

19 June, 2024

Pro-tem Speaker

Context: The 18th Lok Sabha's first session will take place from June 24 to July 3, during which the new Speaker of the House will be elected.

➤ What is a Pro-tem Speaker?

- **Role:** The pro-tem Speaker temporarily performs the duties of the Speaker of the Lok Sabha until a new Speaker is elected.
- **Definition:** 'Pro-tem' means 'for the time being' or 'temporarily'.

➤ Duties of the Speaker

- **Presiding Officer:** Oversees day-to-day proceedings of the Lok Sabha.
- **Constitutional Provision:** Article 94 states the Speaker remains in office until immediately before the first meeting of the new Lok Sabha.

➤ Selection of the Pro-tem Speaker

- **Appointment:** Chosen by the President from among the members of the Lok Sabha.
- **Handbook Reference:** The 'Handbook on the Working of Ministry of Parliamentary Affairs' outlines the procedure for the appointment and swearing-in of the Speaker pro tem.

➤ Duties of the Pro-tem Speaker

- **Administering Oaths:** Primary duty is to administer oaths to the new MPs.
- **Article 99:** Requires every member to make and subscribe an oath or affirmation before taking their seat.

➤ Process of Selecting the Pro-tem Speaker

- **Preparation:** The Legislative I Section of the Government prepares a list of the seniormost Lok Sabha members.
- **Approval:** The list is submitted to the Minister of Parliamentary Affairs or the Prime Minister for approval.
- **President's Approval:** The President appoints the Speaker pro-tem and three other members for administering oaths.

➤ Administering Oaths to New MPs

- **Prime Minister's Approval:** The consent of the selected members is obtained by the Minister of Parliamentary Affairs.
- **Presidential Approval:** A note is submitted to the President for approval of the appointments and the swearing-in date and time.
- **Notification:** The Ministry informs the Speaker pro-tem and other members about their appointments.
- **Swearing-in Ceremony:** The President administers the oath to the Speaker pro-tem, who then administers oaths to the newly elected members with the help of the other three appointed members.

- **Timing:** The session starts at 11 am, and the swearing-in of the Speaker pro-tem usually occurs at 9:30 am on the same day, subject to the President's convenience.

Ganga rerouted 2500 years ago

Context: A powerful earthquake that occurred approximately 2,500 years ago may be responsible for the current course of the Ganga River, according to a new study.

➤ Magnitude and Impact:

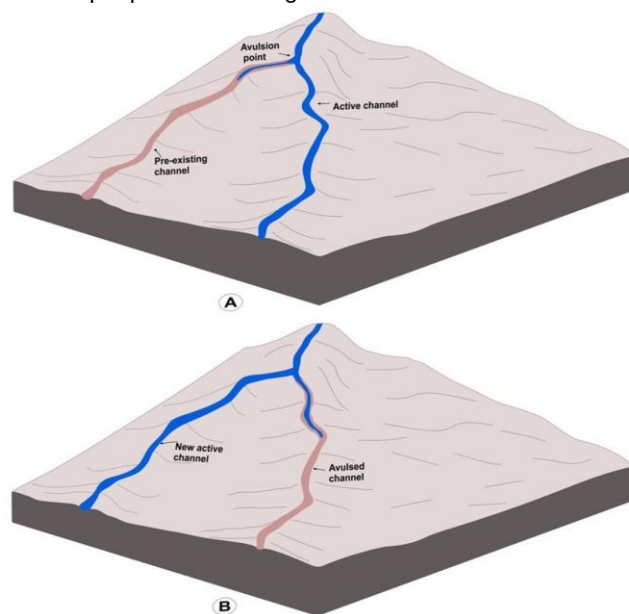
- Researchers estimate the earthquake had a magnitude of 7 or 8.
- The earthquake caused the river to abandon its previous channel and carve a new path in what is now Bangladesh.
- This type of avulsion can lead to large-scale flooding and significant changes in river channels.

➤ Threats to Seismically Active Lowlands:

- Earthquake-driven avulsion is a significant but underrecognized threat to lowland areas prone to seismic activity.
- The Bengal basin could experience devastating effects if a similar magnitude earthquake occurs.

➤ Causes of River Rerouting (Avulsions)

- **Sediment Load and Flooding:** High sediment loads can fill river beds, forcing rivers to find new channels during floods.
- **Human Activities:** Engineering solutions can constrain waterways, increasing flood risk.
- **Example:** In 2008, the Kosi river in India shifted course by over 120 kilometers, displacing 3 million people and causing over 250 deaths.



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➤ Earthquake-Triggered Avulsion

- **Instantaneous Nature:** Unlike gradual changes, avulsion caused by an earthquake can happen almost instantaneously.
- **Research Findings:**
 - It was previously unconfirmed that earthquakes could drive avulsion in large river deltas like the Ganga.
 - Evidence from millennial-scale reconstructions indicates earthquakes have impacted river channel geometries in regions such as the New Madrid seismic zone in the US and the Rann of Kutch in India.

Former Main Channel Near Dhaka

➤ Identification and Analysis:

- Satellite imagery identified the likely former main channel of the river, 100 km south of Dhaka.
- The older channel, now a low-lying area, frequently floods and is under rice cultivation.

➤ Field Observations:

- Excavation revealed vertical dikes of light-coloured sand cutting through horizontal layers of mud, known as seismites.
- Chemical analyses dated the avulsion and channel infilling to about 2,500 years ago, triggered by a significant earthquake.

Implications and Future Risks

Research Insights: Bangladesh's delta, with its tectonic activity and dynamic rivers, provides a unique study area for tectonic and river channel interactions.

➤ Potential Future Earthquakes:

- A 2016 study suggested a similar magnitude earthquake could strike the region again, potentially affecting 140 million people.
- Large earthquakes can have long-lasting economic, social, and political impacts.

Other At-Risk Regions: Sedimentary basins on tectonically active settings worldwide, including rivers like Chao Phraya (Thailand), Colorado (US), Copper (Alaska), Fraser (Canada), Indus, and China's Yangtze and Yellow rivers, are also at risk from seismic activities.

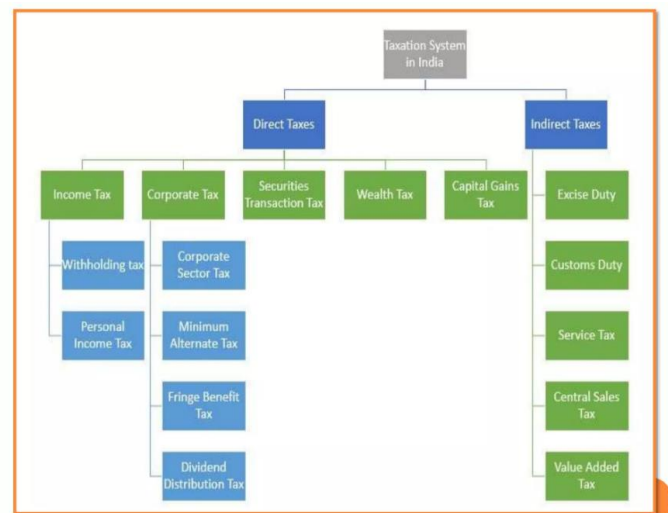
Direct Tax Collections

Context: Provisional figures for Direct Tax collections in FY 2024-25 show a 20.99% increase compared to the same period in FY 2023-24.

- Net direct tax collections for FY 2024-25 amounted to Rs. 4,62,664 crore, showing a growth of 20.99% compared to FY 2023-24.

• Breakdown of net collections:

- Corporation Tax (CIT) contributed Rs. 1,80,949 crore after refunds.
- Personal Income Tax (PIT) including Securities Transaction Tax (STT) contributed Rs. 2,81,013 crore after refunds.
- Gross direct tax collections for FY 2024-25 totaled Rs. 5,15,986 crore, marking a growth of 22.19% from FY 2023-24.
- Advance tax collections in FY 2024-25 reached Rs. 1,48,823 crore, reflecting a growth of 27.34% over FY 2023-24.
- Refunds issued during FY 2024-25 amounted to Rs. 53,322 crore, showing an increase of 33.70% compared to FY 2023-24.



TYPES OF TAXES

Types of Estimates

➤ Types of Estimates:

- **Actual Estimates:** Figures of expenditure and receipts from the previous financial year.
- **Provisional Estimates:** Estimates of revenue and expenditure for the current financial year.
- **Budget Estimates:** Estimates of revenue and expenditure for the upcoming financial year.

➤ Methods Used to Arrive at Estimates:

- **Advanced Estimates:** Predictions made before actual economic activities occur.
- **Revised Estimates:** Adjustments made mid-year based on changes in economic conditions or actual economic performance.
- **Quick Estimates:** Estimates derived from sample surveys to forecast overall economic activity.

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NEWS IN BETWEEN THE LINES

Cultured Beef Cells



Recently, a team of scientists in the South Korean capital is injecting cultured beef cells into individual grains of rice, in a process they hope will revolutionise how the world eats.

About Cultured Beef Cells:

- Cultured beef cells, **also known as lab-grown meat**, cell-cultivated meat, or clean meat, **are real meat grown in a lab from animal cells** without the need to slaughter animals.
- The process involves taking a **sample of animal cells**, storing them, growing them in an oxygen-rich medium, harvesting them and forming them into familiar cuts of meat using plant protein or other scaffolding for structure.
- Instead of being raised inside the body of an animal, this **meat is generated in cell culture**.
- It **tastes, smells, looks** and feels the same as traditional animal flesh and is **nutritionally similar**.
- In November **2022**, the U.S. **Food and Drug Administration (FDA)** approved the process, concluding that lab-grown meat is safe to eat.
- It is said that **cultured meat is better** for the environment and animals because it doesn't require land to be cleared for grazing or growing feed.
- However, it also raises ethical, philosophical and religious questions.
- For example, **religious authorities are still debating** whether **cultured meat is Kosher, Halal** or what to do if there's no animal available for ritual practices.

Bio-Bitumen



Recently, India aims to start large-scale production of bio-bitumen from agricultural waste.

About Bio-Bitumen:

- Bio-bitumen is a **sustainable, bio-based alternative** to traditional petroleum-based bitumen.
- It's made using **non-petroleum-based renewable resources** and can be made from **vegetable oils, synthetic polymers**, or both, making it a more sustainable model long term.
- Bio-bitumen production **has a lower carbon footprint** compared to conventional bitumen.
- It can be used as an additive to conventional bitumen or to reduce the amount of bitumen needed in the binder mixture.
- The benefits of bio-bitumen include **reduced imports, mitigation of stubble burning, substantial savings** on foreign exchange and boosting the bioeconomy.
- Bio-bitumen is primarily used in **road construction** (asphalt), **roofing materials** and **waterproofing products**.

Bakra River



Recently, a portion of the 182-metre bridge over the Bakra river collapsed in Araria district of Bihar.

About the Bakra River:

- The Bakra River, **also known as the Bakra Nadi**, is an important river that flows primarily through the state of **Bihar**.
- It is a tributary of the **Ghaghara River**, which itself is a major left-bank tributary of the Ganges.
- It **originates in the hills of Nepal** and flows through the Champaran district of Bihar.
- It plays a crucial role in the **irrigation** and agriculture of the region it traverses.
- Like many rivers in the region, the Bakra River also **faces issues** related to **water sharing and management**, impacting both India and Nepal due to its **transboundary** nature.

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Place in News

Thailand

Recently, Thailand has become the first country in Southeast Asia to legalise same-sex marriage.

Thailand (Capital: Bangkok)

Location: Thailand is a country located in Southeast Asia.

Boundaries: Thailand shares its borders with **Myanmar** (Northwest), **Laos** (Northeast), **Cambodia** (Southeast), **Gulf of Thailand and Malaysia** (South), the **Andaman Sea** (Southwest).

Physical Features:

- Thailand boasts numerous islands in the Andaman Sea and the Gulf of Thailand, such as **Phuket, Koh Samui, Koh Phi Phi** and **Koh Tao**.
- The highest point in Thailand is **Doi Inthanon**, located in the Chiang Mai Province in the northern part of the country.
- The major rivers in Thailand include the **Chao Phraya, Mekong, Mae Klong, Nan** and **Ping**.
- Thailand generally experiences a **tropical climate** characterized by hot and humid weather throughout the year.



POINTS TO PONDER

- Which Indian state recently launched 'Mission Nischay'? – **Punjab**
- In August, which country will host the multinational air exercise 'Tarang Shakti 2024'? – **India**
- Which international organization recently supported the Greater Chennai Corporation (GCC) to achieve sustainable waste management in the city? – **World Bank**
- In recent news, what is 'Aedes albopictus'? – **Mosquito**
- Matsya 6000, which has been in the news, is developed by which Indian institute? – **National Institute of Ocean Technology (NIOT), Chennai**

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