

PrepAlpine

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DAILY CURRENT AFFAIRS DATED 16.03.2026

GS Paper II: Current Affairs

1. U.S. Section 301 Investigations on India

a. Introduction

Recent investigations initiated by the United States under Section 301 of its Trade Act have brought India into focus within the global trade debate. These are not just legal exercises but reflect a broader trend where countries use trade policy as a strategic tool.

For India, the issue is important because it affects bilateral trade relations with the U.S., raises concerns about protectionism, and impacts key export sectors.

Current Section 301 Investigations on India

<h4>Excess Capacity</h4> <p>Overproduction → exports at low prices</p> <p>Sectors:</p> <ul style="list-style-type: none">• Steel• Petrochemicals• Solar Modules• Textiles <p>Concern: Price undercutting, job losses</p>	<h4>Forced Labour</h4> <p>Labour standards scrutiny</p>  <p>Concern: Cost advantage due to weak safeguards</p>
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Linked to global trend: **TRADE + LABOUR COMPLIANCE**

b. Understanding Section 301

What is Section 301?

- A provision under the U.S. Trade Act of 1974
- Allows the U.S. to investigate unfair or discriminatory trade practices
- Applies if such practices harm U.S. commerce

Powers under Section 301

- Impose higher import duties (tariffs)
- Restrict imports of certain goods
- Take retaliatory trade actions

Unilateral Nature

- Unlike WTO mechanisms, it is unilateral
- U.S. can act without waiting for international rulings

Example

- Widely used during U.S.–China trade war for tariff imposition

c. Nature of the Current Investigations

The U.S. has launched two major investigations concerning India.

Investigation on Excess Capacity

- Concern: Production exceeds domestic demand
- Surplus goods exported at lower prices
- May harm U.S. industries
- Sectors involved:
 - Steel
 - Petrochemicals
 - Solar modules
 - Textiles
- U.S. concern:
 - Price undercutting
 - Potential job losses

Investigation on Forced Labour

- Examines whether India ensures adequate labour standards
- Focus on prevention of forced labour practices
- Key issue:
 - Lower labour costs may create unfair advantage
- Broader trend:
 - Linking labour standards with trade access

These investigations are not isolated—they are closely linked with the evolving tariff policy of the United States.

d. Link with Current Tariff Policy

Timing of Investigations

- U.S. has shifted to a temporary global tariff regime
- Investigations are occurring during this interim period

Strategic Use

- Findings will be ready when temporary tariffs expire
- Provide legal justification for future tariffs

Function of Section 301

- Not just investigative
- Also a tool to legitimise trade restrictions

Section 301 acts as both a diagnostic tool and a policy weapon.

e. Strategic Rationale behind U.S. Actions

Protection of Domestic Industry

- Shield industries from global competition
- Especially in sectors with oversupply

Addressing Trade Deficits

- Reduce imbalance with countries like India

Supply Chain Reconfiguration

- Reduce dependence on specific regions
- Promote domestic manufacturing

Geopolitical Leverage

- Use trade as a strategic pressure tool
- Influence partner countries' policies

While these actions serve U.S. interests, they raise important concerns for India.

f. India's Position and Concerns

Trade Imbalance Issue

- India has a trade surplus with the U.S.
- Attracts scrutiny in protectionist environments

Sectoral Impact

- Textiles — increased competition barriers
- Steel & metals — higher tariffs
- Automobile components — reduced access
- Solar & manufacturing sectors — pressure

Policy Uncertainty

- Frequent tariff changes disrupt business planning
- Affects investment decisions

Even if immediate impact is limited, long-term risks are significant.

This situation reflects a larger transformation in the global trade system.

g. Analytical Assessment

Changing Nature of Global Trade

- Shift from free trade to strategic protectionism
- Rise of unilateral actions

Implications for the U.S.

- Gains flexibility in quick decision-making
- Avoids lengthy WTO processes

Implications for India

- Concerns about fairness and predictability
- Increased vulnerability to unilateral actions

Excessive protectionism can undermine the global trading system.

In this evolving environment, India must adopt a calibrated and forward-looking strategy.

h. Way Forward for India

Diversification of Export Markets

- Reduce dependence on U.S.
- Expand trade with Europe, ASEAN, Africa

Enhance Competitiveness

- Improve productivity and technology
- Move up the value chain

Strengthen Labour Standards

- Ensure compliance with global norms
- Improve credibility of exports

Diplomatic Engagement

- Continuous dialogue with U.S.
- Prevent escalation into trade conflict

These steps can help India adapt to the new realities of global trade while protecting its economic interests.

Conclusion

The Section 301 investigations by the United States reflect a broader shift towards strategic and protectionist trade policies. While the immediate impact on India may be limited, the potential for future tariffs presents a significant challenge.

India must respond with a combination of economic resilience, policy reform, and diplomatic engagement. By strengthening competitiveness, diversifying markets, and ensuring compliance with global standards, India can safeguard its position in an increasingly complex global trade environment.

GS Paper II: Current Affairs

2. Fertiliser Sector in India: Issues and Reforms

a. Introduction

Fertilisers are a backbone of India's agricultural system because they directly affect crop productivity and food security. Since the Green Revolution, their use has helped India feed a large population.

However, over time, several structural problems have emerged—such as high import dependence, rising subsidy burden, and inefficient usage patterns. Recent global disruptions have further exposed these weaknesses, making reforms necessary.

b. Importance of the Fertiliser Sector

Role in Agriculture

- Provide essential nutrients (N, P, K) to soil
- Improve crop growth and yield
- Ensure efficient farming

Link with Food Security

- Higher fertiliser use — higher productivity
- Supports feeding a large population

- Prevents food shortages and price rise

Economic and Social Significance

- Supports farmer income
- Ensures rural livelihood stability
- Contributes to overall economic stability

Despite its importance, the fertiliser sector faces deep structural issues that reduce its efficiency and sustainability.

c. Structural Issues in the Fertiliser Sector

High Import Dependence

- Heavy reliance on global markets
- Phosphatic fertilisers — highly import-dependent
- Potash — almost fully imported
- Risk: Exposure to global price shocks and supply disruptions

Dependence on Natural Gas

- Urea production depends on natural gas
- India imports large amounts of LNG
- Impact: Rising gas prices — higher fertiliser cost

Geopolitical Vulnerability

- Imports concentrated in Gulf region
- Dependence on routes like Strait of Hormuz
- Risk: Conflict or disruption — supply crisis

High Subsidy Burden

- Fertilisers sold at controlled prices
- Subsidy bill often exceeds ₹2 lakh crore
- Impact: Heavy pressure on government finances

Imbalanced Fertiliser Use

- Excess use of urea (nitrogen)
- Underuse of phosphorus and potassium
- Result: Soil degradation and reduced productivity

Inefficient Subsidy System

- Subsidy given to companies, not farmers
- Leads to leakages and overuse

These issues are interconnected and create a deeper structural problem within the system.

d. Core Structural Challenge

Vicious Cycle in the Sector

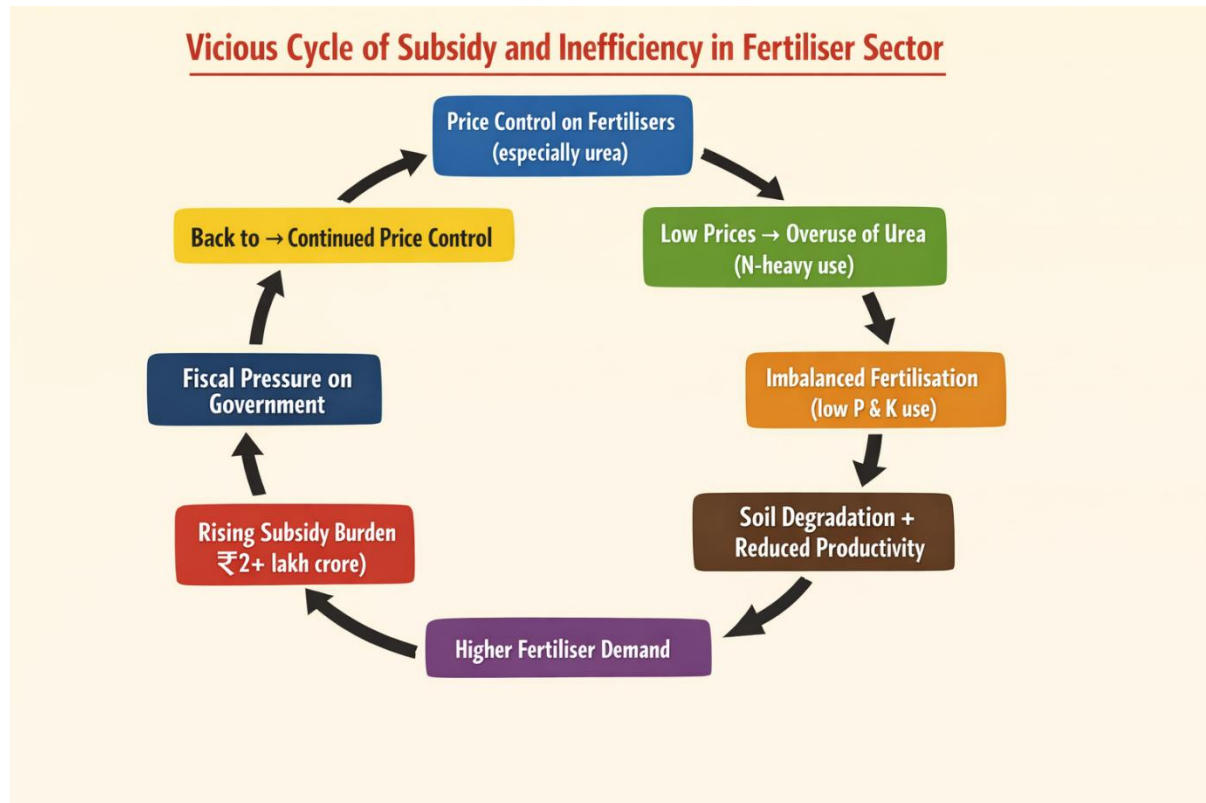
- Price control → cheap fertilisers
- Cheap fertilisers → overuse (especially urea)
- Overuse → higher subsidy burden
- High subsidy → fiscal pressure

Resulting Problems

- Economic inefficiency
- Environmental degradation
- Continued import dependence

The fertiliser sector is trapped in a cycle of subsidy, overuse, and inefficiency.

Breaking this cycle requires well-designed reforms targeting both supply and demand.



e. Key Areas of Reform

Reducing Import Dependence

- Diversify import sources
- Invest in overseas fertiliser assets
- Expand domestic production

Reforming the Subsidy System

- Shift to Direct Benefit Transfer (DBT)
- Provide subsidy directly to farmers
- Benefit: Better targeting and reduced leakages

Price Rationalisation

- Gradual deregulation of urea prices
- Reduce artificial price distortions

Nutrient-Based Subsidy (NBS) Reform

- Currently applies to P & K fertilisers
- Extend NBS to urea
- Outcome: Balanced use of N, P, K nutrients

Use of Technology

- Digital databases for farmers
- Targeted fertiliser distribution
- Reduce overuse

Promotion of Alternatives

- Biofertilisers
- Organic farming
- Nano-urea

These reforms must be implemented together, not in isolation.

f. Two-Dimensional Reform Strategy

Supply-Side Reforms

- Secure imports
- Boost domestic production
- Invest globally

Demand-Side Reforms

- Rationalise subsidies
- Correct price distortions
- Promote balanced fertiliser use

Only a combined supply and demand approach can ensure long-term sustainability.

However, implementing these reforms requires careful consideration of multiple factors.

g. Analytical Perspective

Why Reform is Necessary

- Ensure food security
- Reduce fiscal burden
- Protect soil health
- Enhance strategic resilience

Challenges in Reform

- Politically sensitive pricing
- Impact on farmers
- Need for strong DBT infrastructure
- Global price volatility

Given these challenges, reforms must be gradual and carefully designed.

h. Way Forward

Phased DBT Implementation

- Gradual transition
- Protect farmers during change

Bring Urea under NBS

- Promote balanced fertilisation
- Reduce subsidy distortions

Diversify Imports

- Reduce geopolitical risk
- Strengthen supply security

Promote Sustainable Practices

- Encourage organic and biofertilisers
- Raise farmer awareness

Strengthen Infrastructure

- Storage and logistics
- Efficient distribution networks

These steps can help transform the fertiliser sector into a more efficient and resilient system.

Conclusion

India's fertiliser sector is at a critical turning point. While it has ensured food security, it now suffers from inefficiencies, fiscal stress, and environmental concerns.

A balanced reform strategy—combining subsidy reform, supply diversification, and sustainable practices—is essential. With gradual and well-planned reforms, India can achieve food security, fiscal discipline, and environmental sustainability simultaneously.

India's fertiliser sector needs structural reforms that balance affordability with efficiency, ensuring food security while reducing fiscal burden and promoting sustainable agriculture.

GS Paper III: Science and Technology

3. Thorium-Based Nuclear Energy in India and the SHANTI Act

a. Introduction

India's energy challenge is not just about increasing electricity generation, but also about ensuring long-term energy security, reducing import dependence, and adopting sustainable sources.

Nuclear energy plays a key role because it provides reliable and low-carbon power. However, India faces a major limitation—limited uranium reserves.

In contrast, India has abundant thorium reserves, which has shaped its long-term nuclear vision. Policy initiatives like the SHANTI Act aim to accelerate this transition by promoting innovation and wider participation in the nuclear sector.

b. Limitations of Uranium-Based Energy

Limited Domestic Availability

- India has low and limited uranium reserves
- Extraction is difficult due to poor ore quality

High Import Dependence

- Significant reliance on imported uranium
- Exposure to global supply risks and price fluctuations

Unsustainable for Future Expansion

- India plans major nuclear capacity expansion
- Long-term uranium supply may not be sufficient

A uranium-dependent model cannot support India's long-term energy needs.

This limitation makes thorium an attractive alternative aligned with India's resource strengths.

c. Significance of Thorium for India

Abundant Domestic Resource

- Large thorium reserves, especially in coastal areas
- Ensures long-term availability

Energy Security

- Reduces dependence on imports
- Enhances strategic autonomy

Safety and Proliferation Advantages

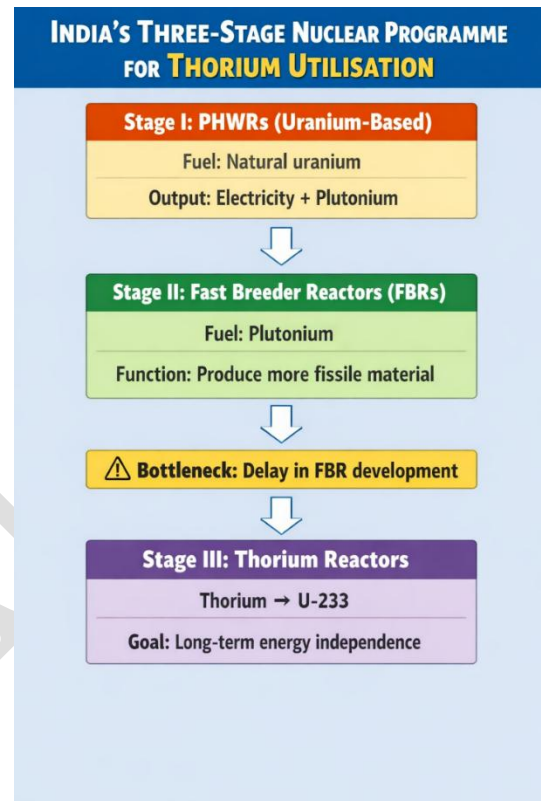
- Produces fewer long-lived radioactive wastes
- Less suitable for weaponisation

Sustainable Energy Pathway

- Supports long-term clean energy goals
- Aligns with environmental sustainability

Thorium is India's natural advantage for future nuclear energy.

To utilise thorium effectively, India has designed a structured three-stage nuclear programme.



d. India's Three-Stage Nuclear Programme

Stage I: PHWRs (Uranium-Based)

- Use natural uranium
- Produce plutonium as a by-product

Stage II: Fast Breeder Reactors (FBRs)

- Use plutonium
- Generate more fissile material

Stage III: Thorium-Based Reactors

- Convert thorium into Uranium-233
- Enable long-term energy production

This programme is designed to gradually shift from uranium to thorium.

However, progress towards the thorium stage has been slower than expected.

e. Core Challenge in the Transition

Delay in Fast Breeder Reactors

- FBRs are essential for thorium transition
- Slow development delays Stage III

Continued Uranium Dependence

- India remains reliant on uranium
- Affects long-term energy security

The transition bottleneck lies in Stage II (FBRs).

To overcome these challenges, policy interventions like the SHANTI Act have been introduced.

f. Role of the SHANTI Act

Objective

- Open nuclear sector to private players and institutions
- Promote innovation and investment

Shift from State-Dominated Model

- Earlier: Limited participation
- Now: Ecosystem-based approach

Expected Benefits

- Faster technological development
- Increased investment
- Better collaboration

SHANTI Act aims to accelerate nuclear innovation through wider participation.

Along with institutional reforms, technological pathways are equally important for thorium transition.

g. Key Pathways for Thorium Transition

Fast Breeder Reactors (FBRs)

- Critical bridge to thorium stage
- Produce required fissile material

Hybrid Fuel Approaches

- Combine uranium with thorium
- Enable partial thorium use in existing reactors

Fuel Recycling

- Reprocess spent fuel
- Improve efficiency and reduce waste

Advanced Reactor Technologies

- Molten Salt Reactors
- Small Modular Reactors
- Benefits: Better safety, flexibility, and thorium compatibility

International Cooperation

- Collaborate on R&D and technology

- Maintain strategic autonomy

These pathways need to be integrated into a structured and phased strategy.

h. Integrated Strategy for Transition

Short-Term

- Expand uranium-based reactors
- Meet immediate energy demand

Medium-Term

- Deploy FBRs
- Test hybrid fuels

Long-Term

- Develop full-scale thorium reactors
- Use advanced technologies

A phased transition ensures both energy security and sustainability.

i. Analytical Perspective

Advantages

- Enhances energy independence
- Reduces import dependence
- Supports climate goals
- Positions India as a global leader in nuclear technology

Challenges

- Technological complexity
- High financial cost
- Long gestation period
- Global competition

Thorium transition is high-reward but high-effort.

To realise its potential, a clear and focused policy direction is required.

j. Way Forward

Accelerate FBR Development

- Complete ongoing projects
- Expand capacity

Promote Pilot Projects

- Test hybrid fuels
- Ensure safety compliance

Invest in Advanced Technologies

- Focus on innovative reactor designs
- Build domestic expertise

Strengthen Fuel Recycling

- Improve reprocessing capabilities
- Support closed fuel cycle

Effective Implementation of SHANTI Act

- Encourage private participation
- Build research-industry ecosystem

Strategic International Collaboration

- Share knowledge and reduce costs
- Protect national interests

These steps can enable India to gradually realise its thorium-based energy vision.

Conclusion

Thorium-based nuclear energy offers India a unique opportunity to achieve long-term energy security and sustainability. While the transition is complex and time-intensive, it aligns perfectly with India's resource strengths.

The SHANTI Act provides an important institutional push by encouraging innovation and broader participation. With a phased, balanced, and well-coordinated strategy, India can build a self-reliant and resilient nuclear energy future.

GS Paper III: Environment

4. Water-Centric Climate Resilience: Concept, Challenges and Strategy for India

a. Introduction

Climate change is increasingly experienced not just as rising temperatures, but through disruptions in the water cycle—such as floods, droughts, erratic rainfall, and groundwater depletion.

For India, where agriculture, livelihoods, and ecosystems are deeply dependent on water, managing water effectively equals managing climate risks. Therefore, water-centric resilience is not just a sectoral issue but a core strategy for sustainable development.

b. Why Water is Central to Climate Change

Water as the Medium of Climate Impacts

- Floods → damage infrastructure and displace people
- Droughts → reduce agricultural output
- Erratic rainfall → disrupt crop planning

Long-Term Risks

- Himalayan glacial melt → threatens river systems
- Saline intrusion → reduces freshwater availability

Water–Food–Climate Nexus

- Agriculture depends heavily on water
- Agriculture also contributes to emissions (methane)
- Therefore: Water management is key for both adaptation and mitigation

Most climate risks are experienced through water systems.

This understanding has led to a shift in how climate resilience itself is conceptualised.

c. Changing Understanding of Climate Resilience

Traditional Approach

- Focus on building infrastructure
- Dams, canals, irrigation systems

Modern Approach

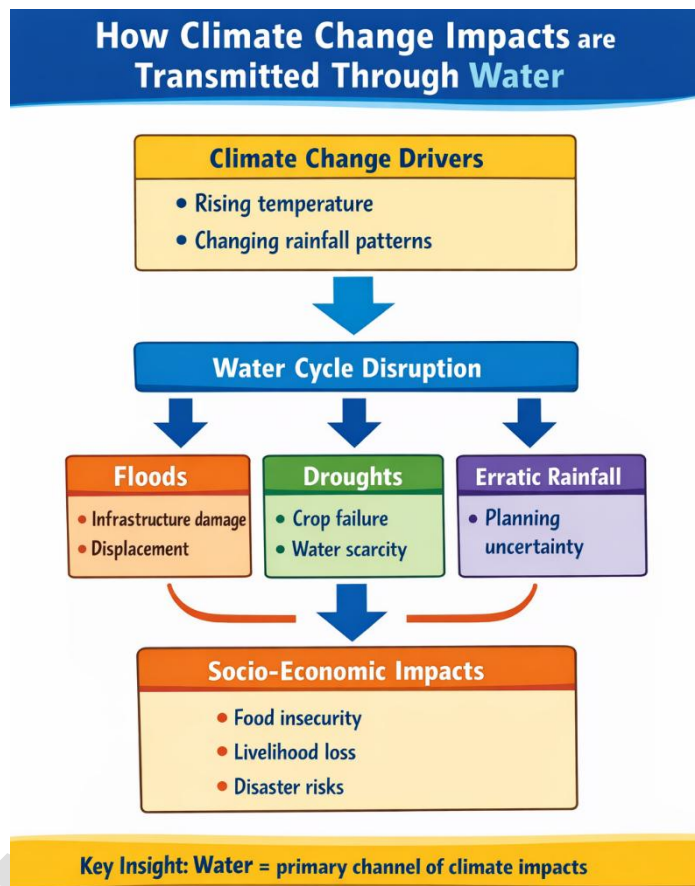
- Focus on system performance under stress
- Can systems function during floods, droughts, uncertainty?

Key Shift

- From asset creation to system resilience
- From static planning to adaptive systems

Resilience today means systems that continue working despite shocks.

This system-based thinking requires identifying the core components of water-centric resilience.



d. Key Components of Water-Centric Resilience

Water Availability

- Efficient use and conservation
- Groundwater recharge

Disaster Preparedness

- Flood management systems
- Drought preparedness

Universal Access

- Safe drinking water
- Sanitation services

Risk Governance

- Early warning systems
- Climate vulnerability assessments
- Institutional coordination

India already has several strengths that can support these components.

e. India's Existing Strengths

Institutional Integration

- Ministry of Jal Shakti
- Unified water governance

Scientific and Data Capacity

- Aquifer mapping
- Weather and water datasets

Policy and Programme Base

- Drinking water and irrigation missions
- River rejuvenation programmes
- Climate action plans

Digital Infrastructure

- Large-scale data systems
- Potential for real-time decision-making

India has a strong foundation, but lacks integration.

f. Major Challenges

Water Scarcity

- Uneven regional distribution
- Over-extraction of groundwater

High Disaster Vulnerability

- Majority of disasters are water-related

Fragmented Governance

- Multiple schemes without coordination
- Duplication and inefficiency

Weak Data Integration

- Data exists but is not fully utilised
- Limited real-time decision-making

Financing Constraints

- Water projects seen as sectoral spending
- Not treated as climate investments

These challenges point towards a deeper conceptual shift required in policy thinking.

g. Core Concept: From Infrastructure to System Resilience

Limitation of Infrastructure Approach

- Infrastructure alone cannot handle extreme events
- Systems may fail despite physical assets

System-Based Resilience

- Focus on continuous functioning
- Combine infrastructure, governance and technology

True resilience is a system that work during crisis, not just assets that exist

To achieve this, targeted reforms across sectors are necessary.

h. Key Reform Areas

Cross-Sectoral Integration

- Link water with agriculture, urban planning, disaster management

Climate-Proof Infrastructure

- Design systems for extreme weather events

Digital Integration

- Combine weather, water, and agricultural data
- Enable real-time decision-making

Strengthen Early Warning Systems

- Expand coverage
- Improve disaster preparedness

Financing Reform

- Treat water projects as climate investments
- Increase funding

Convergence of Schemes

- Align existing missions
- Reduce duplication

Such reforms position India to take advantage of a unique global opportunity.

i. India's Opportunity

Leadership Potential

- Large-scale programme experience
- Strong digital capacity

Relevance for Global South

- Similar challenges in developing countries
- Scope to create scalable models

India can become a global leader in water-centric resilience.

However, success depends on effective implementation and coordination.

j. Analytical Perspective

Benefits

- Strengthens food security
- Reduces disaster risks

- Supports sustainable development
- Enhances climate adaptation

Challenges

- Implementation gaps
- Institutional coordination issues
- Financing limitations

Good policy must be matched by strong execution.

This requires a clear and focused policy direction going forward.

k. Way Forward

Mainstream Water in Climate Policy

- Place water at the centre of planning

Strengthen System-Based Approach

- Focus on resilience, not just infrastructure

Improve Data and Governance Integration

- Enable coordinated and real-time action

Enhance Financing

- Prioritise water as a climate investment

Promote Local-Level Solutions

- Decentralised planning
- Context-specific interventions

Conclusion

In the era of climate change, resilience is defined not by how much infrastructure is built, but by how well systems function under stress. Since most climate impacts are transmitted through water, it must be placed at the centre of policy.

A water-centric approach allows India to simultaneously address food security, disaster management, and sustainability, while also emerging as a global model for climate resilience.

Reader's Note — About This Current Affairs Compilation

Dear Aspirant,

This document is part of the PrepAlpine Current Affairs Series — designed to bring clarity, structure, and precision to your daily UPSC learning.

While every effort has been made to balance depth with brevity, please keep the following in mind:

1. Orientation & Purpose

This compilation is curated primarily from the UPSC Mains perspective — with emphasis on conceptual clarity, analytical depth, and interlinkages across GS papers.

However, the PrepAlpine team is simultaneously developing a dedicated Prelims-focused Current Affairs Series, designed for:

- factual coverage
- data recall
- Prelims-style MCQs
- objective pattern analysis

This Prelims Edition will be released separately as a standalone publication.

2. Content Length

Some sections may feel shorter or longer depending on topic relevance and news density. To fit your personal preference, you may freely resize or summarize sections using any LLM tool (ChatGPT, Gemini, Claude, etc.) at your convenience.

3. Format Flexibility

The formatting combines:

- paragraphs
- lists
- tables
- visual cues

—all optimised for retention.

If you prefer a specific style (lists → paras, paras → tables, etc.), feel free to convert using any free LLM.

4. Monthly Current Affairs Release

The complete Monthly Current Affairs Module will be released soon, optimized to a compact 100–150 pages — comprehensive yet concise, exam-ready, and revision-efficient.

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