



For success in a changing world

DAILY CURRENT AFFAIRS 24-12-2025

GS-1

1. Bhima River

GS-2

2. Right to Clean Environment

GS-3

3. India-New Zealand Relations
4. Kuttanad Wetland Agricultural System
5. GhostPairing

Bhima River

Syllabus: GS-1; Indian Geography – Rivers

Context

Recently, the **Karnataka government** urged the **Central government** to intervene over Maharashtra's excess use of **Bhima River water**.

About Bhima River

- It is a **perennial river** and the **largest tributary of the Krishna River**.
- **Origin:** Near Bhimashankar Temple in the Bhimashankar hills of the Western Ghats
- **Flowing States:** Maharashtra, Karnataka and Telangana
- **Confluence:** Joins the Krishna River in **Raichur district, Karnataka**

Drainage and Basin

- Drainage area bounded by:
 - Western Ghats (west)
 - Balaghat Range (north)
 - Mahadeo Hills (south)
- Total basin area: **48,631 sq km**
- About **75% of the basin lies in Maharashtra**
- Flows through a deeply entrenched valley with heavily populated banks

Major Tributaries

- **Right Bank:** Indrayani, Mula, Mutha, Pavana
- **Left Bank:** Sina, Nira

Spiritual Significance

- **Pandharpur**, a major pilgrimage centre, is located on the right bank of the Bhima River.



Right to Clean Environment

Syllabus: GS-2: Fundamental Rights & GS-3: Environmental Pollution

Context:

- Severe air pollution in **Delhi-NCR** has reignited debate on:
 - Recognising the **Right to a Healthy Environment** as an **explicit Fundamental Right**
- Administrative actions (school closures, work-from-home, GRAP tightening) reflect:
 - Growing acknowledgment of **environmental health as a governance issue**

Background: Environmental Degradation & Public Health

➤ **Recurring environmental crises** in India, especially in winters:

- Vehicular emissions
- Industrial pollution
- Fossil fuel combustion
- Construction dust
- Waste & stubble burning

➤ **Public health impacts:**

- Respiratory disorders (asthma, bronchitis)
- Cardiovascular diseases
- Reduced life expectancy

➤ **Highlights:**

- Weak enforcement
- Fragmented accountability
- Need for stronger legal backing



Particulate Matter (PM) & Health Risks

➤ **Particulate Matter (PM)** is the most harmful air pollutant:

- **PM10:** Enters respiratory tract
- **PM2.5:** Penetrates lungs & bloodstream

➤ **Diesel Particulate Matter (PM2.5 subtype):**

- Highly toxic
- Disproportionately affects children, elderly, and poor

➤ **Policy Response:**

- Strengthened **Graded Response Action Plan (GRAP)**
- School closures, traffic restrictions, staggered office timings

➤ Indicates shift from environmental concern → **public health emergency**

Constitutional Basis of Environmental Protection

(a) Article 21 – Judicial Expansion

- Constitution originally **did not explicitly guarantee environmental rights**
- Judiciary expanded **Right to Life (Article 21)** to include:
 - Right to clean air
 - Right to safe water
 - Right to live with dignity
- Landmark shift post **Maneka Gandhi case (1978)**

(b) Constitutional Duties

- **Article 48A (DPSP):**
 - Duty of State to protect and improve the environment
- **Article 51A(g) (Fundamental Duty):**
 - Duty of citizens to safeguard natural resources
- Together:
 - Create **shared constitutional responsibility**
 - But **not directly enforceable like Fundamental Rights**

Role of Judiciary & Public Interest Litigation (PIL)

- Post-1980s:
 - Rapid industrialisation & liberalisation increased environmental damage
- Judiciary's proactive role:
 - PILs under **Articles 32 & 226**
 - Relaxed locus standi
- Key contributions:
 - Balanced development with sustainability
 - Recognised environmental harm as a **rights violation**

- **Environment (Protection) Act, 1986:**
 - Defines environment as an interconnected system (air, water, land, living beings)
- Courts clarified:
 - Pollution-free environment is integral to **life with dignity**

Environmental Principles in Indian Jurisprudence

Indian courts adopted global environmental principles:

(a) Absolute Liability

- Industries handling hazardous substances:
 - Fully liable for damage
 - No exceptions or defences

(b) Precautionary Principle

- Preventive action even without scientific certainty
- Burden of proof on the developer/polluter

(c) Polluter Pays Principle

- Polluter bears:
 - Cost of damage
 - Cost of restoration
- Emphasises accountability & deterrence

Together reinforce **sustainable development**

Public Trust Doctrine & State Responsibility

- Natural resources:
 - Held by the **State in trust for the people**
- State:
 - Cannot alienate or degrade resources for private gain
- Linked with:
 - **Article 39** – equitable distribution of material resources
- Reinforces:
 - Inter-generational equity
 - Collective ownership of ecological commons

Climate Change & Expanding Environmental Rights

- Judiciary increasingly recognises:
 - Climate change as a **rights issue**
- Protection from adverse climate effects:
 - Read into **Article 21 (life)** and **Article 14 (equality)**
- Signals:
 - Evolution of **environmental constitutionalism**
 - Shift from pollution control → climate justice

Need for Explicit Constitutional Recognition

Limitations of Current Framework

- Environmental rights:
 - Derived, not explicitly stated
 - Dependent on judicial interpretation
- Enforcement challenges:
 - DPSPs not justiciable
 - Fundamental Duties non-enforceable

Case for Explicit Fundamental Right

- Benefits:
 - Clear State accountability
 - Stronger legal enforceability
 - Citizen empowerment
 - Better climate & environmental governance
- Relevance:
 - Climate uncertainty
 - Urban health crises
 - Inter-generational justice

Way Forward

- Constitutional amendment recognising **Right to Healthy Environment**
- Strengthen institutions like CAQM with accountability

- Integrate environment–health–urban planning
- Shift from reactive to preventive governance
- Promote citizen participation & environmental federalism

India-New Zealand Relations

Syllabus: GS-3: Indian Economy – Free Trade Agreements & GS-2: Bilateral Relations.

Context:

- India and New Zealand have **concluded negotiations on a Free Trade Agreement (FTA)**.
- **Formal signing** expected in **first half of 2026**.
- Targets:
 - **Tariff-free access** for Indian exports to New Zealand.
 - **\$20 billion investment** from New Zealand over **15 years**.
 - **Doubling bilateral trade to \$5 billion** within five years.



India-New Zealand Bilateral Relations

- Diplomatic relations established in **1952**.
- Shared foundations:
 - Commonwealth membership
 - Common law traditions
 - Democratic governance
- Strong **soft power linkages**:
 - Sports (cricket, hockey)
 - Mountaineering heritage (Sir Edmund Hillary)
 - Tourism and cultural exchanges

Strategic Vision & Policy Frameworks

- New Zealand identified India as a priority partner through:
 - Opening Doors to India (2011)
 - NZ Inc. India Strategy
- **India-NZ 2025: Investing in the Relationship**
 - Emphasises political trust, economic cooperation, and people-centric ties.
 - Signals shift from transactional to **strategic partnership**.

Trade & Economic Relations

- New Zealand: **11th largest two-way trading partner** of India.
- **Bilateral trade (2023-24): US\$ 1.75 billion.**
- **Key sectors:**
 - Education, tourism, dairy, food processing
 - Pharmaceuticals, renewable energy, critical minerals

India's Exports to NZ

- Pharmaceuticals
- Precious metals & gems
- Textiles and apparel
- Motor vehicles

India's Imports from NZ

- Logs and forestry products
- Wool
- Edible fruits & nuts

India-New Zealand FTA: Key Highlights

- Negotiations launched: **March 2025**
- Finalised in **record nine months**, indicating high political will.
- Scope goes **beyond trade** to include:
 - Defence
 - Education
 - Innovation

- Sports
- People-to-people ties

Tariff Liberalisation

- **95% of New Zealand exports:** tariffs eliminated or reduced.
- **57% duty-free access** from day one → **82% on full implementation.**
- **Sensitive sectors protected by India:**
 - Dairy, onions, sugar, spices
 - Edible oils, rubber
 - Rice, wheat, soya

Investment & Sectoral Gains

- **\$20 billion NZ investment** in India (15 years).
- Healthcare annex:
 - First such agreement signed by New Zealand with any country.
 - Covers **health services and traditional medicine (AYUSH)**.
- Expected boost to:
 - Apparel, leather, textiles
 - Rubber, footwear, home décor
 - Automobiles, machinery, electronics, pharmaceuticals

Mobility & Services Trade

- **5,000 temporary employment visas annually** for Indian professionals.
 - Valid for **up to three years.**
- Market access:
 - 118 services sectors
 - MFN status in 139 sectors
- Key service areas:
 - IT, engineering, healthcare
 - Education, construction
 - AYUSH practitioners, yoga instructors, chefs, music teachers

MFN (Most Favoured Nation): WTO principle ensuring non-discriminatory trade treatment among members.

Defence & Maritime Cooperation

- Growing defence engagement:
 - Regular Indian Navy ship visits and port calls.
 - Naval leadership-level exchanges.
- Cooperation under **Combined Task Force-150**:
 - New Zealand leads; India contributes naval personnel.
- Supports **maritime security** and **Indo-Pacific stability**.

Education & Knowledge Partnerships

- India is **2nd largest source** of international students in New Zealand (~8,000).
- Key collaborations:
 - **NZ Centre at IIT Delhi**
 - Joint research in cancer, robotics, cybersecurity, waste management, medical technology
 - Education cooperation with **GIFT City** and **IIM Ahmedabad**

People-to-People & Cultural Ties

- Indian-origin population in New Zealand: **~2.92 lakh**.
- **Hindi**: fifth most spoken language.
- Vibrant Indian festivals, cultural institutions, and sports connections.

Way Forward

- Translate FTA commitments into **actual trade diversification**.
- Balance market access with **protection of vulnerable sectors**.
- Leverage services mobility and education ties for **knowledge-driven growth**.
- Strengthen Indo-Pacific cooperation through **economic-security convergence**.

Kuttanad Wetland Agricultural System

Syllabus: GS-3; Agriculture, Environmental Conservation

Context

Recently, soil tests in the Kuttanad paddy fields, which are part of the Kuttanad Wetland Agricultural System in Kerala, showed increased levels of aluminium concentration in the soil.

About Kuttanad Wetland Agricultural System

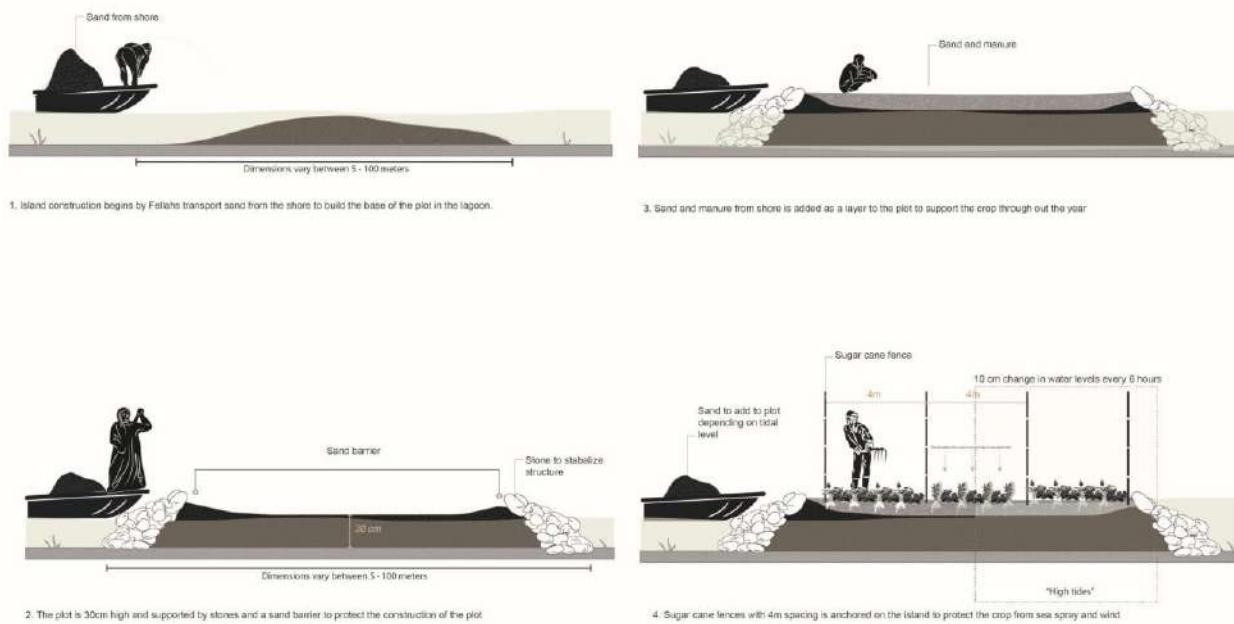
- It is unique and the **only agricultural system in India that supports rice cultivation below sea level.**
- The Kuttanad system is a complex mosaic of fragmented agricultural landscapes divided into three structures:
 - **Wetlands** used for paddy cultivation and fish catching
 - **Garden lands** used for coconut, tubers and food crop plantations
 - **Water areas** used for inland fishing and shell collection

Recognition

- The Kuttanad Below Sea-Level Farming System is recognised under **Globally Important Agricultural Heritage Systems (GIAHS)** of the **Food and Agriculture Organization (FAO)**.

Impact of Aluminium on Soil and Plants

- Aluminium becomes more soluble and toxic as soil **pH drops below 5**.
- Excess aluminium damages plant root systems.
- It interferes with absorption of essential nutrients such as **phosphorus, calcium, potassium and magnesium**.



Key Facts about Globally Important Agricultural Heritage Systems (GIAHS)

- GIAHS is an FAO programme launched at the **World Summit for Sustainable Development (2002)**.
- It aims to balance **conservation, sustainable adaptation and socio-economic development**.

India's GIAHS Sites

- **Koraput region (Odisha):** Subsistence paddy cultivation on highland slopes
- **Kuttanad system (Kerala):** Below-sea-level farming landscape
- **Saffron Park of Kashmir:** Traditional saffron-based agro-pastoral system

GhostPairing

Syllabus: GS-3; Cyber Security, Awareness in IT

Context

Recently, the **Indian Computer Emergency Response Team (CERT-In)** issued an advisory about an active cyber threat campaign targeting WhatsApp users using a new technique called **GhostPairing**.

About GhostPairing

- GhostPairing is a type of WhatsApp attack where hackers secretly link their device to a victim's WhatsApp account.
- It provides attackers with near-complete access without the victim noticing.
- It allows account takeover **without passwords or SIM swaps**.
- Victims are tricked into entering pairing codes, granting unauthorised access.

Modus Operandi of GhostPairing

- Victims receive a message from a trusted contact saying: "*Hi, check this photo*".
- The message contains a link with a Facebook-style preview.
- The link redirects to a fake Facebook viewer asking users to "verify" to view content.
- Victims are prompted to enter their phone number and pairing code.
- This unknowingly links the attacker's device to the victim's WhatsApp account.