Forest (Conservation) Amendment Bill, 2023

For Prelims: Forest (Conservation) Act, (FC) 1980, Afforestation and Plantation.

For Mains: Proposed Changes in Forest (Conservation) Amendment Bill, 2023.

Why in News?

Recently, the government introduced **the** Forest (Conservation) Amendment Bill, 2023 in Lok Sabha and proposed changes to **the Forest (Conservation) Act, (FC) 1980.**

- The aim of the proposed changes is to build forest carbon stock by **raising** plantations**.** The Bill also seeks to make **land available for** compensatory afforestation.

What is the Background and Proposed Changes in FC Act, 1980?

- **Background:**
  - After Independence, **vast areas of forest land were designated as reserved and protected forests.**
    - However, many forested areas were left out, and areas without any standing forests were included in **'forest' lands.**
  - In 1996, the **Supreme Court** **suspended the felling of trees across the country,** and ruled that the **FC Act would apply to all land parcels that were either recorded as 'forest' or resembled the dictionary meaning of forest.**
  - In June 2022, the government amended the **Forest Conservation Rules** to propose a **mechanism to allow developers to raise plantations "over land on which the (FC) Act is not applicable"** and to **swap such plots against subsequent requirements of compensatory afforestation.**
- **Proposed Changes:**
  - **Preamble to the Act:**
    - It proposes to insert a **preamble to the Act to encompass the country's rich tradition of preserving forests,** their bio-diversity and tackling **climate change** challenges within its ambit.
  - **Restrictions on Activities in Forest:**
    - The Act restricts the **de-reservation of forest or use of forest land for non-forest purposes**. Such restrictions may be lifted with the prior approval of the central government. **Non-forest purposes include use of land for cultivating horticultural crops or for any purpose other than reafforestation**.
    - The Bill adds more activities to this list such as: **(i) zoos and safaris under the** Wild Life (Protection) Act, 1972 **owned by the government or any authority, in forest areas other than protected areas, (ii) eco-tourism facilities, (iii) silvicultural operations (enhancing forest growth), and (iv) any other purpose specified by the central government.**
  - **Land under the Purview of the Act:**
    - The Bill provides that two types of land will be under the purview of the Act: **(i) land declared/notified as a forest under the Indian Forest Act, 1927 or**

under any other law, or (ii) land not covered in the first category but notified as a forest on or after October 25, 1980 in a government record.

- Further, the Act will not apply to land changed from forest use to non-forest use on or before December 12, 1996 by any authority authorized by a state/UT.
  - ○ **Power to Issue Directions:**
    - The Bill adds that the **central government may issue directions for the implementation of the Act** to any other authority/ organisation under or recognised by the centre, state, or union territory.
  - ○ **Exemptions:**
    - It seeks to exempt all **strategic linear projects of "national importance and concerning national security**" within **100 km of international borders,** the **LAC**, and the **LoC.**
    - The proposed amendment also includes exemptions for **"security-related infrastructure" up to 10 hectares,** and additional activities such as **silvicultural operations, construction of zoos and wildlife safaris, eco-tourism facilities,** and any other activities specified by the Central Government.
- **Issues:**
  - ○ With the amendments, **all those forest lands which do not fall in the** reserved area **but are available in government records before 1980** will not come under the purview of the Act.
    - This **diverts away from the Supreme Court's 1996 verdict which had ensured every forest mentioned in government records gets legal protection against** deforestation.
  - ○ Critics argue that the terms like 'proposed', 'ecotourism facilities', and 'any other purposes' can be **exploited or misused for activities damaging forests** and ecosystems in forest lands.
    - They also argue that **plantations are a significant threat to Indian forests as they replace the natural ecosystems**, affect soil quality, and **particularly threaten the native biodiversity.**

UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. Consider the following statements: (2019)

1. As per recent amendment to the Indian Forest Act, 1927, forest dwellers have the right to fell the bamboos grown on forest areas.
2. As per the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, bamboo is a minor forest produce.
3. The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 allows ownership of minor forest produce to forest dwellers.

Which of the statements given above is/are correct?

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

Ans: (b)

- The **Indian Forest (Amendment) Bill 2017 permits felling and transit of bamboo grown in non-forest areas**. However, bamboo grown on forest lands would continue to be classified as a tree and would be guided by the existing legal restrictions. Hence, statement 1 is not correct.
- The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, **recognises bamboo as a Minor Forest Produce and vests the "right of ownership, access to collect, use and dispose of minor forest produce"** with Scheduled Tribes and Traditional Forest Dwellers. **Hence, statements 2 and 3 are correct.**
- **Therefore, option (b) is the correct answer.**

Indian Space Policy 2023

For Prelims: Indian Space Policy 2023, NewSpace India Limited, IN-SPACe, SAMVAD Program, Defence Space Agency (DSA), Starlink-SpaceX, Space debris, Weaponization of outer space, Project NETRA.

For Mains: Challenges Related to Space Sector, Enhancing Space Self-Defence Capacities, Space 4Women in India.

Why in News?

The **Indian Space Policy 2023** was approved by the **Cabinet Committee on Security.** The policy **seeks to institutionalise** private sector participation in the space sector, with ISRO focusing on **research and development of advanced** space technologies.

What are the Major Provisions of Indian Space Policy 2023?

- **About:**
  - The policy will pave the **way forward with much-required clarity in space reforms** and augment private industry participation to drive the space economy opportunity for the country.
- **Delineation of Roles:**
  - The policy delineates the roles and responsibilities of **Indian Space Research Organisation (ISRO)**, **space sector PSU** NewSpace India Limited (NSIL), and Indian National Space Promotion and Authorization Center **(IN-SPACe).**
  - **Strategic activities related to the space sector will be carried out by NSIL**, which will work in a demand-driven mode.
  - **IN-SPACe** will be the interface between **ISRO and non-governmental entities.**
  - **ISRO** will **focus its energies on developing new technologies,** new systems and research and development.
  - The operational part of ISRO's missions will be moved to the **NewSpace India Limited.**
- **Entry of Private Sector:**
  - The policy will allow the **private sector to take part in end-to-end space activities** that include building satellites, rockets, and launch vehicles, data collection and dissemination.
  - The **private sector can use ISRO facilities** for a small charge and is encouraged to invest in creating new infrastructure for the sector.
- **Impact:**
  - The policy will help India increase its share in the global space economy substantially from less than **2% to 10% in the future.**

What is the Current Status of India's Space Sector?

- **About:**
  - The **Indian Space Sector has been globally recognised for building cost-effective satellites**, and now India is even taking foreign satellites to space.

- As part of **India's commitment to the** [Geneva Conference](#) **on Disarmament,** the country continues to advocate peaceful and civilian use of outer space and oppose any weaponization of space capabilities or programs.
- ISRO is the **6th largest space agency in the world** and holds an exceptional success rate.
  - With over **400 private space companies,** India ranks fifth globally in no. of space companies.
- **Recent Developments in India's Space Sector:**
  - **Defence Space Agency:** India has recently set up its [Defence Space Agency (DSA)](#) **supported by the Defence Space Research Organisation (DSRO)** that has the mandate to create weapons to **"degrade, disrupt, destroy or deceive an adversary's space capability".**
    - Also, the Indian Prime Minister launched the **Defence Space Mission** at the Defence Expo 2022, Gandhinagar.
  - **Expanding Satellite Manufacturing Capabilities:** India's satellite-manufacturing opportunity **will reach USD 3.2 billion by the year 2025** (in 2020 it was USD 2.1 billion)
  - **SAMVAD Program:** To encourage and nurture space research among young minds, ISRO launched its **Student Outreach Program called SAMVAD** at its Bengaluru facility.

What are Current Major Challenges Related to the Space Sector?

- **Lack of Regulations on Commercialisation:** The **commercialization of outer space** is accelerating due to the development of private satellite expeditions for **Internet services (**[Starlink-SpaceX](#)**) and for** [space tourism.](#)
  - It is possible that if **no regulatory framework is put in place,** rising **commercialisation may lead to monopolisation in the future.**
- **Rising Space Debris:** As outer space expeditions increase, **more** [space debris](#) **will accumulate.** Because objects orbit Earth at such high speeds, **even a small piece of space debris can damage a spacecraft.**
- **China's Space Leap:** Compared to other countries, the Chinese space industry has grown rapidly. It has **successfully launched its own navigation system,** [BeiDou](#)**.**
  - It is very likely that China's Belt Road Initiative (BRI) members will contribute to or join the Chinese space sector, **solidifying China's global position and may lead to** [weaponization of outer space.](#)
- **Increasing Global Trust Deficit:** An **arms race for weaponization of outer space is** creating an **environment of suspicion, competition, and aggressiveness** across the globe, potentially leading to conflict.
  - It would also **put at risk the entire range of satellites as well as those involved in scientific explorations** and communication services.

Way Forward

- **Defending India's Space Assets:** In order to effectively defend its space assets, including **debris and spacecraft,** India needs **reliable and accurate tracking capabilities.**
  - **[Project NETRA](#)**, an **early warning system** in space to detect debris and other hazards to Indian satellites is a good step in this direction.
- **Permanent Seat in Space:** India should take the **initiative to cooperate with international bodies** and plan for a **planetary defense program and joint space missions in the long term.**
  - Also, with the **[Gaganyan mission](#)**, **ISRO has begun to focus on manned space** flight as part of its rethinking of India's space presence.
- **Replicating Space4Women in India**: **[Space4Women](#) is a United Nations Office** for Outer Space Affairs (UNOOSA) project that promotes gender equality and women's empowerment in the space sector.
  - It would be beneficial to **initiate space awareness programmes at the rural level in India,** and **College-ISRO Internship corridors can be built specially for female students** to introduce them to the possibility of stretching their wagon beyond earth.
  - **[AzaadiSAT](#)**, **made by 750 schoolgirls** from India is a firm step in this direction.
- **Technological Intervention for Cleaner Space:** Technologies like **self-eating rockets, self-**

vanishing satellites and robotic arms to catch space debris can make India an explorer cum problem solver in the space arena.

Source: BS

Genome India Project

For Prelims: Genome India Project, Human Genome Project, Genomes Mapping, Deoxyribonucleic acid.
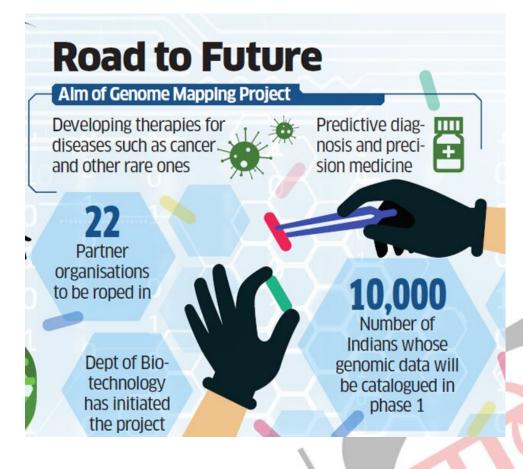
For Mains: Potential of Genome India Project in the fields of biotechnology, agriculture and healthcare.

Why in News?

Government aims to sequence 10,000 genomes by the end of the year 2023 under the **Genome India Project (GIP).**

- The Department of Biotechnology, Ministry of Science and Technology has sequenced close to 7,000 genomes and 3,000 of these are already available for public access.

//

Road to Future

Aim of Genome Mapping Project

Developing therapies for diseases such as cancer and other rare ones

Predictive diagnosis and precision medicine

22 Partner organisations to be roped in

Dept of Bio-technology has initiated the project

10,000 Number of Indians whose genomic data will be catalogued in phase 1

What is the Genome India Project?

- **Need:**
  - India's population of **1.3 billion is made up of over 4,600 diverse population groups**, many of which are endogamous (Matrimony in Close Ethnic Groups). These groups have **unique genetic variations and disease-causing mutations** that cannot be compared to other populations. By creating a database of Indian genomes, researchers can learn about these unique genetic variants and use the information to create personalized drugs and therapies. The **United Kingdom, China, and the United States** are among the countries that **have programmes to sequence at least 1,00,000 of their genomes.**
- **About:**
  - It is a scientific initiative inspired by the **Human Genome Project (HGP),** an international effort that successfully decoded the entire **human genome between 1990 and 2003.**
  - The project was started **in 2020,** aiming to **better understand the genetic variations and disease-causing mutations** specific to the Indian population, which is one of the most genetically diverse in the world.
  - By sequencing and analyzing these genomes, researchers hope to gain insights into the **underlying genetic causes of diseases and develop more effective personalized therapies.**
  - The project involves the collaboration of 20 institutions across India and is being **led by the Centre for Brain Research at the Indian Institute of Science** in Bangalore.

What is the Significance of the GIP?

- **Precision Healthcare:**
  - GIP aims to develop personalized medicine based on **patients' genomes to anticipate and modulate diseases.**
  - By mapping disease propensities to genetic variations, interventions can be targeted **more effectively, and diseases can be anticipated before they develop.**
    - For example, variations across genomes may explain **why cardiovascular**

disease leads to heart attacks in South Asians** but to strokes in most parts of Africa.
        - **Sustainable Agriculture:**
            - Similar benefits will come to agriculture if there is a better understanding of the **genetic basis of the susceptibility of plants to pests,** insects and other issues hampering productivity.
            - This can **reduce dependence** on chemicals.
        - **International Cooperation:**
            - Global science will also benefit from a **mapping project in one of the world's most diverse gene pools.**
            - The project is said to be among the most significant of its kind in the world because of its **scale and the diversity it would bring to genetic studies.**

What are the Challenges?

- **Scientific Racism:**
    - The GIP raises concerns about the **potential for scientific racism and the reinforcement of stereotypes** based on heredity and racial purity. Similar scientific studies in the past have been used to **justify slavery and other forms of discrimination.**
    - In a country like India, which is already divided by identity politics, genetic mapping may **further deepen these divisions.**
- **Data Privacy:**
    - The project also raises questions about **data privacy and storage.** In the absence of a comprehensive data privacy bill in India, concerns about the possible misuse of genetic information collected by the GIP cannot be overlooked.
- **Ethical Concerns:**
    - It raises ethical questions about the **potential for doctors to privately perform gene modification** or selective breeding.
    - Such practices have always been controversial, in 2020 there was sentencing of a scientist in China who **created the world's first gene-edited babies highlighting the seriousness** of these concerns.

What is a Genome?

- The discovery of the structure of DNA by Watson and Crick in 1953 marked the beginning of the **study of genetics, which seeks to understand how genes** influence **traits and diseases.**
    - [**DNA, or Deoxyribonucleic acid**](), is a molecule that carries the **genetic instructions for the development, functioning, growth, and reproduction** of all living organisms.
- The genome of an organism is the complete set of its genetic material, including all of its genes. It contains all the information required to build and maintain the organism.
- In humans, the genome is **composed of more than 3 billion DNA base pairs**, arranged in a double helix structure.
- The study of genomics, which involves the analysis of genomes, has revolutionized many fields, including **biotechnology, medicine, and agriculture, by providing new insights into the mechanisms of disease,** drug development, and the improvement of crops and livestock.

What is Genome Sequencing?

- Genome sequencing is figuring out the order of DNA nucleotides, or bases, in a genome—the order of adenine (A), thymine (T), cytosine (C), and guanine (G), that make up an organism's DNA.

Way Forward

- It is important that the GIP is conducted with adequate safeguards in place to ensure that the

project is conducted ethically and in a manner that respects individual privacy and human rights.
- The project has the potential to advance biotechnology, agriculture, and healthcare in India. However, **it should be approached with both speed and caution to ensure that privacy concerns** are addressed, potential misuse of data is prevented, and medical ethics are upheld.

[Source: TH](#)

Mission to Map Rural India's Cultural Assets

For Prelims: Mera Gaon Mera Dharohar, National Mission for Cultural Mapping

For Mains: Significance of Mera Gaon Mera Dharohar

Why in News?

In a bid to harness the unique cultural heritage of rural India, the government has identified and documented distinctive features of more than one lakh villages across the country.

- The entire exercise has been **carried out under the 'Mera Gaon Meri Dharohar'** (My Village My Heritage) programme of the **National Mission for Cultural Mapping (NMCM).**

What is the Mera Gaon Meri Dharohar Programme?

- **About Cultural Mapping:**
  - The process **involves identification and mapping** the cultural **assets and art repositories** of the nation i.e., **art expressions, crafts and skills, wisdom tradition** and other cultural practices whether **oral, aural, visual or kinetic.**
  - Information about the **ritual, social and economic status** of **artists** and **craftsmen** within the community is also of relevance and is to be noted during the cultural mapping.
- **Categories of Villages:**
  - Villages have been categorized into **seven to eight categories** based on **ecological, developmental, and historical significance**, as well as **cultural aspects** such as famous textiles or products or connected to some historical or mythological events such as the Independence struggle or epics like the Mahabharata.
  - **Ecological Category:**
    - **Bishnoi village** in Rajasthan is a case study for living in **harmony with nature.**
    - **Raini village**, which is famous for the **Chipko movement.**
  - **Developmental Importance:**
    - **Modhera** in Gujarat is the **first solar-powered village** in India.
  - **Historical Villages:**
    - **Kandel** in Madhya Pradesh, the site of the famous **"Jal Satyagraha".**
    - **Hanol** in Uttarakhand and **Vidurashwathar** of Karnataka, which are linked to the **Mahabharata.**
    - **Suketi** in Himachal Pradesh, **Asia's oldest fossil park.**
    - **Pandrethan in Kashmir,** the village of Shaivite mystic Lal Ded
- **Survey Process:**
  - The cultural asset mapping of villages was **carried out through field surveys** by joint teams of the Ministry of Culture and the **Common Services Centres (CSC), Ministry of Electronics and Information Technology.**
  - Citizens were involved in sharing what makes their village, block, or district unique.
  - The survey process involved a CSC **Village Level Entrepreneur (VLE)** conducting meetings with locals and uploading interesting facts about their village on a special application.
- **Future Plans:**
  - The Indira Gandhi National Centre for Arts plans to cover all 6.5 lakh villages in the country and **create special films on 6,500 village** clusters showcasing their unique heritage.
    - **Short films** have been made on **750 cluster villages** using drones.
  - The detailed dossiers on these villages, as well as the films, will be made available on a **web portal** called **"The National Cultural Work Place".**
  - The web portal will contain a **virtual living museum** of all villages documented and a facility for uploading a village through crowd-sourcing and allowing villagers to edit and upload village data themselves.

What is National Mission for Cultural Mapping?

- The NMCM was launched by the Ministry of Culture in 2017 to develop a comprehensive database of art forms, artists, and other resources across the country.
- The programme got off to a slow start and was handed over to the Indira Gandhi National Centre for Arts (IGNCA) in 2021.
- The budget approved for the mission was ₹469 crore for a period of three years.

Great Nicobar Island Project

For Prelims: National Green Tribunal (NGT), Great Nicobar Island, Coastal Regulation Zones, Turtles, Dolphins, Particularly Vulnerable Tribal Groups (PVTGs), Mangroves, Great Nicobar Biosphere Reserve.

For Mains: Significance and Issues Related to Great Nicobar Island Project.

Why in News?

The **National Green Tribunal (NGT)** has issued a stay on the Great Nicobar Island **project** worth **₹72,000** crore and created a committee to review the environmental clearance granted by the **Ministry of Environment, Forest and Climate Change.**

What is the Great Nicobar Island Project?

- **About:**
    - The **Great Nicobar Island (GNI)** Project is a mega project to be implemented at the southern end of the **Andaman and Nicobar islands.**
    - The project includes an **international container** transshipment terminal**, a greenfield international airport, township development,** and a **450 MVA gas and** solar based power plant over an extent of 16,610 hectares in the island.
- **Purpose:**
    - **Economic Reasons:**
        - As per the NITI Aayog **report,** the proposed port will allow Great Nicobar to **participate in the regional and** global maritime economy **by becoming a major player in cargo transshipment.**
            - It is **equidistant from Colombo to the southwest and Port Klang (Malaysia) and Singapore to the southeast, and positioned close to the East-West international shipping corridor,** through which a very large part of the world's shipping trade passes.
    - **Strategic Reasons:**
        - The proposal to develop Great Nicobar was first floated in the **1970s**, and its importance for national security and consolidation of the **Indian Ocean Region** has been repeatedly underlined.
        - Increasing **Chinese assertion in the Indian Ocean** has added **great urgency to this imperative in recent years.**
- **Criticism:**
    - **Impact on Biodiversity:**
        - The project has faced several criticism citing concerns regarding its adverse impact on the **rich biodiversity of the area** and damage to the habitats of endangered species.
            - The project area is part of **Coastal Regulation Zones**-**IA and IB**, and the Galathea bay which is a nesting ground for birds.
            - Also, **turtle nesting sites,** dolphins **and other species** will be harmed by **dredging.**
    - **Impact on Tree Cover and Mangroves:**
        - **Environmentalists** have also flagged the **loss of tree cover and** mangroves on

the island as a result of the development project.
- The **loss of tree cover will not only affect the flora and fauna on the island**, it will also lead to **increased runoff and sediment deposits** in the ocean, impacting the coral reefs in the area.
- **Lack of Adequate Assessment:**
    - Critics claimed that **only one season data has been taken**, as opposed to the **requirement of taking data for three seasons for comprehensive impact assessment,** environmental impact assessment reports were not conducted as per **Terms of Reference (ToR).**
- **Encroachment in Tribal Space:**
    - Critics argue that while **Particularly Vulnerable Tribal Groups (PVTGs)** are accorded the highest level of protection by local administration, **they still face numerous challenges due to encroachment into their areas in the name of development.**

Great Nicobar

- **About:**
    - Great Nicobar is the **southernmost island of the Nicobar Islands Archipelago.**
        - It covers 1,03,870 hectares of unique and threatened tropical **evergreen forest ecosystems.**
    - It is home to a **very rich ecosystem, including 650 species of angiosperms**, ferns, gymnosperms, bryophytes, among others.
        - In terms of fauna, there are over **1800 species,** some of which are **endemic to this area.**
- **Ecological Characteristics:**
    - The **Great Nicobar Biosphere Reserve** harbours a wide spectrum of ecosystems comprising **tropical wet evergreen forests, mountain ranges** reaching a height of 642 m (Mt. Thullier) above sea level, and coastal plains.
- **Tribe:**
    - The **Mongoloid Shompen Tribe,** about 200 in number, live in the forests of the biosphere reserve particularly along the rivers and streams.
        - They are **hunters and food gatherers,** dependent on forest and marine resources for sustenance.
    - Another Mongoloid Tribe, **Nicobarese,** about 300 in number, used to live in settlements along the west coast.
        - After the tsunami in 2004, which devastated their settlement on the western coast, **they were relocated to Afra Bay in the North Coast and Campbell Bay.**

Conclusion

- The NGT's order to stay the Great Nicobar Island project and constitute a committee to review the environmental clearance aims to ensure that the project is **compliant with the** Island Coastal Regulation Zone 2019 **and** tribal rights.

4. Sunderbans

Select the correct answer using the code given below:

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

Ans: (a)

Q3. In which one of the following places is the Shompen tribe found? (2009)

(a) Nilgiri Hills
(b) Nicobar Islands
(c) Spiti Valley
(d) Lakshadweep Islands

Ans: (b)

Source: TH

Northeast Top Tourist Destination in 2022

For Prelims: National Parks, Temples, Monastery, lakes etc. of Northeast and their Location.

For Mains: Conservation efforts, Destination Northeast, Significance of Northeast

Why in News?

The year 2022 witnessed record-breaking tourism in the **Northeast Region** having **over 11.8 million domestic visitors** and over 100,000 international travelers.

Why Record-Breaking Tourism in the Northeast?

- The Northeast region of India has **a rich cultural heritage and is home to diverse landscapes, including hills, mountains, and valleys.**
- The region has been relatively unexplored, but with the recent surge in tourism, more people are discovering the beauty and charm of the Northeast.
- It is the result of Government of India's **Destination Northeast India** initiative massive infrastructural push.

What are the Top Destinations?

- **Arunachal Pradesh:**
  - **Tawang Monastery:** One of the oldest and largest Buddhist monasteries in India.
  - **Namdapha National Park:** Home to diverse flora and fauna, including tigers, flying squirrel and leopards.
- **Assam:**
  - **Kamakhya Temple**: A revered Hindu temple dedicated to the goddess Kamakhya.
  - **Kaziranga National Park:** A **UNESCO World Heritage site** and home to the one-horned rhinoceros.
  - **Majuli Island:** Located in the Brahmaputra River, is the largest river island in the world and a cultural hub in Northeast India.
- **Manipur:**
  - **Loktak Lake**: The largest freshwater lake in Northeast India and home to the floating **Keibul Lamjao National Park.**
  - Imphal War Cemetery: A significant religious site for those who lost their lives in the **Second World War.**
- **Meghalaya:**
  - Nohkalikai Falls: The tallest plunge waterfall in India.
  - **Living Root Bridges:** A unique natural wonder created by the Khasi and Jaintia tribes.
- **Mizoram:**
  - **Phawngpui National Park:** Home to the highest peak in Mizoram and diverse flora and fauna.
  - Solomon's Temple: A unique religious site built by a local pastor, resembling the biblical Temple of Solomon.
- **Nagaland:**
  - **Hornbill Festival:** The festival is named after the hornbill bird, which is revered by the Naga tribes as a symbol of their folklore and tradition.
  - **Dzukou Valley:** A picturesque valley known for its stunning landscapes and diverse flora and fauna. Treeless but unbelievably green and floral.
- **Sikkim:**
  - **Tsomgo Lake:** A sacred lake considered by local people, it is believed that the water of

the lake has medicinal properties. Lake is surrounded by snow-capped mountains and is fed by the melting snow from the mountains
  - **Rumtek Monastery:** A prominent Buddhist monastery and the largest in Sikkim.
- **Tripura:**
  - **Neermahal Palace:** A unique palace located in the middle of Rudrasagar Lake, a unique example of a fusion of Hindu and Islamic architectural styles. The palace is designed in the shape of a half-moon and is surrounded by water on three sides.
  - **Unakoti:** A significant religious site featuring **rock-cut sculptures** and **carvings.** The largest sculpture at Unakoti is a **30-foot-high image of Lord Shiva,** known as **Unakotiswara Kal Bhairava**. The site also features several waterfalls and natural rock formations.

What are the Prospects of Tourism in North East India?

- **Adventure Tourism:** The Northeast region offers numerous adventure tourism opportunities, including trekking, mountaineering, river rafting, and paragliding.
  - Adventurous sites such as Gangtok, Shillong etc. can attract adventure enthusiasts from all over the world.
- **Tribal Communities:** The Northeast is home to several indigenous tribal communities such as **Mismi, Garo, Khasi, Jaintia** etc., each with their **unique culture, language, and traditions.**
  - Tourism can provide an opportunity for these communities to showcase their heritage and generate income.
- **Winter Tourism:** The Northeast region **experiences heavy snowfall** during the winter months, making it an **ideal destination** for winter tourism.
  - However, this season remains relatively unexplored and has the potential for further development.
- **Sustainable Tourism:** To minimize the negative impact of tourism, sustainable tourism practices should be promoted. This includes responsible waste management, promoting eco-friendly accommodations, and respecting the cultural practices of local communities

What are the Benefits and Concern of Tourism in North East India?

- **Benefits**
  - Tourism has the potential to **create jobs, generate income,** and boost the **local economy.**
  - As more tourists visit the region, there will be a higher demand for goods and services, leading to the growth of various sectors.
- **Challenges:**
  - **Environmental Impact:** Increased tourism can lead to **increased pollution, littering, and damage to natural habitats,** which can have long-term negative impacts on the environment and wildlife.
  - **Cultural Impact:** Tourism **can lead to changes in traditional cultural practices and beliefs,** as well as the commodification of cultural artifacts and practices, which can erode the cultural heritage of local communities.
  - **Connectivity:** Despite recent infrastructural development, the Northeast still faces connectivity challenges. Better road and air connectivity can help attract more tourists to the region.

Way Forward

- To boost tourism in North East India, **effective marketing campaigns** should be developed to promote the region's attractions, culture, and heritage.
- **Infrastructure development** and **diversifying tourism** offerings can attract more tourists, while sustainable tourism practices should be promoted to protect the environment and local culture.
- **Encouraging community-based tourism** and **public-private partnerships** can also help generate income and improve services.

Source: PIB

Countries Regulating on AI and Chatbots

For Prelims: Countries Banned Chat GPT, Generative Artificial Intelligence, National Strategy for Artificial Intelligence.

For Mains: Issues Associated with AI models, Countries Regulating AI and Chatbots.

Why in News?

Italy has recently banned ChatGPT **due to concerns over the collection of** personal data **and the lack of guardrails to prevent minors from accessing the AI chatbot.**

What are the Other Countries Regulating AI and Chatbots?

- **India:**
  - **NITI Aayog**, has issued some guiding documents on AI Issued such as the **National Strategy for Artificial Intelligence and the** Responsible AI for All report.
  - Emphasises **social and economic inclusion, innovation, and trustworthiness.**
- **European Union:**
  - Proposed legislation called the **European AI Act** to introduce a common regulatory framework for AI.
    - The AI Act will also work in tandem with other laws such as the **General Data Protection Regulation (GDPR).**
  - **Classifies different AI tools according to perceived risk level** and imposes different obligations and transparency requirements.
  - **May include ChatGPT under the General Purpose AI Systems** category, which describes tools that can perform multiple functions.
- **United Kingdom:**
  - Outlined a **light-touch approach**, asking regulators in different sectors to apply existing regulations to AI.
  - Published a **white paper outlining five principles companies should follow**: safety, security and robustness; transparency and explainability; fairness; accountability and governance; and contestability and redress.
- **China:**
  - While **China hasn't officially blocked ChatGPT,** OpenAI does not allow users to sign up for the chatbot in the country.
    - OpenAI also blocks users from other countries with heavy internet censorship such as **Russia, North Korea, Egypt, Iran, Ukraine,** and a few more.

Note: Till yet, US doesn't have comprehensive federal legislation on AI and Chatbot yet.

What are the Concerns Related to Rising AI Software and Chatbots?

- **Privacy:**
  - Training AI models requires **access to large amounts of data, which could include personal and sensitive information.**
    - There is a risk that this **data could be used for unethical purposes,** such as for targeted advertising or for political manipulation.
- **Responsibility:**
  - Since **AI models can generate new content, such as images, audio, or text it may be used to generate fake news or other malicious content**, without knowing who is responsible for the output.
    - This could lead to **ethical dilemmas over responsibility.**
- **Automation and Lowering Job:**
  - **AI has the potential to automate many processes**, which could lead to **job displacement for people who are skilled in those areas.**
    - This **raises questions about the ethics of using AI for** job displacement and the potential impact on workers and society.

Conclusion

Regulations and standards must be put in place to ensure that AI models are used in a **responsible and ethical manner.** AI models are **only as good as the data they are trained on**, so it is important to ensure that the **data used for training AI models is ethical and unbiased.** This includes **ensuring that the data used for training is collected and used in a way that respects the** privacy of individuals and does not reinforce existing biases.

Source: IE

World Health Day 2023

Why in News?

Every Year on 7th April World Health Day is celebrated. The date of 7 April marks the anniversary of the founding of **World Health Organisation** in 1948.

What are the Key Highlights of World Health Day?

- **About:**
  - The idea of World Health Day was conceived at the First Health Assembly in **1948** and it came into effect in 1950.
  - It is celebrated annually and each year it draws attention to a specific health topic of concern to people all over the world.
- **Theme for 2023:**
  - **Health for All**
- **India on World Health Day:**
  - To mark the occasion of World Health Day on April 7, a health camp and a flash mob was organized to create awareness on **non-communicable diseases (NCD)** among the public.
- **Importance:**
  - World Health Day aims to raise awareness about global health issues, **promote health equity by addressing disparities,** encourage collaboration among stakeholders, and **highlight progress in improving health outcomes worldwide**. This includes educating people on the importance of good health, providing access to healthcare services, and **reducing the burden of diseases in disadvantaged communities and low- and middle-income countries.**

What is World Health Organization?

- **About:**
  - United Nations' specialized agency for Health was founded in 1948.
  - Its headquarters are situated in Geneva, Switzerland.
  - There are 194 Member States, 150 country offices, six regional offices.
  - It is an inter-governmental organization and works in collaboration with its member states usually through the Ministries of Health.
- **Objectives:**
  - To act as the directing and coordinating authority on international health work.
  - To establish and maintain effective collaboration with the United Nations, specialized agencies, governmental health administrations, professional groups and such other organizations as may be deemed appropriate.
  - To provide assistance to the Governments, upon request, in strengthening health services.
  - To promote cooperation among scientific and professional groups which contribute to the advancement of health.
- **Governance:**
  - **World Health Assembly (WHA)**
    - WHA is WHO's decision-making body attended by delegations from all of WHO's member states,
    - It is held yearly at Geneva, Switzerland.
    - Specific health agenda prepared by the Executive Board remains the focus of this assembly.
- **Reports:** World Health Statistics, World Health Report, Global Tuberculosis Report, Global Health

Observatory (GHO) data, Global Hepatitis Report, Global Report on Diabetes, Global Status Report on Alcohol and Health etc.,

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Rapid Fire Current Affairs

Short-Beaked Echidnas Strategy to Beat the Heat

Short-beaked echidnas living in the **Dryandra Woodland in Western Australia** use a unique method to beat the searing heat during the summer. Since **they cannot pant** (breathe with short, quick breaths, typically from exertion or excitement) **like dogs** or **sweat like humans,** they use **their quills to regulate their body temperature.**

By slicking back their two-inch-long spines, they **trap warmth**, while raising them allows heat to escape. Another strategy is to **rest inside hollow logs**, where the **air temperature can exceed 40oC.**

However, researchers found that **blowing snot bubbles can help the echidnas cool down.** Their **snouts are covered in electroreceptors** that detect underground prey but only work when moist. When the animal blows **mucus balloons** that burst over its nose, **evaporation cools the blood vessels inside the snout,** reducing the body temperature.

Echidnas are the **egg-laying mammal** (Monotremes).

Read more: Short-beaked echidnas

'Ex KAVACH'

The **Andaman and Nicobar Command (ANC)** recently concluded a two-month-long joint **military exercise named** 'Ex KAVACH.' The exercise involved the assets of the **Army, Navy, Air Force, and** Coast Guard and aimed at fine-tuning joint warfare capabilities and enhancing interoperability and operational synergy between the forces.

It involved **amphibious landing, air-landed operations,** heliborne operations**, and rapid insertion of the Special Forces on a remote Island** of the Andaman and Nicobar Islands.

Read more: Ex KAVACH**,** Andaman and Nicobar Command (ANC)

Rare-Earth elements in Andhra Pradesh

Scientists at the National Geophysical Research Institute **(NGRI)** have found rare-earth elements (REEs) **in Anantapur district, Andhra Pradesh.**

REEs consist of a group of **17 chemical elements,** including the **15 lanthanides:** lanthanum (La), cerium (Ce), praseodymium (Pr), neodymium (Nd), promethium (Pm), samarium (Sm), europium (Eu), gadolinium (Gd), terbium (Tb), dysprosium (Dy), holmium (Ho), erbium (Er), thulium (Tm), ytterbium (Yb), lutetium (Lu), and two additional elements: scandium (Sc) and yttrium (Y).

They are particularly important for making **permanent magnets used in modern** electronic devices such as **smartphones, computers, and jet aircraft.**

Read more: Rare-earth elements (REEs)

President Murmu's Maiden Sortie in Sukhoi-30 MKI

President Droupadi Murmu recently went on a 30-minute flight in a **Sukhoi-30 MKI** fighter aircraft from **Tezpur Air Force Station in Assam.** She is the **third president and second woman president** (first- Former President Pratibha Patil) to fly such a sortie.

Tezpur Air Force Station is a vital IAF airbase near China, it has **fighter** squadrons**, a helicopter unit** and **radar** and **missile** squadrons.

The President's sortie in the Sukhoi 30 MKI fighter aircraft is a part of engagement with the armed forces as the **Supreme Commander of Indian Armed Forces.**

The Sukhoi-30 MKI is a **multirole combat aircraft developed by Russia's Sukhoi** and licensed produced by India's Hindustan Aeronautics Limited (HAL). It is one of the most advanced fighter jets in the Indian Air Force (IAF) and is used for **air superiority, air-to-ground attack, and air-to-air refueling missions.**

Read more: Sukhoi-30 MKI**,** Supreme Commander of Indian Armed Forces.