Global Environment Facility (GEF) approves Global Biodiversity Framework Fund (GBFF)

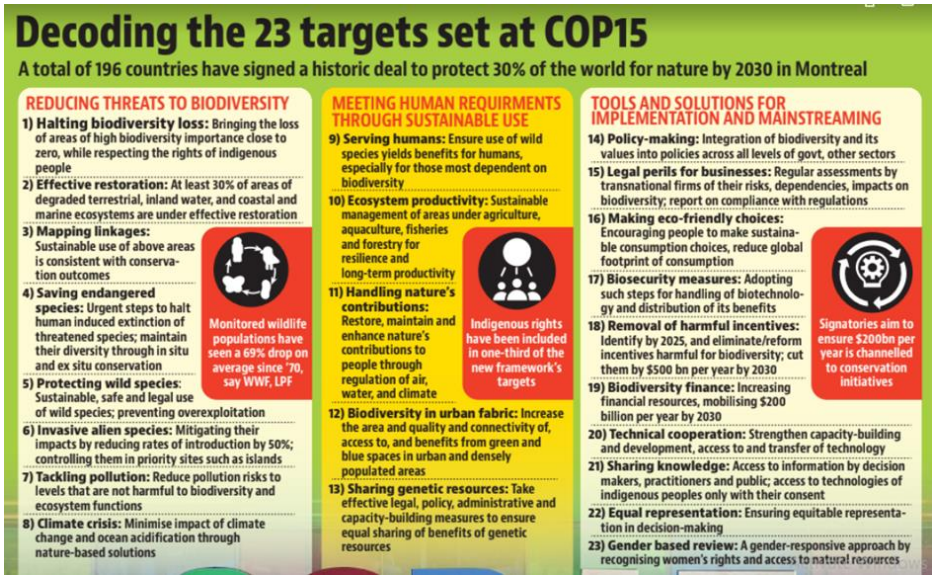
Context: The members of the GEF Council reached a consensus on the creation of a fresh trust fund known as the Global Biodiversity Framework Fund, along with the programming directions to guide its activities.

Key Highlights

- The 64th governing board of the Global Environment Facility (GEF) has approved the establishment of the Global Biodiversity Framework Fund to finance the implementation of the Kunming-Montreal Global Biodiversity Framework.
- Nearly 50% of GEF's funds will be allocated to biodiversity-related work during the GEF-8 period, with $1.4 billion provided for environmental protection efforts.
- The approval allows the Global Biodiversity Framework Fund (GBFF) to be ratified by member countries' environment and finance ministers at the Seventh GEF Assembly in August.
- The creation of the GBFF is seen as a significant development for countries' ability to protect and restore nature sustainably.
- Discussions during the council meeting resolved disagreements on financing, including resource allocation for least developed countries (LDCs) and small island developing states (SIDS).
- The proposed fund allocations include 20% for Indigenous Peoples and local communities (IPLCs), 25% for GEF agencies, 36% for SIDS, and 3% for LDCs, subject to reviews after ratification.
- The consideration given to IPLCs and their role as biodiversity stewards was welcomed, along with the commitment to support their actions based on their priorities.
- The establishment of the GBFF is a crucial test for the effectiveness of the Global Biodiversity Framework.
- In addition, the council members agreed to support a new agreement under the United Nations Convention on the Law of the Sea for the conservation and sustainable use of marine biological diversity in areas beyond national jurisdiction.

Kunming-Montreal Global Biodiversity Framework

- The 15th Conference of Parties (COP15) to the UN Convention on Biological Diversity adopted the "Kunming-Montreal Global Biodiversity Framework" (GBF).
- The GBF consists of four goals and 23 targets that are to be achieved by 2030.
- COP15 took place in Montreal, Canada.
- The GBF aims to protect 30 percent of the planet by 2030.
- Countries pledged to work towards achieving 23 targets under four overarching goals to reverse ecosystem degradation and ensure the survival of the natural world.
- The GBF also includes a commitment to reduce harmful government subsidies amounting to 500 billion dollars annually, along with identifying subsidies harmful to biodiversity by 2025.
- Other targets of the GBF include a 50 percent reduction in pesticide use and increasing annual international financial flows from developed to developing countries to at least 20 billion dollars by 2025 and 30 billion dollars by 2030.



Census of India

Context: The Census enumeration, originally planned for 2021, has been postponed until further orders and rescheduled to take place in 2024-25.

What is Census?

- A population census involves collecting, evaluating, and sharing demographic, economic, and social data about all individuals in a country or specific region.
- It provides statistics on demographics, social aspects, and economic indicators at a given time.
- The Indian Census is a massive administrative undertaking and is one of the largest in the world.
- The Ministry of Home Affairs Office of the Registrar General and Census Commissioner is responsible for conducting the census every decade.

History of Census in India

- **Census in Ancient and Medieval India:**
  - Rig-Veda, dating back to 800-600 BC, indicates the maintenance of population count.
  - 'Arthashastra' by 'Kautilya' in the 3rd Century BC recommended population statistics collection for taxation.
  - 'Arthashastra' included methods for conducting population, economic, and agricultural censuses.
  - 'Ain-e-Akbari' during Mughal rule provided comprehensive data on population, industry, and wealth.
- **Census in Modern India:**
  - **First Complete Census (1830):**
    - The first complete census of India was conducted in 1830 by Henry Walter in Dacca (now Dhaka), which was a part of India at that time.
    - It collected statistics on population, including sex, broad age groups, and information about houses and their amenities.

- **Second Census (1836-37):**
  - The second census was conducted in 1836-37 by Fort St. George.
  - It aimed to gather population data, but specific details about its methodology and coverage are limited.
- **Non-synchronous Censuses (1865-1872):**
  - Between 1865 and 1872, non-synchronous censuses were conducted in different parts of India.
  - This period of census activity, culminating in 1872, is often referred to as the first population census of India under British Viceroy Lord Mayo.
- **First Synchronous Census (1881):**
  - The first synchronous census in India was held in 1881 under the supervision of W.C. Plowden, the Census Commissioner of India.
  - The main objective of this census was not only to ensure complete coverage but also to classify demographic, economic, and social characteristics.
  - The census covered the entire continent of British India, excluding Kashmir.
- **Regular Decennial Censuses:**
  - Since 1881, censuses have been conducted uninterruptedly once every ten years.
  - The decennial census provides comprehensive data on the population and its characteristics.
  - It serves as a vital tool for understanding various aspects of Indian society, such as demographics, education, employment, housing, and more.

Who conducts Census?

- The census in modern India is conducted by the Registrar General and Census Commissioner of India operating under Ministry of Home Affairs.
- All censuses since 1951 have been conducted under the 1948 Census of India Act.
- The most recent census took place in 2011, and the upcoming census is scheduled for 2024, which was to be held in 2021.

Just Energy Transition Partnership (JETP) deal

Context: Recently, Senegal signed the Just Energy Transition Partnership deal.

- Senegal has become the fourth country to sign the JET-P deal after South Africa, Indonesia, and Vietnam.
- The deal was announced on June 22, 2023.
- This financing will be mobilized over an initial period of 3-5 years.

What is JETP?

- The Just Energy Transition Partnership (JETP) aims to accelerate the phase-out of coal and reduce emissions.
- It focuses on supporting South Africa's decarbonization efforts as a model country.
- The initiative provides funding options for identified developing countries to facilitate their transition.
- JETP was launched at COP26 with support from the UK, US, France, Germany, and the EU.
- The G7 has also announced a similar partnership for India, Indonesia, Senegal, and Vietnam.
- India argues for equal terms in energy transition discussions, stating that coal should not be singled out as a polluting fuel.

India's Stand

- India has taken a firm stance and declined to discuss "coal phase-out" as part of the negotiations, emphasizing the need to design its own "transition plan."
- The talks on the Just Energy Transition Partnership (JETP) have encountered obstacles due to divergent approaches regarding coal.
- The United States advocates for including coal phase-out in the discussions.
- In contrast, India is prioritizing climate funds for renewable energy, technology transfer, and the creation of green jobs.

India's focus is on accessing support and resources to facilitate its transition to cleaner energy sources.

PM-PRANAM Scheme

Context: The PM-PRANAM scheme, aimed at nurturing and restoring Mother Earth through biofertilizers, has been approved by the Cabinet Committee on Economic Affairs (CCEA).

About the Scheme

- PM-PRANAM stands for PM Programme for Restoration, Awareness, Nourishment and Amelioration of Mother Earth.
- The scheme was first announced in the 2023-24 Budget by the Union government.
- The scheme aims to encourage the balanced use of fertilizers in conjunction with biofertilizers and organic fertilizers.
- It seeks to reduce the subsidy burden on chemical fertilizers, which amounted to around Rs 2.25 lakh crores in 2022-2023.

Key Features of the Scheme:

- **Financing:**
  - PM-PRANAM Scheme will be financed through savings from existing fertilizer subsidies.
  - No separate budget will be allocated for the PM-PRANAM scheme.
- **Subsidy Savings and Grants:**
  - The Centre will provide 50% of the subsidy savings to states as a grant.
  - 70% of the grant can be used for creating assets related to the adoption of alternative fertilizers and production units.
  - The remaining 30% can be used to incentivize farmers, panchayats, and other stakeholders involved in fertilizer reduction and awareness generation.
- **Calculation of Fertilizer Reduction:**
  - The reduction in urea consumption by a state will be compared to its average consumption of urea over the previous three years.
  - This calculation will determine the eligibility for subsidy savings and grants.
- **Promotion of Sustainable Agriculture:**
  - Encouraging the use of biofertilizers and organic fertilizers will promote sustainable agricultural practices.
  - It will enhance soil fertility, reduce environmental pollution, and support long-term agricultural productivity.

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NEWS IN BETWEEN THE LINES

Pangong Lake

Context:

Recently, India and China have been undertaking infrastructure projects on the north bank of Pangong Lake, located in eastern Ladakh and western Tibet.

Pnagong Lake:

Pangong Tso, known as the "conclave lake," is formed from the geological feature called the Tethys geosyncline. It is located at a very high altitude of over 14,000 feet.

Geographical Location:

- The northern bank of Pangong Tso marks the end of the Karakoram Mountain range.
- The Karakoram range extends across Tajikistan, Afghanistan, Pakistan, China, and India, featuring tall peaks such as K2, the world's second-highest peak.
- On the southern bank of Pangong Tso, rugged mountains slope down towards another lake called Spangur Lake.

Water Characteristics:

- Despite its crystal-clear appearance, the water of Pangong Tso is brackish, meaning it has a salty or saline taste.
- Due to its brackish nature, the water is not suitable for drinking purposes.

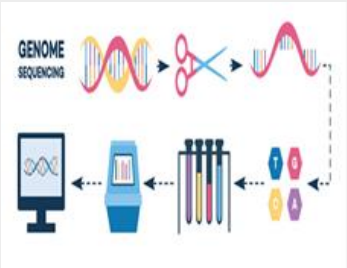
Geographical Distinction:

Pangong Tso is not connected to the Indus River basin and is considered a separate landlocked river basin.

Recognition as a Wetland:

Although it has not been officially designated as a Ramsar site yet, efforts are underway to recognize Pangong Tso as a wetland of international importance under the Ramsar Convention.

Genome Sequencing



Context:

Recently, Genomic sequencing has recently garnered attention in India and across the globe due to its significant potential in improving healthcare outcomes for infants.

What is Genome Sequencing?

Genome sequencing is the process that involves deciphering the exact order of base pairs in an individual. It provides a comprehensive map of an individual's genetic material including all the genes, non-coding regions and repetitive sequences present in their DNA.

Need for Genome Sequencing:

- The sequencing of the human genome in 2003 provided valuable insights into the relationship between diseases and an individual's unique genetic makeup.
- Many diseases, such as cystic fibrosis and thalassemia are caused by the malfunctioning of a single gene.
- Genome sequencing has revealed that cancer can be understood from a genetic perspective, going beyond being viewed as a disease of specific organs.

India's Efforts towards Genome Sequencing:

- The Centre for Scientific and Industrial Research (CSIR) has conducted whole genome sequencing of the novel coronavirus.
- The IndiGen Genome project, initiated by CSIR, aims to enable genetic epidemiology and develop public health technologies using population genome data.

Screening Healthy Babies:

Sequencing can also benefit apparently healthy babies by uncovering potential genetic risks, leading to better medical surveillance and targeted interventions.

Nano Urea

Context:

Recently, the Chemical and Fertilizer Ministry announced plans to establish nine Nano Urea plants across the country by 2025.

Objective:

- The establishment of nine Nano Urea plants is part of a larger goal to achieve self-reliance in urea production and reduce dependence on imports.
- The ministry aims to produce 44 crore bottles of Nano Urea by that year.

What is Nano Urea:

- Nano Urea is an advanced agricultural input based on nanotechnology that provides nitrogen to plants.
- It has been developed and patented by the Indian Farmers Fertiliser Cooperative Limited (IFFCO).
- IFFCO Nano Urea is the only nano fertilizer approved by the Government of India and included in the Fertilizer Control Order (FCO).

Features:

- Nano Urea has a particle size of 20-50 nm, significantly smaller than conventional urea prills, resulting in a larger surface area and a greater number of nitrogen particles.
- It contains 4.0% total nitrogen (w/v).

Merits of Nano Urea:

- Nano Urea boasts a higher absorption rate of 80% by crops, compared to the traditional urea's absorption rate of only 30%.
- It is cost-effective and has demonstrated an increase in crop yield.
- The production process of Nano Urea is energy-efficient, environmentally friendly and leaves a smaller carbon footprint.
- It offers easier storage compared to traditional urea bags.

Aspartame

Context:

Recently, The World Health Organization's (WHO) declared that Aspartame is potentially carcinogenic to humans, another artificial sweetener has come under scrutiny for its potential to cause DNA and gut damage.

What is Aspartame?

- Aspartame is an artificial sweetener widely used as a sugar substitute in variou s food and beverage products.
- It is composed of two amino acids, phenylalanine and aspartic acid, combined with a small amount of methanol.

Intensity of sweetness:

Aspartame is approximately 200 times sweeter than sugar.

Common usage:

Aspartame is used as a sugar substitute in various food and beverage products including diet sodas, chewing gum and low-calorie or sugar-free items.

Safety Evaluations:

Regulatory authorities, such as the U.S. Food and Drug Administration (FDA) and the European Food Safety Authority (EFSA), have conducted extensive studies and evaluations to determine the safety of aspartame.

Perceived Health Risks:

Some individuals may experience side effects such as headaches, cancer, dizziness, or gastrointestinal discomfort after consuming aspartame.

Philippines

Context:

Recently, India and the Philippines have held discussions to explore opportunities for strengthening their defense cooperation, with a specific focus on maritime security.

Geographical Location:

The country can be broadly divided into three main geographical divisions:

1. Luzon, Visayas, and
2. Mindanao.

Luzon, the largest island, is situated in the northern part and is where the capital city of Manila is located. Visayas forms a central group of islands and Mindanao is positioned as the southernmost region.

Mountain Ranges:

The Sierra Madre range runs along the eastern coast of Luzon, while the Cordillera Central is situated in northern Luzon. The Zambales and Bicol Mountain ranges are also significant.

Volcanoes:

The country is known for its active volcanoes. Mount Mayon in Luzon, Mount Taal in Batangas and Mount Apo in Mindanao are prominent volcanic peaks.

River Systems:

The Philippines has numerous rivers such as the Cagayan River, Agusan River and Pampanga River which are vital for water resources, flood control and irrigation management.