DAILY CURRENT AFFAIRS 21-11-2024

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Barak River

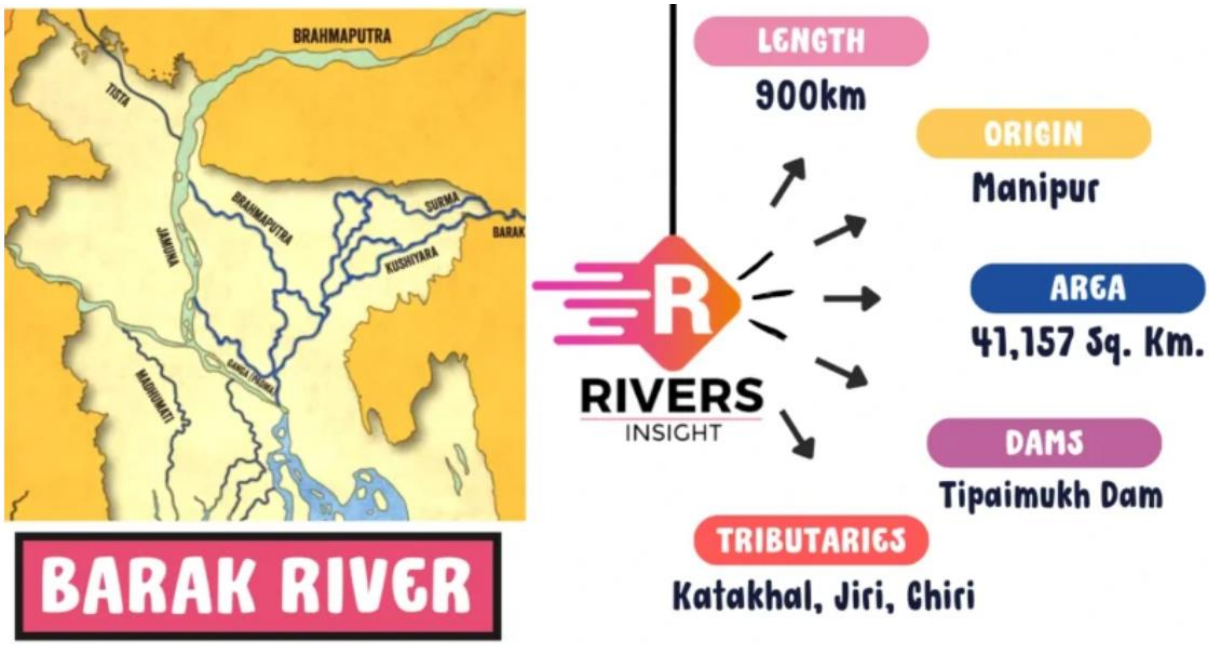
Syllabus: GS-1; Geography- Rivers of India

Context

- Manipur: Two more bodies found in Barak River

Location and Origin

- The Barak River originates in the **Himalayan ranges** in the **Mizoram** state of India.
- It flows through the states of **Mizoram, Manipur, Assam**, and enters **Bangladesh**.



Course of the River

- The river starts from the **Lushai Hills** (also called the **Chin Hills** in Myanmar).
- It flows through the **Imphal Valley** in Manipur and continues into Assam.
- The Barak finally enters **Bangladesh**, where it merges with the **Surma River**.

Tributaries

- The Barak River has several tributaries that contribute to its flow:
  - **Jiri River** (from Manipur)
  - **Tlawng River** (from Mizoram)
  - **Kangrai River**
  - **Kongchung River**

Length and Basin

- The total length of the Barak River is about **900 km**.
- It forms the major river system in the **Barak Valley** in southern Assam.
- The **Barak Valley** is an important agricultural region, primarily growing **rice, tea, and jute**.

Economic Importance

- The river is vital for irrigation and agricultural activities in the **Barak Valley** region.
- It is used for **transportation**, especially during the monsoon season, when it is navigable for boats and small vessels.
- The **Barak Valley** is home to significant tea estates that rely on the river's water for irrigation.

Environmental Significance

- The Barak River basin is ecologically rich and supports a diverse range of flora and fauna.
- It is home to several species of fish and aquatic life, contributing to the local economy through fishing.
- The river basin is prone to **flooding** during the monsoon season, which affects agricultural productivity and local communities.

Confluence with Surma River

- After flowing through Assam, the Barak River enters Bangladesh and merges with the **Surma River** to form the **Meghna River**. The Meghna River, along with the Barak and Surma, is one of the major river systems in Bangladesh.

Important Cities and Regions along the River

- **Silchar**, the district headquarters of Cachar in Assam, is an important city along the Barak River.
- The river plays a central role in the local economy of **Barak Valley**, which includes the districts of **Cachar, Karimganj, and Hailakandi** in Assam.

Floods and Challenges

- The Barak River and its tributaries are prone to frequent **flooding**, particularly in Assam, during the monsoon season.

- Flood control measures have been a priority in the region, with embankments and flood protection infrastructure being regularly maintained.

International Aspect

- The river's course through Bangladesh gives it international significance, particularly in terms of water sharing between India and Bangladesh.
- Management of the Barak River's waters, especially during the rainy season, is crucial for maintaining good relations between the two countries.

Silofar Panchamrit Kalash

Syllabus: GS-1; Art & Culture

Context

- PM Modi presented Nigerian President Bola Ahmed Tinubu with a distinctive Silofar Panchamrit Kalash (Pot), a display of the exquisite artisanal heritage of Kolhapur, Maharashtra.

About

- The **Silofar Panchamrit Kalash** is a traditional metalwork artifact originating from **Kolhapur, Maharashtra**. Renowned for its intricate craftsmanship and cultural significance, it exemplifies the rich artisanal heritage of the region. Below are the key details about this unique creation:

Meaning and Cultural Significance

- **Panchamrit** refers to a sacred mixture of five substances – milk, curd, ghee, honey, and sugar – used in Hindu rituals. The **Kalash (pot)** symbolizes purity and divinity in Indian culture.
- It is an essential part of **religious ceremonies and traditional rituals**, representing prosperity and sanctity.

Artisanal Craftsmanship

- The **Silofar Panchamrit Kalash** is crafted using **traditional metalworking techniques** like embossing and engraving.
- It showcases **intricate designs** inspired by nature, mythological motifs, and geometric patterns, reflecting the **Maratha legacy and local artistry**.
- The primary material used is **silver**, often in combination with other metals, making it a prized possession for religious and decorative purposes.

Historical and Cultural Roots

- Kolhapur has a long history of **silversmithing** and is renowned for its **silver ornaments** and artifacts.
- The tradition of crafting such Kalash pots dates back to the **Maratha Empire**, where they were used in temples and royal households.

Economic and Social Importance

- This craft sustains a community of **artisans** in Kolhapur, supporting their livelihood.
- The Kalash is also a popular **export product**, contributing to the recognition of Indian heritage globally.

Government Support and Recognition

- The **Government of Maharashtra** and organizations like **Handicrafts Development Commission** actively promote the craft through exhibitions and fairs.
- Efforts are underway to obtain a **Geographical Indication (GI) tag** for Kolhapur silver artifacts to protect their authenticity and heritage.

India-Nigeria Relations

Syllabus: GS-2; International Relations

Context

- Prime Minister Narendra Modi received Nigeria's second-highest national award - the Grand Commander of the Order of the Niger, making him the second foreign dignitary to receive the distinction.

Historical Background

- **Colonial Era**: Both India and Nigeria share a history of British colonization, which laid the foundation for their strong post-independence ties.

- **Non-Aligned Movement (NAM)**: India and Nigeria were founding members of NAM, emphasizing mutual respect and sovereignty in international relations.

Political Relations

- **Diplomatic Ties**: Established in 1958, before Nigeria's independence in 1960.
- **High-Level Visits**:
  - **Recent Visits**: Frequent interactions during global summits like the UN General Assembly and Commonwealth meetings.
  - India's Vice President Jagdeep Dhankhar visited Nigeria in 2023, reaffirming strategic ties.
- **Support in Multilateral Fora**: Nigeria supports India's bid for a permanent seat in the UNSC.

Economic Relations

- **Trade**: Nigeria is India's largest trading partner in Africa.
  - **Key Exports from India**: Pharmaceuticals, machinery, vehicles, and textiles.
  - **Key Imports to India**: Crude oil and natural gas (Nigeria is India's 3rd largest supplier of crude oil).
- **Bilateral Trade**: Exceeded **$14 billion** in 2023.
- **Indian Investments**: Over 135 Indian companies operate in Nigeria, contributing to sectors like manufacturing, pharmaceuticals, and ICT.

Energy Cooperation

- **Oil and Gas**: Nigeria is a major supplier of crude oil and LNG to India.
- **Partnership in Renewable Energy**: Collaboration under the **International Solar Alliance** (ISA) to enhance renewable energy adoption in Nigeria.

Development Cooperation

- **Lines of Credit (LOC)**: India has extended LOCs for infrastructure, agriculture, and healthcare development in Nigeria.
- **Capacity Building**:
  - **Indian Technical and Economic Cooperation (ITEC)**: Offers training to Nigerian officials in diverse fields.
  - Scholarships for Nigerian students under the **Indian Council for Cultural Relations (ICCR)**.
- **Healthcare**: Indian hospitals are popular destinations for Nigerian medical tourists.

Cultural and People-to-People Ties

- **Indian Diaspora**: Approximately 60,000 Indians live in Nigeria, engaged in trade, industry, and education.
- **Cultural Exchange**: Bollywood movies and yoga are popular in Nigeria, fostering cultural ties.

Defence and Security

- **Defence Cooperation**:
  - Regular participation in training programs and joint exercises.
  - Indian Navy collaborates with the Nigerian Navy to combat piracy in the Gulf of Guinea.
- **Counterterrorism**: Exchange of expertise and information to combat terrorism and cyber threats.

Challenges in Bilateral Relations

- **Piracy and Maritime Security**: Threats in the Gulf of Guinea impact trade and energy security.
- **Terrorism**: Boko Haram activities require enhanced intelligence-sharing mechanisms.
- **Trade Imbalances**: Need for diversification of trade beyond hydrocarbons.

Comb Jellies

Syllabus: GS-3; Science and technology

Context

- Researchers discover new species of marine creatures that can age in reverse.

A Glimpse into Time: The Reverse Aging of Comb Jellies

- In the shimmering depths of the ocean, a remarkable discovery has turned the world of biology on its head.
- ***Mnemiopsis leidyi*, the comb jelly, defies the natural order of birth, aging, and death, challenging everything we know about life cycles.**
- This enigmatic creature has the ability to reverse time, shedding years of age and returning to its youthful form—a phenomenon so surreal, it feels like a scientific dream come true.

The Unexpected Revelation

- It all began in a laboratory tank, where Joan J. Soto-Angel, a researcher captivated by the mysteries of marine life, stumbled upon a bizarre sight.
- Instead of the usual adult comb jelly, he discovered a larval version of the same creature. At first glance, it seemed like a different organism altogether.
- But after deeper investigation, the truth emerged: the adult comb jelly had transformed into its younger self.
- This unexpected reversal of time ignited a spark of curiosity that led to an experiment that would forever change our understanding of biology.

The Dance of De-Aging

- In the laboratory, Soto-Angel and his colleagues set out to replicate the conditions that had triggered this remarkable transformation.
- To their amazement, the adult comb jelly could indeed revert to its larval form, reshaping its body, its feeding behavior, and even its very essence.
- It wasn't just a physical transformation—it was a complete reset, as though the creature had turned back the clock on its existence.
- The researchers discovered that extreme stress had unlocked this hidden ability, a form of life cycle plasticity that had never before been observed.

A Journey Beyond Development- What does this mean for the future of biology?

- Soto-Angel's work invites us to reconsider the boundaries of development and rejuvenation, opening doors to new realms of understanding.
- In this strange twist of fate, time becomes fluid, malleable, and perhaps even conquerable.

Echoes from the Ancient Past

- The comb jelly is no ordinary creature—its origins stretch back more than 700 million years, making it one of the earliest animals to have ever graced the Earth.
- This ancient lineage imbues the jelly with a unique perspective on life, one that may hold the key to unraveling the deepest mysteries of evolutionary history.
- As we gaze upon this creature, we are reminded that life's timeline is not as linear as we once believed.

The Immortal Jellyfish: A Fellow Time Traveler

- In the great circle of "time travelers," the *Mnemiopsis leidyi* finds a curious companion in the *Turritopsis dohrnii,* the immortal jellyfish.
- Both species share a gift for reversing the natural progression of age, as if they have unlocked the secrets of biological immortality.
- Together, they offer a glimpse into a world where time is not a straight line, but a winding path that can be retraced and rewritten.

A New Horizon in Aging Research

- The discovery invites us to look beyond the inevitable march of time and consider the possibility of rejuvenation, not just for comb jellies, but for all living things, including ourselves.

African Elephant

Syllabus: GS-3; Biodiversity

Context

- African elephants, the planet's largest land animals, are celebrated for their intelligence, complex social systems, and essential role in their ecosystems. However, they are now facing a severe crisis, as highlighted in a recent comprehensive study published in the Proceedings of the National Academy of Sciences.

About-African Elephant (Loxodonta africana)

- The **African elephant** is the largest land mammal and is primarily found in Africa. It is divided into two subspecies: the **Savanna (Bush) Elephant** and the **Forest Elephant**.

Taxonomy and Classification

- **Scientific Name**: Loxodonta africana (Savanna elephant)
- **Family**: Elephantidae
- **Order**: Proboscidea
- **Subspecies**:
    - **Savanna (Bush) Elephant** (Loxodonta africana africana): Larger and more common, found in savannas and forested areas across sub-Saharan Africa.
    - **Forest Elephant** (Loxodonta cyclotis): Smaller, found in the dense rainforests of central and West Africa.

Physical Characteristics

- **Size**:
    - **Savanna elephants** are larger, standing up to 3.3 meters at the shoulder and weighing around 6,000 kg.
    - **Forest elephants** are smaller, with a height of 2.5 meters and weight of around 2,700 kg.
- **Tusks**: Both subspecies have tusks, but the forest elephant's tusks are straighter and smaller than the savanna elephant's.

- **Ears**: The African elephant has large ears shaped like the African continent, aiding in temperature regulation.
- **Trunk**: A long, flexible trunk used for feeding, drinking, and communication.

Habitat

- African elephants are found in a variety of habitats, from **savannas and forests** to **desert margins**. The **Savanna elephant** is more widespread across sub-Saharan Africa, while the **Forest elephant** prefers the dense tropical forests of Central and West Africa.

Reproductive Behavior

- **Gestation**: The African elephant has one of the longest gestation periods among mammals, lasting about **22 months**.
- **Calves**: Typically, a female elephant gives birth to one calf. The calf is dependent on the mother for the first few years of its life.

Conservation Status

- **IUCN Status**:
  - **Savanna elephant**: Listed as **Vulnerable** due to poaching for ivory and habitat loss.
  - **Forest elephant**: Listed as **Critically Endangered**, facing extreme threats from poaching, habitat loss, and fragmentation.
- **Threats**:
  - **Poaching**: African elephants are heavily targeted for their ivory tusks.
  - **Habitat loss**: Human encroachment, agriculture, and deforestation lead to the destruction of their habitats.
  - **Human-wildlife conflict**: Elephants often come into conflict with farmers due to their crop-raiding behavior.

Ecological Importance

- Elephants are considered **keystone species** in their ecosystems. Their feeding habits help shape the landscape by preventing the overgrowth of certain vegetation. They also play an essential role in seed dispersal, helping maintain forest biodiversity.
- **Water availability**: They dig water holes in dry areas, which are then used by other species.

Conservation Efforts

- **Protection Laws**: African elephants are protected under various national and international laws, including the **Convention on International Trade in Endangered Species (CITES)**, which bans international ivory trade.
- **Anti-poaching Measures**: Conservation programs, including **ranger patrols** and **satellite tracking** of elephants, have been implemented to curb poaching.
- **Habitat Protection**: Several wildlife reserves and national parks, such as **Kruger National Park** in South Africa and **Chobe National Park** in Botswana, offer safe havens for elephants.
- **Community Involvement**: Conservation initiatives focus on involving local communities to reduce human-elephant conflict and provide alternative livelihoods.

International Significance

- **Ivory Trade Ban**: The global ban on the ivory trade through CITES has been a major step in combating poaching, though illegal ivory markets still exist.
- **Tourism**: Elephants are a major draw for eco-tourism, especially in East and Southern Africa, which helps fund conservation efforts.
- **Cultural Symbol**: Elephants hold cultural significance in many African communities and are often depicted in traditional art, stories, and rituals.

Important African Elephant Range States

- **Kenya**: Home to famous parks such as **Amboseli National Park** and **Tsavo National Park**.
- **Botswana**: Holds the largest population of African elephants, especially in the **Okavango Delta** and **Chobe National Park**.
- **Tanzania**: **Serengeti National Park** and **Ngorongoro Conservation Area** are known for large elephant populations.
- **South Africa**: The **Kruger National Park** is home to a significant number of elephants.
- **Zimbabwe**: Known for **Hwange National Park**, which has a large elephant population.