatic returns in astronomy and **astrophysics,** as well as leapfrog Indian science and **technology in cutting-edge** frontiers of great national relevance.
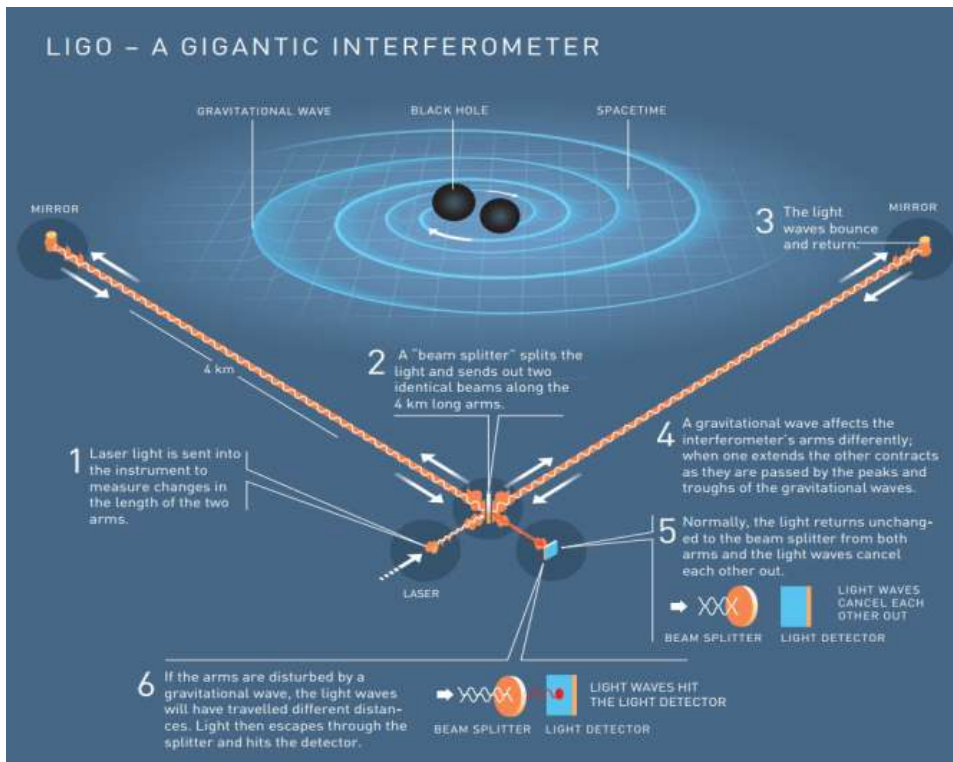
What are Gravitational Waves?

- Gravitational waves were first postulated (1916) in **Albert Einstein's General Theory of Relativity,** which explains how gravity works.
- These waves are produced by the movement of massive celestial bodies, such as black holes or neutron stars, and are the ripples in spacetime that propagate outward.

What is LIGO?

- **About:** LIGO is an **international network of laboratories** that **detect gravitational waves.**
    - LIGOs are designed **to measure changes in distance that are several orders of magnitude smaller than the length of the proton.** Such high precision Instruments

are needed because of the extremely low strength of gravitational waves that make their detection very difficult.

LIGO – A GIGANTIC INTERFEROMETER

- **First Detection of Gravitational Waves:**
  - The LIGO in the US first detected **gravitational waves in 2015,** which led to a **Nobel Prize in Physics in 2017.**
    - These gravitational waves were produced **by the merger of two black holes, which were about 29 and 36 times the mass of the Sun,** 1.3 billion years ago.
    - Black hole mergers are **the source of some of the strongest gravitational waves.**
- **Operational LIGO:**
  - Besides **the United States (in Hanford and Livingston)**, such gravitational wave observatories are currently **operational in Italy (Virgo) and Japan (Kagra).**
    - **To detect gravitational waves,** four comparable detectors need to be operating simultaneously around the globe.
- **Working Mechanism:**
  - LIGO consists of two 4-km-long vacuum chambers, set up at **right angles to each other, with mirrors at the end.**
  - When light rays are released simultaneously in both chambers, they should return at the same time.
  - However, **if a gravitational wave arrives, one chamber gets elongated while the other gets squished, causing a phase difference in the returning light rays.**
    - Detecting this phase difference confirms the presence of a gravitational wave.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. Recently, scientists observed the merger of giant 'blackholes' billions of light-years away from the Earth. What is the significance of this observation? (2019)

(a) 'Higgs boson particles' were detected.
(b) 'Gravitational waves' were detected.
(c) Possibility of intergalactic space travel through 'wormhole' was confirmed.
(d) It enabled the scientists to understand 'singularity'

Ans: (b)

Exp:

- Every few minutes a pair of black holes smash into each other. These cataclysms release ripples in the fabric of space time known as gravitational waves.
- Gravitational waves are 'ripples' in space-time caused by some of the most violent and energetic processes in the Universe.
- Albert Einstein predicted the existence of gravitational waves in 1916 in his General Theory of Relativity.
- The strongest gravitational waves are produced by catastrophic events such as colliding black holes, the collapse of supernovae, coalescing neutron stars or white dwarf stars, etc.
- Scientists have yet again detected gravitational waves produced by the merger of two light black holes about a billion light-years away from the Earth.
- It was recorded by Laser Interferometer Gravitational-Wave Observatory (LIGO).
- **Therefore, option (b) is the correct answer.**

Source: IE

Medical Device and Malware

For Prelims: Medical Device and Malware, Ransomware, Cyberattacks, Trojan Horses, Cyber Surakshit Bharat, Cyber Swachhta Kendra.

For Mains: Implications of malware attacks on medical devices and the measures.

Why in the News?

Recently, some experts have warned that Common medical devices such as oximeters, hearing aids, glucometers, and pacemakers can be turned into **Ransomware.**

- Industry experts are now seeking urgent Central government intervention to recognize this threat and immediately put in place measures to plug any possible drain.
- The warning comes close on the heels of **the ransomware attacks suffered by India's top tertiary care hospitals,** leading to the siege of millions of medical records and vast amounts of health data at Delhi's AIIMS, Safdarjung Hospital etc.

What are the Concerns?

- **Data Breaches:**
    - The increasing use of medical technology devices and the lack of adequate cyber protection for these devices have **raised concerns about data breaches and cyberattacks in the healthcare industry.**
    - Such devices contain software as medical devices (SaMD) and software in medical devices (SiMD), and are typically connected to the internet, mobile phones, servers, and the cloud and thus vulnerable to attacks.
    - **Sun Pharma,** the fourth-largest generic pharmaceutical company in the world and an Indian multinational corporation, **was targeted in the recent cyberattacks along with the** Indian Council of Medical Research (ICMR).
- **Vulnerable Population:**

- India is among **the world's top 20 markets for medical devices**, with the medical devices sector projected to reach USD 50 billion by 2025. However, the rapid economic growth, rising middle-class incomes, and increased market penetration of medical devices have left the **population vulnerable to cyber threats.**
- **Inadequate Systems:**
  - Furthermore, the **Indian healthcare industry lacks a centralized data collection mechanism,** which makes it challenging to determine the exact cost of data corruption.
  - Despite this, it is evident that data has become the **new oil and is seeing a significant threat from cyberattacks.**

How can we Address Such Cyber Threats?

- **Consultation with the Experts:** The government should consult with industry experts to identify the challenges that could pose a risk to national security.
- **Employee Training:** Employees should be trained in how to recognize and avoid phishing emails, which are commonly used to initiate ransomware attacks.
- Data protection is not a rocketing science, but requires legal and technical artisanship, the **allocation of adequate resources and the training of all professionals** involved in the processing of personal data.
- **Regular Software Updates:** Regular software updates can help address vulnerabilities that hackers might exploit.
- **Access Control:** Limiting access to medical devices to only authorized personnel can prevent unauthorized individuals from accessing the devices and infecting them with malware.
- **Encryption:** Encryption can be used to protect the data on medical devices from unauthorized access.
- **Network Segmentation:** Segmenting the network can help **prevent the spread of malware from one device to another.**

What are the Major Types of Cyber Threats?

- **Ransomware:** This type of malware **hijacks computer data and then demands payment (usually in bitcoins)** in order to restore it.
- **Trojan Horses:** A Trojan horse attack uses a malicious program that is hidden inside a seemingly legitimate one.
  - When the user executes the **presumably innocent program,** the malware inside the Trojan can be used to open a backdoor into the system through which hackers can penetrate the computer or network.
- **Clickjacking:** Act of tempting internet users to click links **containing malicious software or unknowingly share private information** on social media sites.
- Denial of Service (DOS) Attack: The deliberate act of overloading a particular service like website from multiple computers and routes with the aim of disrupting that service.
- **Man in Middle Attack:** In this kind of attack, the messages between two parties are intercepted during transit.
- **Crypto Jacking:** The term Crypto jacking is closely **related to cryptocurrency.** Crypto jacking takes place when attackers access someone else's computer for mining cryptocurrency.
- **Zero Day Vulnerability:** A zero-day vulnerability is a flaw in the machine/network's operating system or application software which has not been fixed by the developer and can be exploited by a hacker who is aware of it.
- **Bluebugging**: It is a form of Bluetooth hacking in which an **attacker exploits a vulnerability in a Bluetooth-enabled** device to gain unauthorized access to it. The attacker can then use the compromised device to make calls, **send messages, or access other data without the user's knowledge or consent.**

What are the Government Initiatives Related to Cyber Security?

- **Indian Cyber Crime Coordination Centre (I4C)**
- **Indian Computer Emergency Response Team (CERT-In)**
- **Cyber Surakshit Bharat**

- **Cyber Swachhta Kendra**
- **National Cyber security Coordination Centre (NCCC)**

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims

Q.1 In India, under cyber insurance for individuals, which of the following benefits are generally covered, in addition to payment for the loss of funds and other benefits? (2020)

1. Cost of restoration of the computer system in case of malware disrupting access to one's computer
2. Cost of a new computer if some miscreant wilfully damages it, if proved so
3. Cost of hiring a specialised consultant to minimise the loss in case of cyber extortion
4. Cost of defence in the Court of Law if any third party files a suit

Select the correct answer using the code given below:

(a) 1, 2 and 4 only
(b) 1, 3 and 4 only
(c) 2 and 3 only
(d) 1, 2, 3 and 4

Ans: (b)

Q.2 In India, it is legally mandatory for which of the following to report on cyber security incidents? (2017)

1. Service providers
2. Data centres
3. Body corporate

Select the correct answer using the code given below:

(a) 1 only
(b) 1 and 2 only
(c) 3 only
(d) 1, 2 and 3

Ans: (d)

Mains

Q. What are the different elements of cyber security ? Keeping in view the challenges in cyber security, examine the extent to which India has successfully developed a comprehensive National Cyber Security Strategy. **(2022)**

Source: TH

Public Interest Immunity Claims Proceeding

For Prelims: Sealed Cover Proceedings, Public Interest Immunity Claims Proceedings.

For Mains: SC's Observations over Sealed Cover Proceedings

Why in News?

Recently, the Supreme Court of India **ruled on the use of** sealed cover proceedings **in courts and the telecast ban of a Malayalam channel.**

- The Court criticised the **government for silencing voices in the media and reducing** constitutional rights and procedural guarantees of a fair hearing.
- The Court also devised an **alternative procedure for Public Interest Immunity claims proceedings** to replace the use of sealed covers.

What are Sealed Cover Proceedings?

- The **sealed cover proceedings** are often used in cases **involving sensitive or confidential information**, such as national security matters, or cases where the disclosure of the evidence may compromise the **privacy of individuals involved.**
- In such cases, the documents or evidence are submitted to the court in a sealed cover, and only the **judge and a designated court officer are allowed to examine the contents of the sealed envelope.**
  - The **parties to the case may not have access to the contents** of the sealed cover, and the **court may only rely on the information contained in the sealed cover to make its decision.**
- Sealed cover proceedings are a **means of balancing the need for** transparency in the judicial process with the need to **protect sensitive information or individuals' privacy.**
  - However, the use of **sealed covers has reduced constitutional rights** and procedural guarantees of a fair hearing under the law.

What is Public Interest Immunity Claims Proceeding?

- **About:**
  - The **Supreme Court** evolved the **"less restrictive" Public Interest Immunity (PII)** claims proceedings as an **"alternative" to the sealed cover proceedings** while dealing with state requests for confidentiality.
  - The **PII proceedings would be a "closed sitting,"** but a **reasoned order allowing or dismissing the PII claim** of the state should be **pronounced in open court.**
- **Procedure – Role of Amicus Curiae:**
  - The court will appoint an *amicus curiae*, which means **"friend of the court"**, to act as a **bridge between the parties involved in public interest immunity claims.**
    - The **court-appointed amicus will be given access to the materials sought to be withheld by the state and allowed to interact with the applicant** and their lawyer before the proceedings to ascertain their case.
  - The amicus curiae **will not interact with the applicant or their counsel after the public interest immunity proceeding has begun** and the counsel has viewed the document sought to be withheld.
  - The **amicus "shall to the best of their ability represent the interests of the applicant"** and would be **bound by oath to not disclose or discuss the material with any other person.**

- **Drawback:**
  - Since, **Article 145 of the Constitution** specifically mandates that all judgments of the Supreme Court be delivered in open court, **closed sitting proceedings as per PII might fall against this constitutional mandate.**
    - **SC's Response:** While the **court recognised that public interest immunity proceedings will take place in a closed setting,** it stated clearly that the **court is required to pass a reasoned order for allowing or dismissing the claim in open court.**
    - Additionally, while PII claims also impact the principles of natural justice, sealed cover proceedings go a step ahead and infringe on the principles of natural justice as well as the principles of open justice.

What are SC's Previous Observations over Sealed Cover Proceedings?

- **P. Gopalakrishnan vs The State of Kerala case (2019):**
  - The **SC held that disclosure of documents to the accused is constitutionally mandated**, even if the investigation is ongoing and documents may lead to a breakthrough in the investigation.
- **INX Media case (2019):**
  - The Supreme Court had criticised the Delhi High Court for basing its decision to deny bail to a former Union Minister **on documents submitted by the Enforcement Directorate (ED) in a sealed cover.**
    - It held the **action as against the concept of fair trial.**
- **Cdr Amit Kumar Sharma v Union of India case (2022):**
  - The SC said, "the **non-disclosure of relevant material to the affected party and its disclosure in a sealed cover to the adjudicating authority…sets a dangerous precedent.**

Source: TH

Pre-draft National Curriculum Framework for School Education

For Prelims: National Curriculum Framework for School Education, Modular Board Exams, National Education Policy 2020.

For Mains: Features of National Education Policy 2020, Major Issues Related to the Education Sector in India, Government Initiatives Related to Educational Reforms.

Why in News?

Recently, the Ministry of Education released a pre-draft version of the **National Curriculum Framework** for School Education and has sought feedback from diverse stakeholders.

- The pre-draft was formulated by a **committee led by K Kasturirangan**, a former head of the **Indian Space Research Organization (ISRO).**

What is the National Curriculum Framework?

- **About:**
  - **NCF is one of the key components of the** New Education Policy(NEP) 2020, that enables and energizes this transformation, informed by the aims, principles, and approach of NEP 2020.
  - The NCF has undergone four revisions in the past - in **1975, 1988, 2000, and 2005.** The **proposed revision, if implemented, would be the fifth iteration** of the framework.
- **Four Sections of NCF:**
  - **NCF for School Education**
  - **NCF for Early Childhood Care and Education (Foundational Stage)**
  - **NCF for Teacher Education**
  - **NCF for Adult Education**
- **Objective:**
  - It aims to help in positively transforming the school education system of India as envisioned in NEP 2020, through corresponding positive changes in the curriculum including pedagogy.
  - It aims to realize the highest quality education for all children, consistent with realizing an equitable, inclusive, and plural society as envisaged by the Constitution of India.

What is NCF for School Education?

- **About:**
  - The **National Curriculum Framework for School Education (NCF-SE) is developed based on the vision of the NEP 2020, and to enable its implementation.**
  - The **formulation of NCF-SE will be undertaken by the NCERT.** The NCFSE document shall henceforth be revisited and updated once every 5-10 years, considering the frontline curriculum.
- **Objectives:**
  - The **NCFSE serves as a guideline for developing syllabi, textbooks, and teaching practices in India.**
  - Its objectives include **shifting from rote (memorization by repetition) learning, connecting education to real-life situations,** making examinations more flexible, and enriching the curriculum beyond textbooks.
  - The NCFSE also aims to make **learning enjoyable, child-centered, and self-reliant, and promote democratic values.** It provides guidelines for counseling secondary school students and is mandated for all age groups.

What is the Pre-draft National Curriculum Framework for School Education?

- **About:**
  - The document covers the curriculum **framework for children aged 3 to 18 years** and seeks feedback from students, parents, teachers, educators, experts, scholars, and professionals.
- **Key Features:**
  - **Learning via 6 Pramana's:**
    - **Pratyaksa**, interpreted as **perception through five senses;**
    - **Anumana,** which uses **inferences to come to new conclusions;**
    - **Upamana,** which is knowing through **analogy and comparison;**
    - **Arthapatti**, which involves knowing through **circumstantial implication,**
    - **Anupalabdhi**, which includes **perception of non-existence,**
    - **Sabda,** which is "something an individual can only **directly know a fraction of all reality"**
  - **Panchakosha Vikas for Moral Development:**
    - Indian education system emphasizes a holistic approach that fosters **moral development, cultural understanding, and social awareness among children.**
    - This is achieved through a five-fold development approach that includes traditional

practices like yoga, a balanced diet, and cultural activities.
- **Teachings from Indian History:**
    - Education in India **encourages questioning and debates to stimulate critical thinking and open-mindedness,** as exemplified by the Upanishads.
    - Additionally, Indian history education identifies and explains important phases of the **Indian national movement against British rule,** with **special reference to the Gandhian and subaltern movements,** to promote **national identity and social justice.**
    - Teaching the concepts of different religious and philosophical traditions, including Buddhism**,** Jainism**, and** Vedic **philosophies, to promote cultural diversity and interfaith understanding.**
- **No Exams till Class 2:**
    - It proposes that explicit tests and exams are not suitable assessment tools for children in classes up to 2 and recommends introducing written tests only from class 3 onwards to avoid imposing additional burden on the child.
- **Curriculum for Secondary Stage:**
    - For **Grade 10 certification, students will have to take two essential courses from humanities, maths and computing, vocational education, physical education, arts education, social science, science, and interdisciplinary areas.**
    - In **Grades 11 and 12, students will be offered choice-based courses in the same disciplines for more rigorous engagement.**
        - This phase of the **Secondary Stage would be divided into semesters** and each choice-based course would be for a semester.
        - **Students must complete 16 choice-based courses to complete Grade 12.**
    - **Modular Board Exams** will be offered **as opposed to a single exam** at the end of the year, and the result will be based on the cumulative result of each exam.
- **Arts and Interdisciplinary Areas:**
    - Arts education will include music, dance, theatre, sculpture, painting, set design, and scriptwriting, while interdisciplinary areas will include knowledge of India, traditions, and practices of Indian knowledge systems.
- **Significance:**
    - The National Curriculum Framework for School Education is significant because it provides a roadmap for the education of children in India, which includes **multiple educative approaches and learning-teaching material for different stages of school education.**
    - The framework emphasizes the importance of including values and their **"rootedness"** in India, including content, language learning, academic approaches, philosophical basis, aims, and epistemic approach.

What are the Other Government Initiatives Related to Educational Reforms?

- **National Programme on Technology Enhanced Learning.**
- **Sarva Shiksha Abhiyan**
- **PRAGYATA**
- **Mid Day Meal Scheme**
- **Beti Bachao Beti Padhao**
- **PM SHRI Schools**

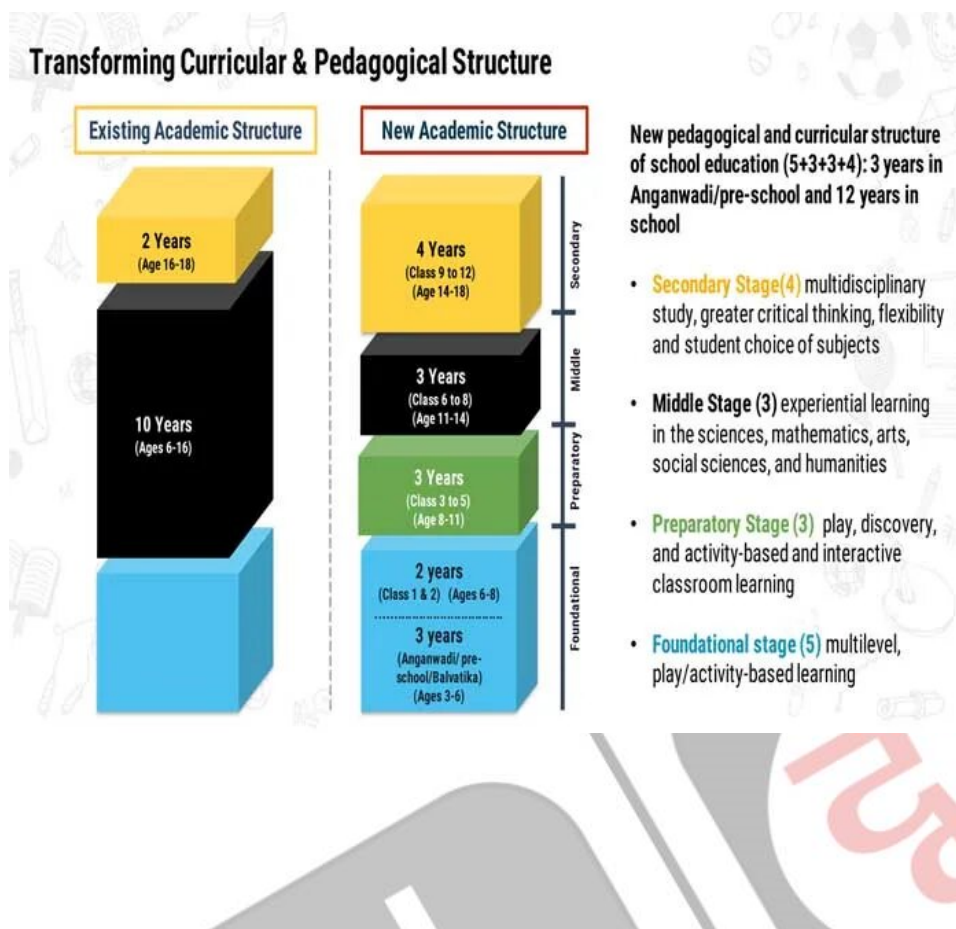# What is the National Education Policy 2020?

- **About:**
    - The NEP 2020 is a **comprehensive framework for education reform** in India that was approved in 2020, aiming to bring **significant changes in the education system of India** by providing a holistic and multidisciplinary approach to education.
- **Features of the NEP 2020:**
    - Universalization of education from preschool to secondary level.
    - Introduction of a **new pedagogical and curricular structure** based on cognitive and

- socio-emotional development of students.
  - Emphasis on the development of **foundational literacy and numeracy** skills in primary education.
  - Increased focus on research and development in education.

Transforming Curricular & Pedagogical Structure

Existing Academic Structure

- 2 Years (Age 16-18)
- 10 Years (Ages 6-16)

New Academic Structure

- 4 Years (Class 9 to 12) (Age 14-18) — Secondary
- 3 Years (Class 6 to 8) (Age 11-14) — Middle
- 3 Years (Class 3 to 5) (Age 8-11) — Preparatory
- 2 years (Class 1 & 2) (Ages 6-8) — Foundational
- 3 years (Anganwadi/ pre-school/Balvatika) (Ages 3-6) — Foundational

New pedagogical and curricular structure of school education (5+3+3+4): 3 years in Anganwadi/pre-school and 12 years in school

- **Secondary Stage(4)** multidisciplinary study, greater critical thinking, flexibility and student choice of subjects
- **Middle Stage (3)** experiential learning in the sciences, mathematics, arts, social sciences, and humanities
- **Preparatory Stage (3)** play, discovery, and activity-based and interactive classroom learning
- **Foundational stage (5)** multilevel, play/activity-based learning

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims

Q. Consider the following statements: (2018)

1. As per the Right to Education (RTE) Act, to be eligible for appointment as a teacher in a State, a person would be required to possess the minimum qualification laid down by the State Council of Teacher Education concerned.
2. As per the RTE Act, for teaching primary classes, a candidate is required to pass a Teacher Eligibility Test conducted in accordance with the National Council of Teacher Education guidelines.
3. In India, more than 90% of teacher education institutions are directly under the State Governments.

Which of the statements given above is/are correct?

(a) 1 and 2
(b) 2 only
(c) 1 and 3
(d) 3 only

Ans: (b)

Mains

Q. National Education Policy 2020 is in conformity with the Sustainable Development Goal-4 (2030). It

intends to restructure and reorient education system in India. Critically examine the statement. **(2020)**

The Language Friendship Bridge

For Prelims: The Language Friendship Bridge, ICCR, Maulana Abul Kalam Azad, shared cultural heritage.

For Mains: Challenges and opportunities in implementing The Language Friendship Bridge Project.

Why in News?

The **Indian Council for Cultural Relations (ICCR)** has envisaged a project called **'The Language Friendship Bridge',** which aims to expand cultural footprint in neighborhoods with whom India has historical ties.

- The project aims to enable India to translate its epics and classics, as well as contemporary literature, into these languages **so that people in both countries can read them.**

What is the Project about?

- **About:**
  - The Project will create a pool of experts in languages spoken in countries like **Myanmar, Sri Lanka, Uzbekistan and Indonesia** to facilitate better **people-to-people exchanges.**
  - It will train five to 10 people in the official languages of each of these countries.
    - As of now, the ICCR has zeroed in on 10 languages: Kazakh, Uzbek, Bhutanese, Ghoti (spoken in Tibet), Burmese, Khmer (spoken in Cambodia), Thai, Sinhalese and Bahasa (spoken in both Indonesia and Malaysia).
  - Though a number of universities and institutes offer courses in these languages, only a handful teach any of the **10 languages on the ICCR list.**
    - Sinhala, for example, is taught at the **Banaras Hindu University and the School of Foreign Languages (SFL)** under the Ministry of Defence.
- **Significance**:
  - The project is significant for India's foreign policy and cultural diplomacy, as it will help **deepen India's cultural and economic relations** with these countries.
  - By training language experts in the official languages of these countries, **India will be able to communicate more effectively and build stronger cultural** and economic ties with its neighbors.
  - It is also particularly important in the **current geopolitical context**, as India is looking to strengthen its relations with its neighboring countries to counter **China's growing influence in the region.**
  - By promoting cultural exchanges, India can build stronger people-to-people relations with these countries, which **can help to counter the negative impact of Chinese economic and strategic initiatives** in the region.

What is ICCR?

- The ICCR is an autonomous organisation of the Government of India under the Ministry of External Affairs.
- It promotes **cultural diplomacy through cultural exchange** with other countries.
- It was founded in **1950 by India's first Education Minister, Maulana Abul Kalam Azad.**
- ICCR has been assigned the responsibility of facilitating the celebration of the **International Day of Yoga** by Indian Missions/Posts abroad since 2015.
- ICCR has instituted several awards, including the **Distinguished Indologist Award,** World Sanskrit Award, Distinguished Alumni Award, and Gisela Bonn Award, which are conferred upon foreign nationals for their contributions in different fields.

What are the Challenges?

- One of the major challenges is the **lack of infrastructure and trained teachers** in India to teach these languages. The project will require **significant investment in setting up language centers** and training teachers to teach these languages effectively.
- Additionally, the project will require significant **resources to provide scholarships to Indian students to study these languages** in the countries where they are spoken.
- Moreover, the project also faces the challenge of expanding the current list of languages, as there are several neighboring countries where India has significant cultural and economic ties, and **whose languages are not currently included** in the project.

Way Forward

- While the project faces several challenges, it also **presents an opportunity for India to deepen its cultural and economic ties with its neighbors** and counter China's growing influence in the region.
- Experts believe that the ICCR's list of languages needs to be expanded, as India sees a **boom in cultural and economic ties with other neighboring countries as well.**
- For example, **with the rise of medical tourism, there is a need for a pool of translators and interpreters** to facilitate the visits of people from countries like Turkey, Bangladesh, Afghanistan, and Maldives.
    - JNU (Jawaharlal Nehru University) will soon be starting a course in Pashto to address this need.

Source: TH

Tiger Census 2022

Why in News?

The Prime Minister of India has released the figures of the 5th cycle of India's **Tiger Census 2022**, revealing 6.7% in the increase in the past four years.

- The tiger census **covered forested habitats in 20 states of India.** Camera traps were set up at 32,588 locations and generated 47,081,881 photographs.
- The PM has released the Census while inaugurating the **International Big Cat Alliance (IBC)** in Karnataka's Mysuru, organised to mark 50 years of **Project Tiger.**

What is the IBCA?

- IBCA is launched for conservation of seven big cats namely Tiger, Lion, Leopard, **Snow Leopard**, Leopard, **Cheetah**, Jaguar and Puma harbouring our planet.
- Its members include 97 countries that are home to these big cats and other interested parties.
- The IBCA will engage in **advocacy, partnerships, capacity building, eco-tourism, and finance tapping.**
- It will also disseminate information and create awareness among its members.

Big cat count

According to the data released by the PM, the number of tigers in India increased by 200 in the past four years. A look at the tiger population

Year	Tiger population
2006	1,411
2010	1,706
2014	2,226
2018	2,967
2022	3,167
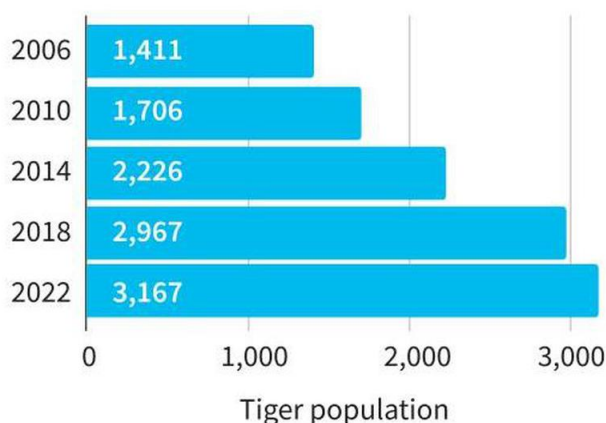
Tiger population

Steady rise: A tiger at Van Vihar National Park in Bhopal on Sunday. PTI

What are the Highlights of the Census?

- **Population:**
  - Population has grown by 200 from 2018 to 2022. The current tiger population in India is 3,167, up from 2,967 in 2018.
- **Growth Rate:**
  - The growth rate slowed to 6.7% in the four years from 2018 to 2022, from **around 33% during 2014-2018.**
- **Increase:**
  - There has been **a significant increase in the tiger population in the** Shivalik Hills and Gangetic Plains, while tiger occupancy in Jharkhand, Odisha, Chhattisgarh, and Telangana showed a decline.
  - The North East Hills and **Brahmaputra** Plains had 194 tigers captured by camera traps, and the region's **Nilgiri cluster is the largest tiger population in the world,** contributing significantly to colonisation of tigers in neighbouring areas.
- **Decline:**
  - Tiger occupancy in the Western Ghats declined, the latest analysis showed. Significant declines were observed in the Wayanad landscape and in the Biligiriranga Hills.
- **High Conservation Priority:**
  - The genetically unique and **small population of tigers in Simlipal is also highlighted as being of high conservation priority.**
  - The report calls for **ecologically viable economic development** and trans-boundary tiger conservation strategies to sustain isolated populations.

What is the Need for Conserving Tigers?

- **Biodiversity:** Tigers are an apex predator and play a vital role in maintaining the ecological balance of their habitats. They help regulate prey populations, which in turn helps maintain the

balance of other species in the ecosystem.

- **Tourism:** Tigers are a major tourist attraction in countries like India and help generate revenue through ecotourism. This revenue can support local communities and contribute to the economy.
- **Cultural Significance:** Tigers are an important cultural symbol in many cultures and religions, including Hinduism and Buddhism.
- **Scientific Research:** Tigers are an important subject of scientific research, as they are a keystone species, and their conservation can help protect other species in their ecosystem.
- **Climate Change:** Tigers are an indicator species, which means that their presence or absence can indicate the health of the ecosystem. Conserving tigers can help protect the ecosystem from the effects of climate change.

Tiger Census in India

- The national tiger census is **done every four years by the National Tiger Conservation Authority (NTCA)** in partnership with state forest departments, conservation NGOs, and the Wildlife Institute of India (WII). The census uses a double sampling method based on ground-based surveys and images from camera-traps.

What are the Key Points Related to Tiger?

- **Scientific Name:** *Panthera tigris*
- Indian Sub Species: Panthera tigris tigris.
- **Habitat:**
  - Its habitat stretches from Siberian temperate forests to subtropical and tropical forests on the Indian subcontinent and Sumatra.
  - It is the largest cat species and a member of the genus Panthera.
  - Traditionally eight subspecies of tigers have been recognized, out of which three are extinct.
    - **Bengal Tigers:** Indian Subcontinent
    - **Caspian tiger:** Turkey through central and west Asia (extinct).
    - **Amur tiger:** Amur Rivers region of Russia and China, and North Korea
    - **Javan tiger:** Java, Indonesia (extinct).
    - **South China tiger:** South central China.
    - **Bali tiger:** Bali, Indonesia (extinct).
    - **Sumatran tiger:** Sumatra, Indonesia.
    - **Indo-Chinese tiger:** Continental south-east Asia.
- **Threats:**
  - Habitat destruction, habitat fragmentation and poaching.
- **Protection Status:**
  - Indian Wildlife (Protection) Act, 1972**: Schedule I**
  - **International Union for Conservation of Nature (IUCN) Red List: Endangered.**
  - **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES):** Appendix I.
- **Tiger Reserves in India**
  - **Total Number:** 53 according to NTCA.
  - **Largest: Nagarjunsagar Srisailam Tiger Reserve**, Andhra Pradesh on the basis of core area.
  - **Smallest**: Orang tiger reserve in Assam on the basis of core area.

FACTS

❍ A State Government, on the recommendation of the National Tiger Conservation Authority, notify an area as a tiger reserve.
❍ Largest Tiger Reserve (Core Area): Nagarjunsagar Srisailam (Andhra Pradesh).
❍ Smallest Tiger Reserve (Core Area): Orang (Assam).
❍ Reserve with Highest Tiger Density: Corbett (Uttarakhand) (All India Tiger Estimation 2018).
❍ State with Maximum Tigers: Madhya Pradesh (All India Tiger Estimation 2018).

What are the Related Steps Taken?

- **Project Tiger 1973:** Project Tiger is a Centrally Sponsored Scheme of the Ministry of Environment, Forests and Climate Change (MoEFCC) launched in 1973. It provides havens for tigers in the country's national parks.
- **National Tiger Conservation Authority (NTCA):** It is a statutory body under the MoEFCC and was established in 2005 following the recommendations of the Tiger Task Force. NTCA has been constituted under has been constituted under section 38 L (1) of Wildlife (Protection) Act, 1972.
- **Conservation Assured | Tiger Standards:** CA|TS is a set of criteria which allows tiger sites to check if their management will lead to successful tiger conservation.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. Among the following Tiger Reserves, which one has the largest area under "Critical Tiger Habitat"? (2020)

(a) Corbett
(b) Ranthambore

(c) Nagarjunasagar-Srisailam
(d) Sundarbans

Ans: (c)

- Critical Tiger Habitats (CTH), also known as core areas of tiger reserves, are identified under the Wild Life Protection Act, 1972 based on scientific evidence that "such areas are required to be kept as inviolative for the purpose of tiger conservation, without affecting the rights of the Scheduled Tribes or such other forest dwellers".
- The CTHs are notified by the state government in consultation with the expert committee constituted for the purpose.
- Area of the Core/Critical Tiger Habitat
  - Corbett (Uttarakhand): 821.99 sq. Kms
  - Ranthambore (Rajasthan): 1113.36 sq. Kms
  - Sundarbans (West Bengal): 1699.62 sq. Kms
  - Nagarjunsagar Srisailam (part of Andhra Pradesh): 2595.72 sq. Kms
- **Therefore, option (c) is the correct answer.**

Discovery of a New Uranium Isotope

Why in News?

In pursuit of a **'magic number',** Physicists in Japan have recently discovered a **new** isotope of uranium with **atomic number 92 and mass number 241.**

What are the Major Highlights of the Discovery?

- **About:**
  - The researchers accelerated **uranium-238 nuclei into plutonium-198 nuclei at the KEK Isotope Separation System (KISS).** In a process called multinucleon transfer, the two isotopes exchanged protons and neutrons.
  - The resulting nuclear fragments contained different isotopes.
  - The team used **time-of-flight mass spectrometry** to measure the mass of each nucleus.
- **Findings:**
  - It was identified as **uranium-241 and measured the mass of its nucleus.** Theoretical calculations suggest that this **new isotope could have a half-life of 40 minutes.**
    - This discovery is the **first of its kind since 1979** due to the extreme difficulty of synthesising a nuclide in this region by general reaction.
- **Importance:**
  - This finding is significant **in refining our understanding of nuclear physics** and has implications in **designing** nuclear power plants **and models of exploding stars.**
    - Measuring the mass of uranium and its neighbourhood elements yields **essential nuclear information to understand the synthesis of such heavy elements** in explosive astronomical events.
- **Future Implications:**
  - This new approach using multinucleon transfer reaction and KISS is expected to **lead to the discovery of more neutron-rich actinide nuclides**, elucidating the stability of nuclides and the process of astronomical nucleosynthesis.

Note: Uranium (chemical symbol U) is a naturally occurring radioactive element. In its natural state, Uranium consists of three isotopes **(U-234 (0.0057%), U-235 (0.72%)** and U-238 (99.28%)). Other isotopes that cannot be found in natural uranium are **U-232, U-233, U-236 and U-237.**

What are Magic Numbers'?

- In **nuclear physics**, "magic numbers" are **specific numbers of nucleons (protons or neutrons)** that correspond to **particularly stable configurations within atomic nuclei.**
- These numbers are believed to arise from the underlying shell structure of atomic nuclei.
    - The heaviest known **'magic' nucleus is lead (82 protons).**

UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. In India, why are some nuclear reactors kept under "IAEA safeguards" while others are not? (2020)

(a) Some use uranium and others use thorium
(b) Some use imported uranium and others use domestic supplies
(c) Some are operated by foreign enterprises and others are operated by domestic enterprises
(d) Some are State-owned and others are privately-owned

Ans: (b)

- The **nuclear facilities are kept under International Atomic Energy Agency (IAEA)** safeguards **if the source of Uranium** which is the fissile material for a nuclear reactor is **from outside the territory of India or** if the new reactor plants are established with foreign collaboration.
- This is to ensure that imported uranium was not diverted for military use and assure that the imported uranium is used to generate nuclear energy for civilian purposes.
- There are at present 22 operational reactors, of which 14 are under the IAEA safeguards as these use imported fuel.
- Under safeguards agreement, the IAEA has the right and obligation to ensure that safeguards are applied on all nuclear material in the territory, jurisdiction or control of the State for the exclusive purpose.
- **Therefore, option (b) is the correct answer.**

Source: TH

NASA's TEMPO Mission

Why in the News?

Recently, a **SpaceX Falcon 9** rocket launched the **Tropospheric Emissions Monitoring of Pollution (TEMPO) instrument** from Florida.

What is TEMPO?

- **About:**
  - **TEMPO is a NASA device** that can **track** air pollution **over North America** from space. It will allow scientists to **monitor air pollutants and their** emission sources down to the neighbourhood level.
  - The TEMPO instrument is a grating spectrometer, **sensitive to visible and ultraviolet wavelengths of light.**
- **Features:**
  - TEMPO is hosted on an **Intelsat communications satellite** in geostationary orbit.
  - It will be able **to measure atmospheric pollution** down to a spatial resolution of **4 square miles or neighbourhood level.**
- **Applications and Importance:**
  - TEMPO will have multiple applications from **measuring levels of various pollutants to providing air quality forecasts** and helping the development of emission-control strategies
  - More than **40% of the US population live in places with unhealthy levels of particle pollution or** ozone**,** and air pollution is blamed for some 60,000 premature deaths a year.

What is a Geostationary Orbit?

- **Geostationary orbit** is an orbit around the Earth where a **satellite's orbital period matches the** Earth's rotation, allowing the satellite to stay in a fixed position over the same point on the Earth's surface.
- The height of a geostationary orbit is approximately 35,786 kilometers (22,236 miles) above the Earth's equator.
- Satellites in geostationary orbit are typically used for **communication and weather observation purposes**, as they can provide constant coverage of a specific region without the need for frequent repositioning.

Source: IE

Protest of Idu Mishmis over Proposed Tiger Reserve

Why in News?

Recently, **National Tiger Conservation Authority (NTCA)** announced that the **Dibang Wildlife Sanctuary** in Arunachal Pradesh would soon be notified as a tiger reserve.

- This move has caused unrest among the Idu Mishmi tribe who feel that a tiger reserve would "hinder their access" to the forest.

Who are the Idu Mishmis ?

- Idu Mishmi is a **sub-tribe of the Mishmi group** in Arunachal Pradesh and neighbouring Tibet, primarily living in the Mishmi Hills bordering Tibet.
    - Their ancestral homelands are spread over the districts of **Dibang Valley** and Lower Dibang Valley as well as parts of Upper Siang and Lohit.
- They are known for their **weaving and craftsmanship skills** and are **estimated** to comprise around **12,000 people** (as per **census 2011**).
- Their **language**, also called **Idu Mishmi,** is considered **endangered by** UNESCO.
- The tribe has strong ties with the region's rich flora and fauna, and their animist tradition led to unique wildlife conservation practices.
- **Tigers** are particularly important to the tribe, and according to their mythology, tigers are their **elder brothers.**
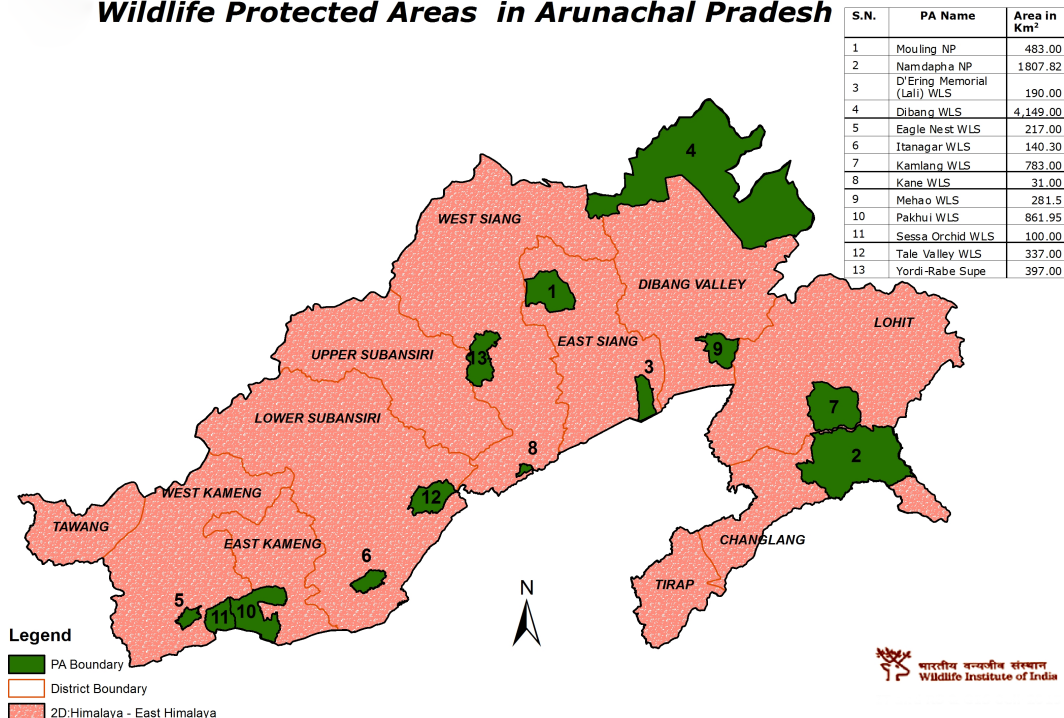
What are the Key Facts about Dibang Wildlife Sanctuary?

- **Location:** The Dibang Wildlife Sanctuary is located in the northeastern state of **Arunachal Pradesh in India.**
    - The sanctuary is **named after the Dibang River,** which flows through it.
- **Biodiversity hotspot:**
    - It is considered a biodiversity hotspot and is **part of** the **Eastern Himalayas Endemic Bird Area.**
- **Flora:**
    - The sanctuary has a diverse range of flora, including **tropical evergreen forests, subtropical broadleaf forests, alpine meadows,** and subalpine **coniferous forests.**
    - Some of the important tree species found here include **oak, rhododendron, bamboo, and fir.**
- **Fauna:**
    - The Sanctuary is home to several rare and endangered species of animals, including the **Mishmi takin, musk deer, goral, clouded leopard, snow leopard**, and **tiger.**
    - It is also home to several bird species such as the **Satyr tragopan, Blyth's tragopan, and Temminck's tragopan.**
- **People:**
    - The sanctuary is home to several indigenous communities, such as Idu Mishmi.
- **Conservation efforts:**
    - The Dibang Wildlife Sanctuary was **notified in 1998** to protect its rich biodiversity.
    - Over the years, several conservation efforts have been undertaken, including mapping the tiger habitat and counting tigers in the area.
    - The **proposal to declare** the sanctuary as a **tiger reserve** is part of these efforts.
- **Threats:**
    - The Dibang Wildlife Sanctuary is facing several threats, including **habitat loss, poaching, and human-wildlife conflict.**
    - The **proposed tiger reserve** is expected to provide better protection to the sanctuary's wildlife and their habitat.

What are the Other Protected Areas in Arunachal Pradesh?

- **Pakke Wildlife Sanctuary.**
- **Namdapha National Park**
- **Mouling National Park**
- **Kamlang Wildlife Sanctuary.**
- **Itanagar Wildlife Sanctuary.**
- **Eagle Nest Wildlife Sanctuary.**

Wildlife Protected Areas in Arunachal Pradesh

S.N.	PA Name	Area in Km²
1	Mouling NP	483.00
2	Namdapha NP	1807.82
3	D'Ering Memorial (Lali) WLS	190.00
4	Dibang WLS	4,149.00
5	Eagle Nest WLS	217.00
6	Itanagar WLS	140.30
7	Kamlang WLS	783.00
8	Kane WLS	31.00
9	Mehao WLS	281.5
10	Pakhui WLS	861.95
11	Sessa Orchid WLS	100.00
12	Tale Valley WLS	337.00
13	Yordi-Rabe Supe	397.00

Legend
- PA Boundary
- District Boundary
- 2D:Himalaya - East Himalaya

भारतीय वन्यजीव संस्थान
Wildlife Institute of India

UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. Consider the following statements: (2010)

1. Biodiversity hotspots are located only in tropical regions.
2. India has four biodiversity hotspots i.e., Eastern Himalayas, Western Himalayas, Western Ghats and Andaman and Nicobar Islands.

Which of the statements given above is/are correct?

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

Ans: (d)

Exp:

- The British biologist Norman Myers coined the term "biodiversity hotspot" in 1988 as a biogeographic region characterized both by exceptional levels of plant endemism and by serious levels of habitat loss. To qualify as a hotspot, a region must meet two strict criteria – it must contain at least 1,500 species of vascular plants (which is more than 0.5% of the world's total) as endemics, and it has to have lost at least 70% of its original habitat.
- There are currently 36 recognized biodiversity hotspots. While most of them are in tropical regions, some like Eastern Australian temperate forests, Succulent Karoo (South Africa), etc., are outside tropical regions. **Hence, statement 1 is not correct.**
- India hosts 4 biodiversity hotspots – the Himalayas, the Western Ghats, the Indo-Burma region and the Sundaland (includes Nicobar group of Islands). **Hence, statement 2 is not correct.**

- **Therefore, option (d) is the correct answer**

James Webb Space Telescope Captures Uranus and its Rings

Why in News?

The **James Webb Space Telescope,** launched in 2021, has captured a **clear image of the planet Uranus and its rings.**

What are the Major Points Related to Uranus?

- Uranus is an **ice giant due to the chemical makeup of its interior,** with most of its mass being a hot and dense fluid of icy materials like **water,** methane**, and** ammonia.
- **Uranus rotates on its side**, with a roughly **90-degree angle from the plane of its orbit.** This leads to extreme seasons and long periods of sunlight and darkness.
    - **Uranus is among** only two planets in our solar system that rotate clockwise along with **Venus.**
    - The planet takes **84 earth years to orbit the Sun.**
- Uranus has **13 rings, with 11 visible in the image.** Some of the rings are very bright and close together, appearing as a larger ring.
    - The planet also has **27 known moons.**
- Uranus has a **unique polar cap that appears during summer and vanishes** in the fall. Webb's data can help scientists understand this mechanism.
- **In 1986,** NASA's Voyager 2 made the first - and so far, the **only - visit to Uranus.**
- New Horizons passes the orbit of Uranus on its way to Pluto, becoming the first spacecraft to journey beyond Uranus' orbit since Voyager 2.
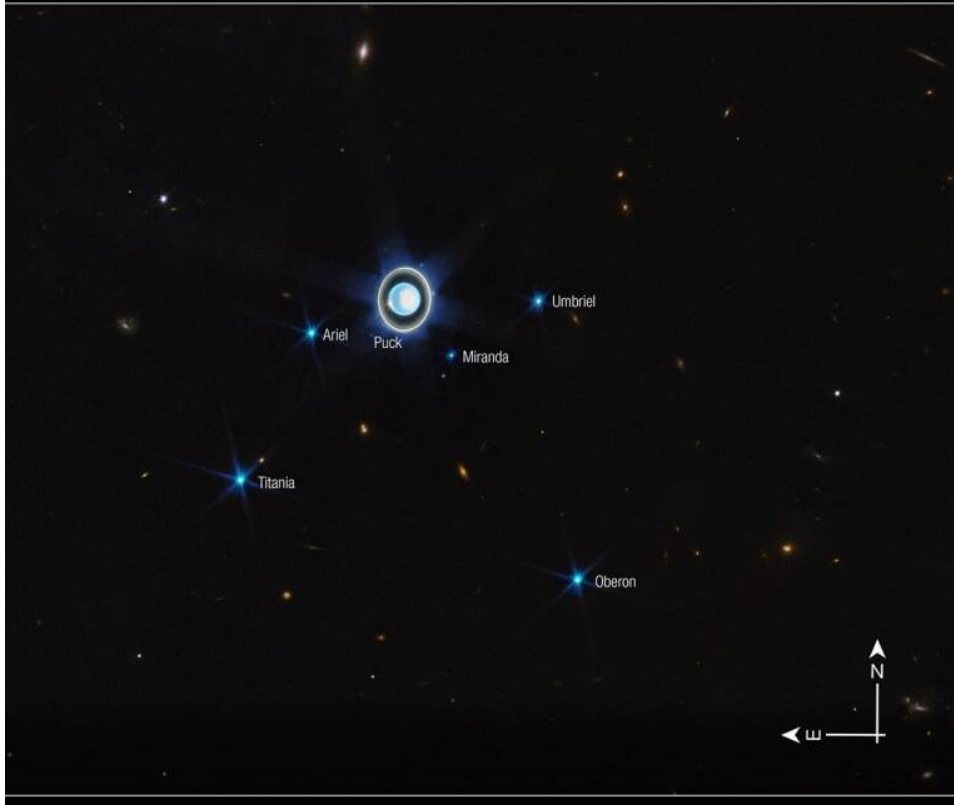
What is a James Webb Space Telescope?

- The **James Webb Space Telescope (JWST)** is a **large**, **infrared telescope** designed to observe the most distant objects in the universe.
  - The JWST is the **successor to the** Hubble Space Telescope.
- It is a collaboration between NASA**, the European Space Agency (ESA), and the Canadian Space Agency (CSA).**
- The telescope was launched in **December 2021 and is currently at a point in space known as the Sun-Earth L2** Lagrange point**, approximately 1.5 million km beyond Earth's orbit around the Sun.**
  - **Lagrange Point 2** is one of the **five points in the orbital plane of the Earth-Sun system.**
  - **Lagrange Points** are positions in space where the **gravitational forces of a two-body system (like the Sun and the Earth)** produce enhanced regions of attraction and repulsion.
- Its primary mission is to study the **early universe, the formation of galaxies, stars, and planets, and the atmospheres of** exoplanets.

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims

Q. Which of the following pairs is/are correctly matched? (2014)

Spacecraft Purpose

1. Cassini-Huygens : Orbiting the Venus and transmitting data to the Earth
2. Messenger : Mapping and investigating the Mercury
3. Voyager 1 and 2 : Exploring the outer solar system

Select the correct answer using the code given below:

(a) 1 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Ans: (b)

- **Cassini-Huygens was sent to study Saturn and its moons.** It was a joint collaboration between NASA and European Space Agency. It was launched in 1997 and entered Saturn's orbit in 2004. The mission ended in 2017. **Hence, pair 1 is not correctly matched.**
- **Messenger,** a spacecraft by NASA was sent **to map and investigate Mercury.** It was launched in 2004 and entered Mercury's orbit in 2011. The mission ended in 2015. Hence, pair 2 is correctly matched.
- **Voyager 1 and 2 were launched by NASA in 1977 to explore the outer solar system.** Both the spacecrafts are still operational. Hence, pair 3 is correctly matched.
- **Therefore, option (b) is the correct answer.**

Mains

Q. Launched on 25th December, 2021, James Webb Space Telescope has been much in the news since then. What are its unique features which make it superior to its predecessor Space Telescopes? What are the key goals of this mission? What potential benefits does it hold for the human race? **(2022)**

Source: IE

Rapid Fire Current Affairs

3D Printing

Bengaluru's Ulsoor Bazaar post office is set to become home to **India's first post office built using 3D printing technology.** Three-dimensional printing, also known as **additive manufacturing**, is a revolutionary technology that is being increasingly used in the construction industry. **With** 3D printing**, it is possible to create complex, customized, and intricate designs using computer-aided design (CAD) software.**

This technology can be used to create parts, structures, and even entire buildings. One of the main advantages of 3D printing in construction is the **ability to reduce construction time and costs.** By eliminating the need for extensive **formwork (Mold used to form concrete into structural shapes), scaffolding, and labor,** the construction process can be streamlined, and significant savings can be achieved. Moreover, 3D printing allows for the creation of **lighter and more durable structures** that are also more **environmentally friendly.** Despite its many advantages, there are still some challenges associated with 3D printing in construction. **One of the main challenges is the limited size of the printers, which makes it difficult to construct larger buildings.** Additionally, the materials used for 3D printing are still limited, which limits the variety of structures that can be created.

Read more: National Strategy for Additive Manufacturing Policy

Tamil Nadu Assembly Urges Time Frame for Approval of Bills

The **Tamil Nadu assembly has passed a resolution urging the central government and** President **to establish a timeframe for** governors **to give their assent to bills** adopted by the House. The resolution was passed **following Governor remarks that bills that are withheld should be considered "dead".**

According to the Constitution, the governor cannot reject a bill sent by the assembly. **He can return a bill to the government** with his objections or observations and if the assembly clears it for a second time, **he can either give his consent or forward the bill for the President's consideration**. And **he can withhold the bill**, withholding has been defined by the Supreme Court as the bill falls through, and **the bill is dead.** When the bill is 'withhold', the bill is dead. However, the Constitution does not provide a timeframe for the governor to approve bills.

Read more: Governor's Power to Decide on Bills: Veto Power

Waste-to-Energy Plant

The Bowenpally Vegetable Market in Hyderabad has implemented an innovative waste management system. The market collects nearly 10 tons of waste every day, which is now converted into bioelectricity, biogas, and bio-manure through a waste-to-energy plant. The unsold and rotten vegetables are shredded and crushed into pulp, which undergoes **anaerobic digesters to produce** biogas**.** The biogas is collected and stored in balloons and used for cooking and powering the market facilities through a biogas generator. Bio-manure **is also produced as a by-product of the process.** The waste generated, which previously ended up in landfills, is now used to generate approximately 500 units of electricity and 30 kg of biofuel per day.

The waste-to-energy plant also generates **employment for women by providing opportunities for them to work in various roles.** The plant is funded by the **Department of Biotechnology and Department of Agriculture Marketing Telangana** is set up under the guidance and patented technology of CSIR**-IICT.** The waste-to-energy plant is not only an innovative solution to the waste management problem but also a significant step towards **sustainable development.**

Read more: Wate to Energy

125th Anniversary of Ramakrishna Math

The Indian Prime Minister recently visited the Vivekananda House in Chennai, as part of the **125th -anniversary celebration of the Ramakrishna Math** institution's service in Chennai.

Ramakrishna Math is a worldwide, **non-political, non-sectarian spiritual organization** that has been engaged in various forms of **humanitarian and social service activities for more than a century**. Inspired by the ideals of **renunciation and service.**

Math serves millions of men, women, and children, without any distinction of caste, religion, or race, because they see the living God in them. The organizations were brought into existence by **Sri Ramakrishna (1836-1886)**, the great 19th-century saint from **Bengal who is regarded as the Prophet of the Modern Age**, is a who **sought religious salvation** in the traditional ways of renunciation, meditation, and devotion. He was a saintly person who recognized the fundamental oneness of all religions and emphasized that there were many roads to God and salvation and the service of man is the service of God.

The teaching of Ramakrishna Paramhansa formed the basis of the **Ramakrishna Movement** and Sri Ramakrishna's chief disciple, **Swami Vivekananda (1863-1902)**, one of the foremost thinkers and religious leaders of the present age, who is regarded as **'one of the main molders of the modern world'.**

Read more: Ramakrishna Mission's Awakening Programme