



**UPSC  
Mentorship**  
A Unit of Mentorship India

# DAILY CURRENT AFFAIRS

6th May 2024



SOURCES



## GS I

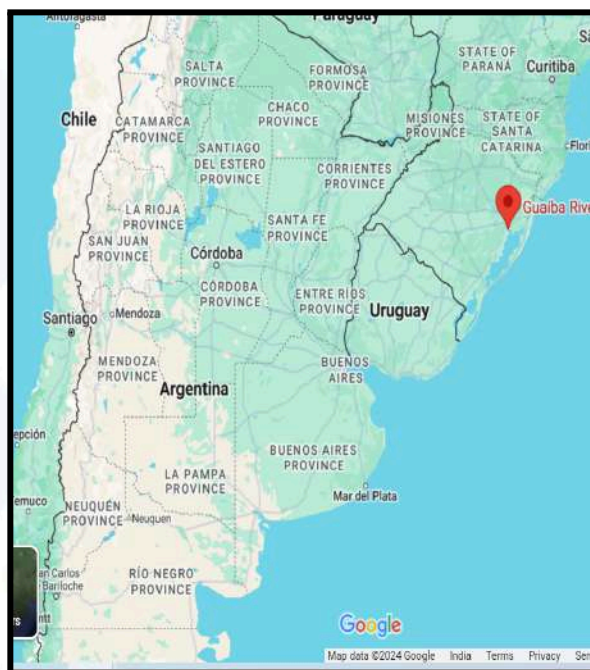
### 1. Southern Brazil hit with worst flood in decades -The Hindu

**REFERENCE:** Important Geophysical phenomena  
**News**

- The Guaíba River surged to an unprecedented height of 5.3 meters, surpassing the historical peak of 4.76 meters recorded during the devastating floods of 1941.

#### GUAIBA RIVER

- Guaíba, known as both a "river" (Rio Guaíba) and a "lake" (Lago Guaíba) - significant water body in Rio Grande do Sul, Brazil's southernmost state.
- Guaíba ultimately flows into the Lagoa dos Patos, South America's largest lagoon.
- Encompassing a total area of 496 square kilometers (192 sq mi), Guaíba holds strategic importance for the region.
- Located on its eastern shore are Porto Alegre, the state capital and most populous city, and Viamão.
- Guaíba is navigable and serves as a vital transportation route, connecting to the Atlantic Ocean via the Lagoa dos Patos and its outlet channel near the city of Rio Grande to the south.



### 2. An aerial view of hippopotamuses stuck in a dry channel in the Okavango Delta, Botswana.-The Hindu

**REFERENCE:** Important Geophysical phenomena  
**News**

- A drought across southern Africa has been driven mostly by the El Niño weather pattern, not climate change, scientists have said.
- Zambia, Zimbabwe, and Malawi have declared a national disaster over the severe dry spell that started in January and has devastated the agricultural sector, decimating crops and pastures.

#### About El Niño:

- El Niño is a naturally occurring climate pattern associated with the warming of ocean surface temperatures in the central and eastern tropical Pacific Ocean.





- It occurs irregularly at intervals of two to seven years.

**Impact of El Niño on Global Weather:**

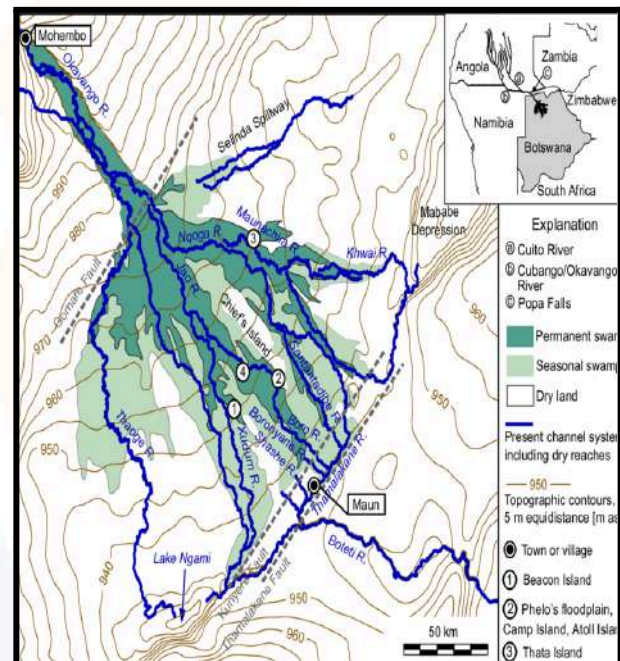
- El Niño significantly affects weather patterns, ocean conditions, and marine fisheries worldwide.
- The strong El Niño of 2015-2016 brought intense drought to southern Africa, the region's worst in 35 years.
- Coupled with excess warming from climate change, the current El Niño is expected to lead to record-high temperatures globally.
- According to a study published in the journal Science, El Niño could result in global financial losses of \$3 trillion in 2024.

**Impact on India:**

- In India, El Niño is often associated with weak monsoons and drought-like conditions.
- It can cause reduced rainfall, dry spells, and heatwaves, leading to crop failures and water scarcity.
- These intense weather conditions can devastate agricultural production, and manufacturing, and contribute to the spread of diseases.

**OKAVANGO DELTA**

- Situated in northwest Botswana, comprises permanent marshlands and seasonally flooded plains.
- It is formed by the Okavango River, originating in the highlands of Angola.
- Designated as a UNESCO World Heritage Site in Southern Africa
- It has been named one of the Seven Natural Wonders of Africa.
- Fauna & Flora: savanna elephants, Cape buffaloes, rhinos, lions, leopards, giraffes, zebras, antelopes, pangolins, over 400 bird species, and more than 1,000 plant species.
- Natives: The delta is also the ancestral homeland of indigenous people like the San.



**Endorheic Delta:**

- It is among the few large inland delta systems globally without a direct outlet to the sea, known as an endorheic delta.
- Instead, its waters drain into the desert sands of the Kalahari Basin.

**Flooding Pattern:**

- A unique aspect of the delta is its flooding pattern. Annual flooding from the Okavango River occurs during the dry season, synchronizing the biological cycles of native plants and animals with seasonal rains and floods.
- This interaction of climatic, hydrological, and biological processes makes it an exceptional example.



### 3. Catatumbo lightning: a torrent of current -The Hindu

**REFERENCE:** Important Geophysical phenomena.

#### News

- In the heart of Venezuela, above the Catatumbo River, Catatumbo lightning, where bolts of lightning illuminate the sky almost incessantly.
- This phenomenon is primarily observed at the mouth of the Catatumbo River, where it converges with Lake Maracaibo, Venezuela's largest lake.

#### CATATUMBO LIGHTNING

- The genesis of Catatumbo lightning is a convergence of various atmospheric elements.
- Warm, moisture-laden air from the Caribbean Sea clashes with cooler air descending from the towering Andes mountains, creating a meteorological symphony.
- The unique topography of the region accelerates the upward movement of warm air, leading to rapid cooling and condensation, resulting in the formation of towering cumulonimbus clouds.
- The interplay of robust winds and temperature differentials generates electrical charges within the cumulonimbus clouds.
- These towering clouds, sometimes exceeding 5 km in height, become reservoirs of static electricity.
- When the electrical potential within these clouds reaches a critical point, it manifests in the form of lightning discharges.

#### FEATURES OF CATATUMBO LIGHTNING

- Stands out for its remarkable frequency and endurance.
- Lightning strikes illuminate the night skies for up to 160 nights annually, with an astonishing average of 28 lightning strikes per minute during its peak periods.
- This continuous display of electrical activity has rightfully earned the region the prestigious title of "the lightning capital of the world."

## GS II

### 4. An overview of Sudan's civil war -The Hindu

**REFERENCE:**Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.

#### News

- Sudan, a North African nation, has been grappling with a series of coups and internal conflicts since gaining independence in 1956.

#### Prehistoric Roots:

- The roots of Sudan's history trace back to the 8th-5th millennium BCE, with Neolithic migrations from the Sahara bringing people to the Nile Valley, and introducing agriculture.



- By 1700 BCE, the Kingdom of Kush emerged along the Nile in present-day northern Sudan, deeply intertwined with ancient Egypt.

#### **Egyptian Influence:**

- Sudan's proximity to Egypt led to significant Egyptian influence, with the region frequently mentioned in ancient Egyptian sources as Kush.
- The Christianization of Nubian kingdoms in the 6th century CE diminished Egyptian influence.

#### **Islamic Expansion:**

- Islam reached the Sudanese Red Sea coast in the 7th century, but the Nile Valley wasn't Islamized until the 14th–15th century, following the decline of Christian kingdoms.

#### **Colonial Era:**

- In the early 16th century, the Ottoman Empire and Funj Sultanate conquered much of the former Nubian Empire.
- Muhammad Ali Pasha of Egypt seized control of Sudan in the 1820s, followed by European colonization attempts.

#### **Independence and Conflict:**

- Sudan gained independence in 1956, marking the beginning of internal conflicts, including the First Sudanese Civil War (1955–1972), the Second Sudanese Civil War (1983–2005), and the War in Darfur (2003–2010).
- South Sudan seceded in 2011, leading to a subsequent civil war.

#### **Recent Crisis:**

- The latest crisis erupted in 2023, with a power struggle between Sudan's military factions, particularly the Rapid Support Forces (RSF) and the Sudanese military.
- Concerns over escalating violence and regional destabilization have emerged, impacting neighboring countries like Chad, Egypt, Ethiopia, and South Sudan.

#### **Global Concerns:**

- The crisis in Sudan has global implications, with vested interests from countries like Russia, the US, Saudi Arabia, and the UAE.
- Geopolitical factors, including competition for influence and resource access, shape international responses to the crisis.

#### **India's Response:**

- India and Sudan share ancient ties, with India being the second-largest exporter to Sudan after China.
- The crisis has endangered thousands of Indian lives in Sudan, prompting coordinated efforts with other countries to ensure the safety of Indian nationals.

#### **OPERATION KAVERI**

- India's mission is to evacuate its citizens from Sudan, where conflicts between the army and a rival paramilitary force have intensified.
- INS Sumedha, a stealth offshore patrol vessel, along with two Indian Air Force C-130J special operations aircraft, were deployed which are on standby in Jeddah.
- Around 2,800 Indian nationals are stranded in Sudan, with an additional settled Indian community of approximately 1,200 residing in the country.





**WAY AHEAD**

- Sudan's tumultuous history reflects a complex tapestry of cultural, political, and economic dynamics, with its current crisis underscoring the need for international cooperation and diplomatic efforts to achieve stability and peace in the region.
- Sudan requires a collaborative effort from the international community to aid reconstruction.
- It needs to establish a transparent, civilian-led government that represents the Sudanese populace and hears their voices in decision-making processes.
- Urgent action is needed to reconstruct Sudan's post-colonial state as one that includes and safeguards the rights of all.

## 5. T.N. moves top court, accuses Kerala of obstructing work on Mullaperiyar dam -The Hindu

**REFERENCE:** Indian Constitution—Centre State and Interstate Relations.

**News**

Tamil Nadu contended that Kerala has managed to delay even routine annual maintenance works, including painting, patchwork, repair to staff quarters, etc., for two months to more than a year.

**Mullaperiyar Dam:**

- It is a masonry gravity dam built over the Periyar River in Thekkady, Idukki district, in Kerala.
- The dam is built at the confluence of the Mullayar and Periyar rivers.
- The dam is owned, operated, and maintained by Tamil Nadu.
- The Periyar National Park is located around the dam's reservoir.



# MULLAPERIYAR DAM

Timeline



## GS III

### 6. India has stringent norms for pesticide residue limit: Centre -The Hindu

**REFERENCE:** GS-III Public Distribution System- objectives, functioning, limitations, revamping; issues of buffer stocks and food security

#### News

- The government rejected reports suggesting that the Food Safety and Standards Authority of India (FSSAI) allows high levels of residues in spices and herbs.
- FSSAI decided to allow more pesticides in herbs and spices, raising concerns among activists and scientists about health risks and trade problems.
- The FSSAI increased the maximum residue limit (MRL) of pesticides allowed in herbs and spices from 0.01 mg/kg to 0.1 mg/kg.

#### Problem with the FSSAI's Decision

##### Inconsistencies with Previous Stance:

- The FSSAI's decision contradicts its earlier position.
- In April 2022, the authority admitted that there wasn't enough data on Indian pesticides and suggested using Maximum Residue Limits (MRLs) set by Codex Alimentarius.
- However, the recent order is different for spices and herbs.

##### Data Reliability:

- The MRL of pesticides for food, including spices and herbs, is determined by the Food Safety and Standards (Contaminants, Toxins and Residues) Regulation, 2011.
- This data comes from field trials conducted by the Central Insecticides Board and Registration Committee (CIBRC), which is part of the Union Ministry of Agriculture and Family Welfare.
- But there's a conflict of interest as pesticide companies often provide these studies.

##### Impact on Consumers and Trade:

- Countries with strict pesticide rules, like Europe, reject Indian products that exceed their MRLs.
- Recently, some Indian spices firms were banned in Singapore and Hong Kong for containing too much of the pesticide 'ethylene oxide', which is harmful and can cause cancer with long-term exposure.

#### PESTICIDES

- Pesticides are chemicals or biological substances used to control pests in agricultural and non-agricultural settings, aiming to prevent, destroy, or manage pest damage.

#### Regulation in India:





- Pesticides are regulated under the Insecticides Act, 1968, and the Insecticides Rules, 1971, overseen by the Department of Agriculture and Farmers Welfare, Ministry of Agriculture and Farmers Welfare.

#### **Types of Pesticides**

- **Insecticides:** Protect plants from insects and pests.
- **Fungicides:** Control fungal diseases in plants.
- **Herbicides:** Kill or control weed growth in cultivation areas.
- **Bio-Pesticides:** Derived from animals, plants, bacteria, etc.
- **Others:** Include plant growth regulators, nematicides, rodenticides, and fumigants.

#### **Pesticide Poisoning**

- Pesticide poisoning occurs when humans or animals are adversely affected by exposure to pesticides.
- Exposure can lead to health issues such as cancer, reproductive effects, and damage to the immune or nervous systems.
- According to the World Health Organization (WHO), pesticide poisoning is a significant cause of death among agricultural workers globally.

#### **Types of Pesticide Poisoning**

- **Acute poisoning:** Results from ingesting, inhaling, or contacting a large amount of pesticide in a short time.
- **Chronic poisoning:** Occurs due to exposure to low doses of pesticide over an extended period, causing damage to various organs and body systems.

## **7. Where does 'us versus them' bias in the brain come from? -The Hindu**

**REFERENCE:** Science and Technology & GS IV

#### **News**

- Exploring the Origins of Intergroup Bias in the Human Brain

#### **Modern Genetics vs. Historical Bias:**

- Despite modern genetics affirming human equality, historical biases persist.
- Intensive research in psychology and neuroscience aims to unravel the origins of this deep-seated tendency.

#### **Implicit Bias Study:**

- The study reveals implicit biases favoring socially advantaged groups, contrasting explicit beliefs in racial equality.
- A psychological test (IAT) exposes subconscious biases through quick-fire rounds, highlighting universal tendencies.

#### **Brain's Shifting Criteria:**

- The brain processes information about in-groups ("us") and out-groups ("them") differently.
- Study demonstrates the brain's dynamic categorization criteria, influenced by social identity facets.





#### **Learned Bias:**

- Bias is a learned response shaped by cultural associations and brain biology.
- Preferential bias towards in-group members doesn't inherently translate to hostility towards out-group members.

#### **Neuroimaging Studies:**

- Neuroimaging studies underscore the role of the amygdala in processing intergroup threats.
- Activation of the amygdala indicates threat perception from out-group members, influencing neural processing.

#### **Impact of Bias:**

- Differential processing based on social identity can lead to subtle favoritism or extreme intergroup violence.
- Uncertain circumstances, like those during the pandemic, exacerbate mistrust towards out-groups.

#### **Cognitive Effort in Processing:**

- Cortical activation suggests cognitive effort in processing reconciliatory statements, contrasting automatic threat perception.
- Understanding neural processing can inform strategies for improving reconciliation and mitigating bias.

#### **Conclusion:**

- Awareness of brain biology can empower the critical evaluation of social narratives.
- A deeper understanding of intergroup bias in the brain offers insights for fostering informed decision-making and societal cohesion.



## CASE STUDY

### 8. Kenyan students plant bamboo around the school to filter filthy air from trash dump -The Hindu

**REFERENCE:** GS-III Conservation, environmental pollution and degradation

#### **Case Study: Bamboo Planting to Combat Air Pollution in Dandora, Kenya**

**Background:** In the heart of Nairobi, Kenya's capital, lies Dandora, home to one of Africa's largest trash dumps. Dandora Secondary School shares its name with the dumpsite, which has been declared full for over two decades but continues to receive hundreds of tons of waste daily.

#### **Initiative**

- Faced with the challenges of foul air and acrid smoke from burning trash, students armed with gardening tools took matters into their own hands.
- Over 100 bamboo plantings now surround the school compound, a project initiated by the school's principal, Eutyclus Maina.
- The goal is to mitigate the effects of air pollution caused by the nearby dumpsite and improve respiratory health in the community.

#### **Impact**

- Supported by research highlighting bamboo's ability to absorb carbon dioxide, the initiative has gained momentum.
- The United Nations, through the United Nations Environment Programme (UNEP), promotes the use of bamboo for its environmental benefits.
- Already, the nine-foot-tall bamboo seedlings planted by students in August are thriving, with expectations of reaching 40 feet when mature.

#### **Challenges and Solutions**

- The initiative faces financial hurdles, with the school relying on donations to afford the seedlings.
- However, determined to transform their environment, the school management remains committed to lining the school's perimeter with bamboo.
- Additionally, the school is planting other trees to further enhance air quality and circulation.

#### **Conclusion**

- The bamboo planting initiative undertaken by students at Dandora Secondary School represents a grassroots response to the pressing issue of air pollution in their community.
- By harnessing the potential of nature, they are not only combating pollution but also inspiring positive change and resilience in the face of environmental challenges.





## DAILY QUIZ

Consider the following with reference to the Okavango delta

1. It is located in Botswana in South America.
2. It is an endorheic lake.
3. It has been designated as a UNESCO World Heritage Site.

Select the correct answer

- A. 1, 2 and 3
- B. 2 and 3**
- C. 1 and 2
- D. None of the above

Recently seen in the news RIVER GUAIBA flows in which country

- A. Chad
- B. Brazil**
- C. Argentina
- D. Japan

Consider the following with reference to geophysical phenomena - LIGHTENING

1. Warm, moisture-laden air clashes with cooler air creates a meteorological symphony.
2. Rapid cooling and condensation, result in the formation of towering cumulonimbus clouds.
3. The interplay of robust winds and temperature differentials generates electrical charges within the cumulonimbus clouds.
4. When the electrical potential within these clouds reaches a critical point, it manifests in the form of lightning discharges.

Select the correct answer

- A. 1,2,3 and 4**
- B. 2, 3 and 4
- C. 1,2 and 3
- D. None of the above

Consider the neighboring countries of Botswana

1. Namibia
2. South Africa
3. Lesotho
4. Zimbabwe
5. Angola

Select the correct option



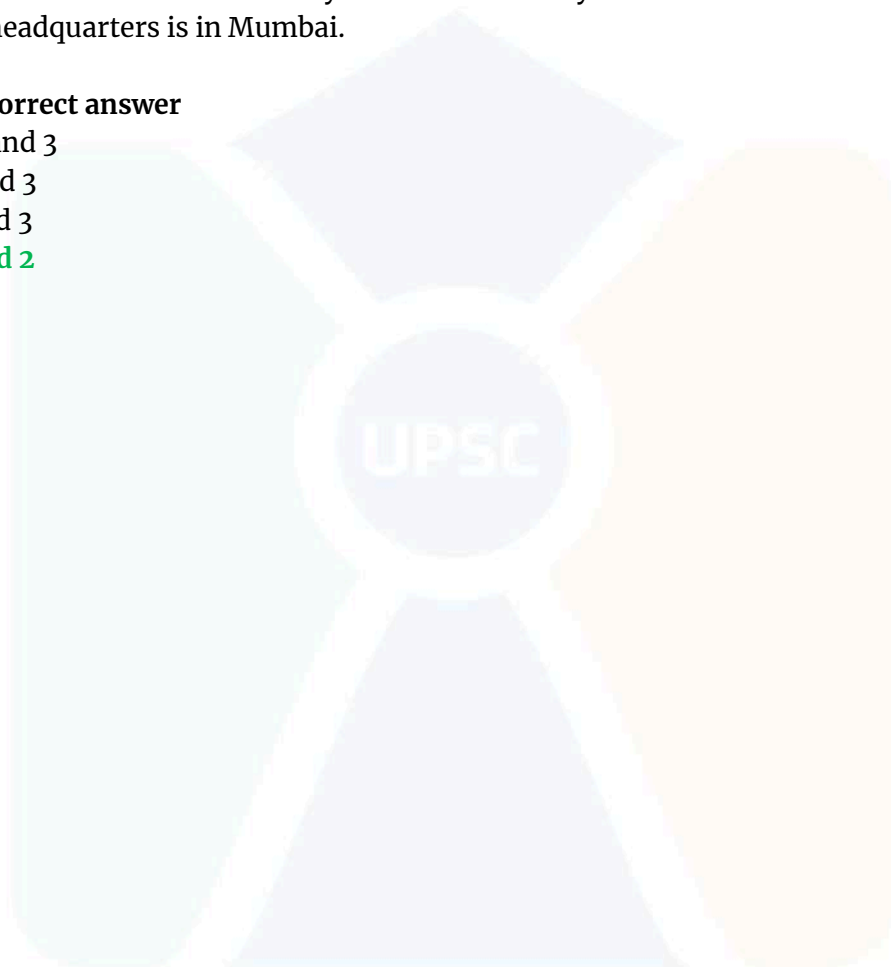
- A. 1, 2 and 4
- B. 2, 3, 4 and 5
- C. 1, 2, 3, and 4
- D. All of the above

Consider the following with reference to the Food Safety and Standards Authority of India

1. It is a statutory body established under the Food Safety and Standards Act, of 2006.
2. It operates under the Ministry of Health & Family Welfare.
3. Its headquarters is in Mumbai.

Select the correct answer

- A. 1, 2 and 3
- B. 2 and 3
- C. 1 and 3
- D. 1 and 2







**UPSC  
Mentorship**

A Unit of Mentorship India



## GET IN TOUCH

+919999057869

[www.upsmentorship.com](http://www.upsmentorship.com)

@mentorship.india

C - 103, Second Floor, Sector-2  
Noida - 201301

[contact@mentorshipindia.com](mailto:contact@mentorshipindia.com)