

# Daily Current Affairs To The Point by Dhananjay Gautam

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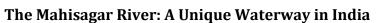




GS Paper 3 – Disaster Management

Gujarat Bridge Collapse: A Stark Reminder of India's Fragile Public Infrastructure

Context: The collapse of the Mujpur-Gambhira bridge over the Mahisagar (Mahi) River in Gujarat has once again laid bare the alarming vulnerability of India's public infrastructure. This tragic incident is not an isolated event — it echoes a pattern of **infrastructure failures** across the country that risk both **public safety and economic progress**.



The Mahisagar River, also known as the Mahi River, is a rare westflowing interstate river.

- Origin: Northern slopes of the Vindhya Range in Dhar district, Madhya Pradesh
- States Traversed: Madhya Pradesh, Rajasthan, and Gujarat .
- Endpoint: Drains into the Gulf of Khambhat in the Arabian Sea
- Geographical Distinction: It is the only river in India to cross the Tropic of Cancer twice
- **Major Tributaries:** 
  - 0 Right Bank: Som River
  - Left Bank: Anas River, Panam River 0

#### Public Infrastructure: Backbone of India's Development

India's public infrastructure forms the foundation of economic growth, social equity, and national **resilience**. It includes a wide range of systems:

- **Transport networks** like highways, bridges, and railways
- **Urban utilities** such as drainage, water, and waste management ٠
- Energy and telecom systems •
- Port and shipping infrastructure

Despite major progress in the last decade — particularly in transportation, housing, and digital **connectivity** — the **integrity and sustainability** of infrastructure remain **deeply compromised**.

#### **The Numbers Paint a Grim Picture:**

According to data from the **Ministry of Statistics and Programme Implementation (MoSPI)**:

- **431 major infrastructure projects** are delayed with a total **cost overrun of 4.82 lakh crore** (as of December 2023)
- Around **36% of these projects** are running **25 to 60 months behind schedule**
- Urban India will require an estimated 70 lakh crore investment by 2036 just to meet its infrastructure demands

#### Why India's Infrastructure is So Fragile:

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#### 1. Chronic Underfunding and Investment Gaps:

- Municipal budgets remain at just 1% of India's GDP, severely limiting local governments' capacity to maintain or upgrade infrastructure.
- **Private sector investment** remains low due to **long payback periods** and **high financial risks**.

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- 2. Overdependence on the Public Sector:
  - The **public sector contributes nearly 78%** of total infrastructure investment, putting an immense **financial burden on the government**.
- 3. Fragmented and Inefficient Governance:
  - Multiple agencies operate with **overlapping responsibilities** and **poor coordination** a reality in cities like **Delhi and Mumbai**.
  - The result: reactive maintenance, blame games, and lack of long-term planning.
- 4. Faulty Project Planning and Execution:
  - Many infrastructure projects are launched without **detailed feasibility studies** or **accurate data**.
  - **Underpasses** prone to flooding and **drainage systems** built on natural water basins are common planning errors.
  - Detailed Project Reports (DPRs) are often outsourced and of inconsistent quality.
- 5. Regulatory and Legal Roadblocks:
  - Land acquisition issues, outdated building codes, and weak enforcement of safety standards delay projects.
  - **Dispute resolution mechanisms** are slow and ineffective, **discouraging private investment**.
- 6. Lack of Skilled Manpower and Modern Tools:
  - Urban local bodies often operate without trained engineers, project managers, or digital planning tools.
  - Although **short-term training programs** are being considered, **systemic reforms** are urgently needed.
- 7. Rising Vulnerability to Climate and Disasters:

According to the **CBRE-CII Report 2024**, **half of India's infrastructure** is **unprepared** for:

- Natural disasters such as floods, cyclones, and heatwaves
- Man-made risks like industrial accidents, cyberattacks, and public health emergencies

Path Forward: A Blueprint for Stronger Infrastructure:

- 1. Structural and Governance Overhaul:
  - Recognize urban infrastructure as critical national infrastructure
  - Set up **integrated**, **tech-enabled urban governance bodies** to manage planning and operations

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• Empower municipalities through stronger State Finance Commissions

#### 2. Rethinking Finance:

- Develop a robust municipal bond market
- Create pooled finance mechanisms for smaller towns
- Separate project preparation from funding to ensure objectivity and sustainability
- 3. Better Spatial and Industrial Alignment:
  - Align urban growth with industrial corridors to improve resource utilization
  - Implement land value capture policies in transport hubs and metro systems

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#### 4. Climate Resilience and Sustainability:

- Integrate climate adaptation strategies into all infrastructure projects
- Promote **green building norms**, **renewable energy adoption**, and **circular economy models** for waste and sanitation

#### Additional Insight: Lessons from Global Best Practices:

Countries like Japan and Germany have achieved resilience in infrastructure through:

- Strict quality standards and audits
- Public-private partnerships (PPPs) with robust legal backing
- Citizen participation in urban planning

India can draw from such examples by fostering **accountability**, encouraging **local innovation**, and ensuring **community involvement** in infrastructure development.

#### **Conclusion: Time to Act, Not React**

The Gujarat bridge collapse must serve as a **catalyst for transformation**. Infrastructure cannot be seen merely as concrete and steel — it is the **lifeline of a modern, inclusive, and resilient India**. Proactive governance, sustainable planning, and empowered institutions are no longer optional — they are essential.

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**GS Paper 3** – Space & Technology

Starlink Gets Final Regulatory Clearance to Launch in India: A New Era of Satellite Internet Begins

**Context:** In a landmark development, **Elon Musk's Starlink** has received the **final regulatory green light** from India's space regulator, **IN-SPACe (Indian National Space Promotion and Authorisation Centre)**, to operate **satellite-based internet services** across the country. This approval marks a **significant step forward** in India's ambition to expand **digital connectivity to remote and underserved regions**.



About Starlink's Entry into India:

- Waiting Since 2022: Starlink has long awaited operational clearance in India.
- **Third Licensed Player**: It follows **Eutelsat's OneWeb** and **Reliance Jio's satellite arm**, becoming the **third major company** authorized to provide satellite broadband in India.
- Valid Till 2030: Starlink's license permits operation of its Gen1 satellite constellation until the end of the decade.

#### While the regulatory nod is secured, Starlink still needs to:

- Obtain **spectrum allocation** from the government,
- Establish ground-based infrastructure, and
- Pass security and compliance trials required by Indian authorities.

#### India's Regulatory Framework for Satellite Internet

#### Telecom Lic<mark>ensing L</mark>aws:

- Indian Telegraph Act, 1885:
  - **Section 4**: Reserves telecom rights for the Union Government.
  - **Section 7**: Allows formulation of licensing rules.
- Telecom Regulatory Authority of India (TRAI) under the TRAI Act, 1997:
  - **Section 11**: Guides TRAI in licensing conditions, spectrum management, and ensuring fair competition.
  - TRAI plays a **critical role** in framing recommendations that impact Starlink's operations.

#### **Telecommunications Act, 2023:**

- Governs satellite spectrum allocation through administrative means.
- Enforces compliance on:
  - Security and encryption protocols
  - Fair pricing structures

#### **Space Sector Oversight:**

- **Satellite Communications Policy, 2000**: Governs satellite usage in India.
- **IN-SPACe** acts as a nodal agency coordinating private players like Starlink and aligning them with:
  - ISRO operations

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• National strategic space priorities

**Cybersecurity and Data Laws:** 

- Information Technology Act, 2000: Covers cybersecurity and lawful interception.
- Digital Personal Data Protection Act, 2023: Mandates data encryption, local storage, and strict data privacy compliance.
- **National Security Protocols**: Starlink must adhere to surveillance and monitoring guidelines by the **Ministry of Home Affairs** and intelligence agencies.

#### Why This is a Big Deal for India:

- **1. Revolutionizing Connectivity:** With Starlink's **low-earth orbit (LEO) satellites**, **high-speed broadband** can reach even the most **remote villages and mountainous terrains** where traditional telecom infrastructure is either **infeasible or too expensive**.
- 2. Encouraging Innovation Through Privatization:
  - **Private firms like SpaceX** have slashed operational costs by innovating technologies like **reusable rockets** (e.g., **Falcon 9**).
  - Lean teams, faster decision-making, and efficient funding make private participation a key to India's space success.
- 3. Boosting Employment & Self-Reliance:
  - Increased private sector involvement translates into high-skill job creation, technology transfers, and indigenous capability building.
  - India aims to become not just a user but a **global exporter** of space technology and services.

#### Governmen<mark>t Steps to</mark> Strengthen India's Space Sector:

#### Space Sector Reforms (2020):

- Defined roles of ISRO, IN-SPACe, and NSIL
- Opened doors for private enterprise and startups

#### Indian Space Policy, 2023:

- Provides a level playing field to Non-Government Entities (NGEs)
- Encourages foreign and domestic investment

#### Strategic Roadmap: Space Vision 2047

- Bharatiya Antariksh Station (BAS) by 2035
- Indian Moon Landing targeted by 2040
- Upcoming missions:
  - Gaganyaan follow-ons
  - Chandrayaan-4 (2027) to collect moon samples
  - Venus Orbiter Mission (2028)
  - Next-Gen Launch Vehicle (NGLV) by 2032

#### Funding and Innovation Ecosystem:

• **IN-SPACe Venture Capital Fund**: 1000 crore for startups over 5 years

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- **SpaceTech Innovation Network (SpIN)**: Unique public-private collaboration to support SMEs and early-stage innovators
- **100% FDI** allowed under revised policy a bold move to attract global capital

#### What Lies Ahead for Starlink and India:

- **1. Early Engagement is Crucial:** Starlink's long wait shows the need for **early, transparent dialogue** between regulators and global tech companies. **Streamlining approvals** can reduce uncertainty and encourage more innovation.
- 2. Upholding Digital Sovereignty: India's regulatory framework stresses national security through strict data localization, encryption, and interception protocols ensuring digital self-reliance while welcoming foreign tech.
- **3. Bridging the Digital Divide:** Starlink's launch could become a **game-changer for rural India**, supporting:
  - Digital education
  - Remote healthcare access
  - Online commerce and governance in far-flung regions
- 4. Strengthening India's Digital Infrastructure Vision:

As India aspires to be a **global digital powerhouse**, Starlink's onboarding reflects a test of:

- Regulatory transparency
- Investment climate for future tech
- Commitment to inclusive digital growth

#### Conclusion: <mark>A New O</mark>rbit for India's Digital Future

The approval of Starlink is more than just a business clearance — it's a **milestone in India's journey towards a globally connected, innovation-driven future**. With **satellite broadband**, India is poised to **democratize access to information**, strengthen its **strategic autonomy**, and **unlock the full potential** of its digital economy.







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**GS Paper 1 – Geography** 

Lake Turkana: Ancient Discoveries and Modern Challenges in Africa's Great Desert Lake

**Context:** In a remarkable scientific achievement, researchers have successfully **extracted enamel proteins from 18–20 million-year-old mammal fossils** found in the **Lake Turkana Basin**. This groundbreaking discovery offers unprecedented insights into **prehistoric species evolution**, **climate change**, and the **biogeography of ancient Africa**. The study marks one of the oldest molecular-level extractions ever achieved from fossilized remains.



#### Lake Turkana: Geography and Ecological Significance

Located in the **rugged and remote northern region of Kenya**, **Lake Turkana** lies within the **Eastern Rift Valley**, with its **northernmost tip extending into Ethiopia**.

- Inflow Rivers: Three rivers feed the lake Omo, Turkwel, and Kerio.
- Among these, only the **Omo River is perennial**, providing **90% of the lake's annual water supply**.
- Despite being in a desert landscape, Lake Turkana is the world's largest permanent desert lake and Africa's fourth-largest lake by surface area.
- The lake is **semi-saline** and located in a **hot, arid environment**, with **extremely high evaporation rates**.

#### UNESCO Wor<mark>ld Heritag</mark>e and Biodiversity Hotspo<mark>t:</mark>

Recognized as a **UNESCO World Heritage Site**, Lake Turkana is famed not only for its **geological and ecological uniqueness**, but also for its **cultural and anthropological importance**.

- The region has been called the **"Cradle of Mankind"** due to the discovery of numerous early hominin fossils by paleoanthropologists such as **Richard Leakey**.
- The lake supports rare species of fish, crocodiles, and is an essential stopover for migratory birds.
- It provides vital water and food resources for surrounding pastoral and fishing communities.

#### Human and Economic Dynamics Around the Lake:

The **Turkana region**, home to an estimated **1 million people**, relies on:

- Pastoralism (herding livestock),
- Fishing, and
- To a lesser degree, **small-scale agriculture**.

Despite its natural wealth, the area remains one of the **most underdeveloped regions** in Kenya.

#### **Challenges: A Volatile and Unpredictable Ecosystem**

Lake Turkana's **semi-saline nature**, combined with **unpredictable water levels** — which can **fluctuate by up to 8 meters per decade** — poses serious challenges for sustainable development.

• Past attempts to **industrialize the fishing industry** have largely **failed**, due to the **lake's capricious climate** and **limited ecological data**.

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- High evaporation, poor infrastructure, and remoteness hinder consistent economic growth.
- Seasonal and environmental stressors also threaten the **delicate balance of local ecosystems**.

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#### Additional Insight: Hydrological and Geopolitical Concern

- The **Ethiopian Gibe III Dam** on the Omo River has raised environmental concerns, potentially **reducing freshwater flow** into Lake Turkana.
- This reduction may accelerate salinization, affecting fish stocks and the livelihoods of local communities.
- **Climate change** is intensifying drought cycles, threatening both the **natural ecosystem** and **human survival** in the region.

#### Looking Forward: The Need for Integrated Conservation and Development

Efforts to ensure the **sustainable management** of Lake Turkana must focus on:

- Scientific monitoring of lake dynamics and biodiversity
- Community-led conservation programs
- Cross-border cooperation between Kenya and Ethiopia
- Promotion of **eco-tourism**, **heritage preservation**, and **adaptive livelihoods** in harmony with the region's ecological fragility

#### **Conclusion: A Lake of Paradoxes**

Lake Turkana is a **land of contrasts** — at once a site of **prehistoric revelations** and a region facing **modern environmental and developmental pressures**. Its preservation and sustainable use are not just a matter of national interest for Kenya, but a **global imperative** for **heritage, biodiversity, and climate resilience**.

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**GS Paper 3** – Environment and Ecology



#### Laughing Dove Spotted in Tamil Nadu: A Rare Beauty in the Wild

**Context:** In a delightful discovery for bird enthusiasts, an **uncommon, partially white Laughing Dove** was recently sighted in the **Nagamalai hillock forest near Nambiyur**, located in **Erode district, Tamil Nadu**. This rare sighting of a **color variation (partial leucism)** in a generally brown-feathered species highlights the region's rich biodiversity and the importance of habitat conservation in southern India.



#### About the Laughing Dove: A Symbol of Subtle Elegance

The Laughing Dove (*Spilopelia senegalensis*) is a small, long-tailed pigeon known for its gentle cooing call, which resembles laughter — earning it names like laughing turtle dove, palm dove, and Senegal dove. In India, it is affectionately called the "little brown dove."

#### Widespread Distribution Across Continents:

The Laughing Dove is native to vast regions across:

- Africa (especially sub-Saharan areas)
- The Middle East including Saudi Arabia, Iran, and Afghanistan
- South Asia such as Pakistan and India

#### It has also been observed in:

- Israel, Lebanon, Syria, the UAE, and Turkey (some populations may be introduced)
- Western Australia, where it was deliberately introduced

#### Preferred Habitat: Dry, Open Landscapes

Laughing Doves typically thrive in **semi-arid habitats**, including:

- Dry scrublands
- Semi-desert regions
- Cultivated areas and grasslands

They are most often seen **feeding in pairs** on the ground, quietly foraging for **seeds and small insects**.

#### **Physical Features: Graceful and Distinctive**

- Size: Around 25 cm long, with a slender build
- Coloration:
  - o Back, wings, and tail: Reddish-brown
  - Wing patches: Blue-grey
  - Underwings: Rich chestnut in flight
  - Head and underparts: Soft pinkish tones fading to white
- Throat: Decorated with black speckling
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- Legs: Bright red
- Juveniles: Appear more rufous with fewer throat spots

Unlike many pigeon species, Laughing Doves are **not highly social**. They are usually seen **alone or in pairs**, reflecting a more **solitary lifestyle**.

#### **Conservation Status: Least Concern, But Worth Watching**

According to the **IUCN Red List**, the Laughing Dove is listed as **'Least Concern'**, indicating a **stable global population**. However, **habitat loss**, **urban expansion**, and **climate variability** can pose future risks — especially in regions where natural landscapes are shrinking.

#### **Did You Know?**

- The **"laughing" sound** of this dove is a low, bubbling coo that sounds like a chuckle giving it its common name.
- The species has adapted well to **urban fringes**, and can sometimes be spotted in **parks and gardens**.
- **Leucism**, the partial white coloration seen in the Erode sighting, is a rare genetic condition that affects pigmentation, but not eyesight or survival, unlike albinism.

#### Conclusion: A Glimpse of Rare Beauty in Nature's Calm

The recent sighting of the **partially white Laughing Dove** in **Tamil Nadu** is a gentle reminder of the **hidden wonders** of our natural world. Though **common in many regions**, each encounter with this **charming, soft-voiced bird** brings a sense of peace and a deeper appreciation for India's rich avifauna.

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GS Paper 2 - Polity, Governance, and Constitution

Protecting Voting Rights in India: Upholding Democracy Through Law, Access, and Fairness

**Context:** In a significant move, the **Supreme Court of India recently** directed the Election Commission to allow Aadhaar, voter ID, and ration cards for updating the voter list in Bihar. The Court underscored that the right to vote lies at the heart of Indian democracy, reinforcing the nation's long-standing commitment to universal adult suffrage.



#### India's Unique Approach to Universal Voting Rights:

While many democracies evolved slowly towards voting equality, **India granted voting rights to all adults** from the very beginning — a bold step taken right after independence.

- In contrast, women in the UK were given equal voting rights only in **1928**. •
- In the United States, although women and Black citizens gained legal voting rights early, they • continued to face systemic obstacles for decades.

#### How India Made Voting Rights a Reality for All:

#### **Constitutional Foundation:**

- Article 326 of the Constitution provides for universal adult suffrage, allowing every citizen aged 18 and above to vote, regardless of gender, caste, religion, education, or property.
- The voting age was reduced from 21 to 18 by the 61st Constitutional Amendment in 1989, empowering millions of young Indians.

#### Legal Backing: Two Pillars of Electoral Law:

- 1. Representation of the People Act, 1950 Governs the creation and maintenance of electoral rolls.
- 2. Representation of the People Act, 1951 Deals with conduct of elections, qualifications, disqualifications, and election offences.

#### **Innovations to Ensure Inclusive Elections:**

To facilitate participation of over **173 million largely illiterate voters** during the first general election, Sukumar Sen, India's first Chief Election Commissioner, introduced visual election symbols — an innovation that empowered citizens to vote with dignity and understanding.

The **Election Commission of India (ECI)** has since made tireless efforts to reach every eligible voter, even in the most **remote and inaccessible regions**, ensuring that **democracy is lived and not just promised**.

#### Is Voting a Fundamental Right? Understanding the Legal Status

- Although voting is vital to democracy, the Supreme Court has consistently held it as a statutory • right under Section 62 of the Representation of the People Act, 1951.
- In Kuldip Nayar v. Union of India (2006), the Court clearly stated that voting is not a constitutional or fundamental right.
- While the **Rajbala v. State of Haryana (2016)** judgment viewed it as a **constitutional right**, the Kuldip Nayar ruling prevails as the larger bench decision.
- In Anoop Baranwal v. Union of India (2023), Justice Ajay Rastogi's dissenting opinion linked voting to Articles 19(1)(a) (freedom of expression) and 21 (right to life), but this was a minority view.

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Still, despite its **statutory status**, voting is seen as a **"democratic imperative"** — essential to the **health**, **legitimacy**, and future of Indian democracy.

#### Accuracy of Electoral Rolls: Foundation of Free Elections

A **clean and accurate electoral roll** ensures the principle of **"one person, one vote"**, making it a cornerstone of electoral fairness.

- Under the **Representation of the People Act, 1950**, the **ECI is empowered to update and correct voter lists regularly**.
- Inaccuracies like **mass deletions**, **duplicate entries**, or **inclusion of ineligible voters** can lead to **impersonation**, **disenfranchisement**, and **unfair outcomes**.
- The use of **multiple ID documents** like **Aadhaar, voter ID, and ration cards** helps ensure **greater inclusion and transparency**.

In the landmark case **Lakshmi Charan Sen v. A.K.M. Hassan Uzzaman (1985)**, the Court emphasized that **political parties share the responsibility** to verify the integrity of voter lists, particularly in a country with **widespread illiteracy**.

#### Who Can Be a Voter? Understanding Ordinary Residency

According to Article 324 of the Constitution and Section 19 of the RPA, 1950, anyone who is:

- An Indian citizen
- 18 years or older, and
- An **ordinary resident** of the constituency

is eligible to be registered as a voter.

#### What Does "Ordinary Resident" Mean?

- It refers to a **regular, genuine presence** in a locality not just a temporary stay.
- For example, a student living in a hostel may not qualify if their permanent residence is elsewhere.
- In Manmohan Singh v. Returning Officer (1991), the Court clarified that habitual residence is key, not just formal addresses.

This provision helps **prevent bogus entries** and ensures voters have a real connection to their constituency.

#### **Special Voter Categories and Overseas Voting:**

- **Postal ballots** are provided for:
  - Armed forces personnel
  - Government staff serving abroad
  - Election officials on duty
- **Overseas Indians** can register as voters under **Section 20A of the RPA**, but they must **vote in person** in their home constituency.

#### The Citizenship Verification Debate: The Bihar Context

In the ongoing **Special Summary Revision (SSR)** of electoral rolls in Bihar, **citizenship verification** has become a **contentious issue**.

#### **Key Legal Precedents:**

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- In Lal Babu Hussein v. Electoral Registration Officer (1995), the Supreme Court struck down arbitrary voter deletions, ruling that:
  - No one can be removed from voter rolls **without proper investigation**.
  - **Past voter lists** and official entries must be **respected**.
  - Authorities must act **in accordance with the Constitution and the Citizenship Act**, not based on **suspicion or hearsay**.
- The Md. Rahim Ali v. State of Bihar (2024) ruling reaffirmed these protections, warning against misuse of administrative discretion to suppress voting rights.

#### **Conclusion: Voting as a Lifeline of Indian Democracy**

Though classified as a **statutory right**, the **right to vote is sacred in Indian democracy**. It is the **most powerful instrument** citizens possess to shape governance, uphold justice, and hold leaders accountable.

To protect this right, India must:

- Keep voter rolls accurate and inclusive
- Ensure fair procedures in disputes over citizenship
- Facilitate access through simplified ID verification
- Continue legal and electoral reforms that uphold transparency and equity

In a diverse and populous democracy like India, safeguarding the vote is not just a legal obligation it is a national mission.

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GS Paper 3 – Environment and Ecology

Sierra Leone in the Spotlight: A Coastal Nation Facing Climate and Geopolitical Challenges

**Context: Context: Sierra Leone**, with its **capital at Freetown**, is a small yet strategically located country in **West Africa**, bordered by **Guinea to the north and east**, and **Liberia to the south**. Its **western coast opens to the Atlantic Ocean**, making it a maritime gateway and giving rise to its rich coastal ecosystems.

#### Nyangai and the Turtle Islands: Victims of Rising Seas

One of the nation's most vulnerable regions, **Nyangai**, situated in the **Turtle Islands off southern Sierra Leone**, is under growing threat. The island has **lost nearly two-thirds of its land area** due to **rising sea levels** — a stark indicator of the **climate crisis impacting coastal communities across the globe**.

- These islands are low-lying and ecologically fragile, home to fishing communities and traditional ways of life.
- With **coastal erosion and saltwater intrusion** on the rise, residents face displacement and loss of livelihoods.
- According to international climate studies, **West** Africa's coastal zones are among the fastest eroding in the world, posing a severe risk to island and delta populations.

#### Geopolitical Context and Regional Connections:

- **Location**: Nestled along the **western bulge of Africa**, Sierra Leone lies just north of the equator.
- Land Borders:
  - **Guinea** to the **north and northeast**
  - Liberia to the southeast
- Maritime Border: The vast Atlantic Ocean defines its entire western frontier, enhancing both trade potential and exposure to sea-level threats.

#### Natural Wealth and Resources:

Sierra Leone is endowed with abundant mineral resources, including:

- **Diamonds** historically significant, but also linked to the country's **civil conflict** in the 1990s.
- Gold, bauxite, and chromite
- Large deposits of **rutile**, a rich source of **titanium dioxide**, used in pigments, aerospace, and manufacturing.

These resources remain central to Sierra Leone's economy, though challenges such as **illegal mining**, **environmental degradation**, and **corruption** continue to hinder sustainable development.

#### **Climate Profile: A Land of Seasons**

Sierra Leone's **tropical climate** is marked by **distinct wet and dry seasons**:

- The **rainy season** typically lasts from **May to November**, bringing heavy monsoonal downpours.
- The **dry season**, from **December to April**, includes the **Harmattan winds**, which blow dust from the Sahara and reduce humidity.

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This climate sustains rich biodiversity but also increases the country's vulnerability to climate variability, floods, and agricultural instability.

#### **Did You Know?**

- **Freetown**, Sierra Leone's capital, was founded in the late 18th century as a settlement for **freed** • African slaves repatriated from the Americas and the UK.
- Sierra Leone was ranked among the top **10 countries most vulnerable to climate change** despite contributing minimally to global emissions.
- The country is part of ECOWAS (Economic Community of West African States) and plays a key role in ٠ regional peacekeeping and diplomacy.

#### **Conclusion: Rising Waters, Resilient Nation**

Sierra Leone's geographic beauty and resource richness are accompanied by serious climate and development challenges. The case of Nyangai's submergence is not just a local tragedy — it is a global warning. As the world grapples with rising seas and environmental shifts, coastal nations like Sierra Leone will need international support, climate justice, and resilient governance to protect both their people and their heritage.

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