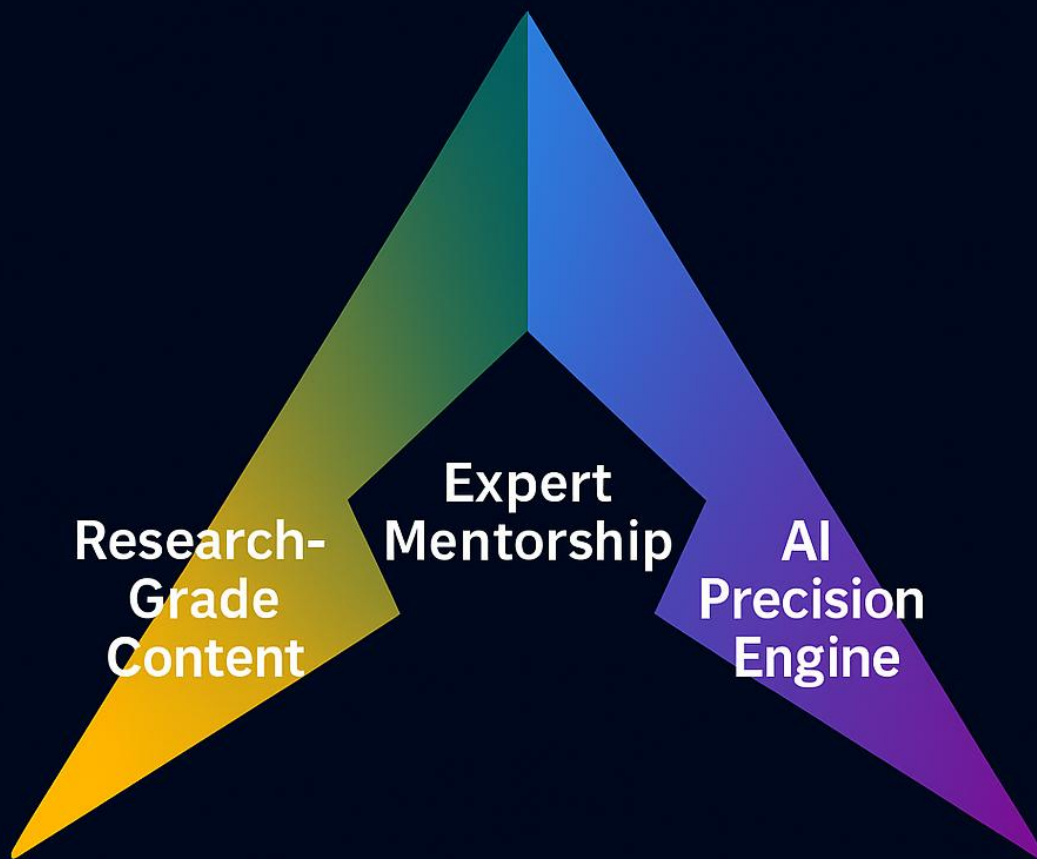


PrepAlpine

The Next-Generation UPSC Institution

Where Research Meets Mentorship & Precision



Preparation Meets Precision

A Next-Generation Learning Institution

Copyright © 2025 PrepAlpine

All Rights Reserved

No part of this publication may be reproduced, distributed, or transmitted in any form or by any means—whether photocopying, recording, or other electronic or mechanical methods—without the prior written permission of the publisher, except in the case of brief quotations embodied in critical reviews and certain non-commercial uses permitted by copyright law.

For permission requests, please write to:

PrepAlpine

Email: info@PrepAlpine.com

Website: PrepAlpine.com

Disclaimer

The information contained in this book has been prepared solely for educational purposes. While every effort has been made to ensure accuracy, PrepAlpine makes no representations or warranties of any kind and accepts no liability for any errors or omissions. The use of any content is solely at the reader's discretion and risk.

DAILY CURRENT AFFAIRS DATED 01.07.2026

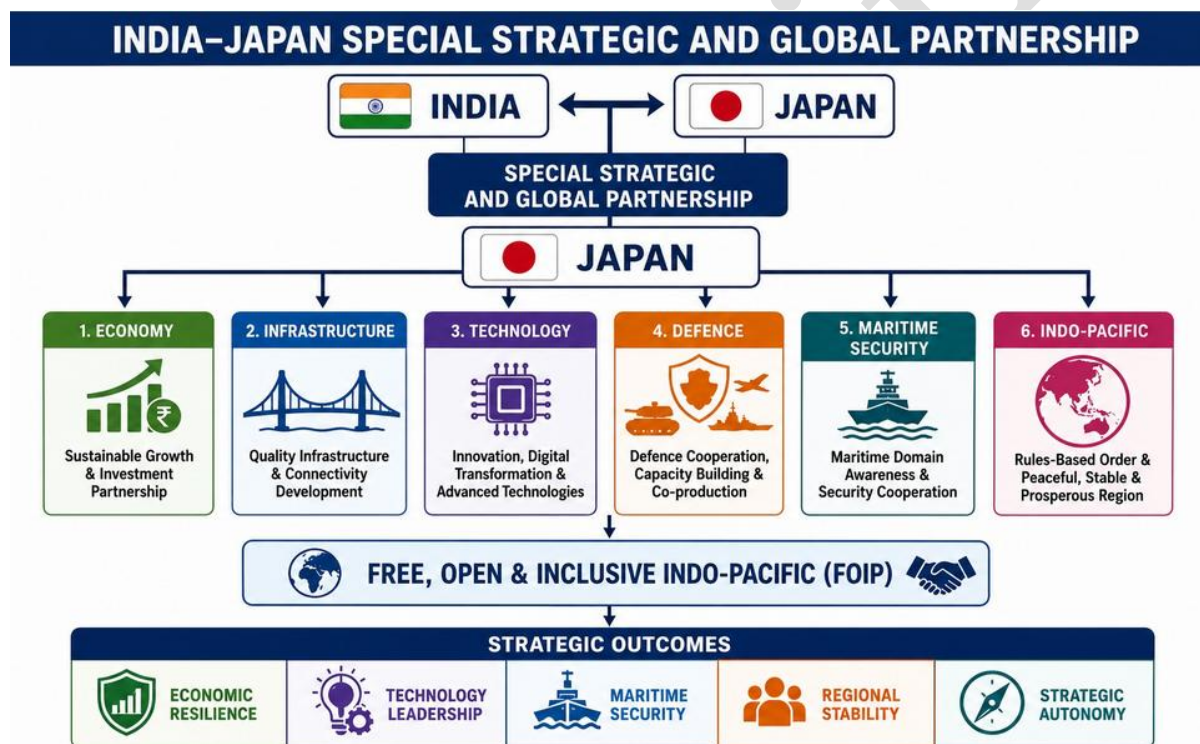
GS Paper II: International Relations

1. India–Japan Relations: Strengthening Strategic and Economic Partnership

a. Introduction

India and Japan share a Special Strategic and Global Partnership founded on democracy, the rule of law, respect for international law and a common vision of a Free, Open and Inclusive Indo-Pacific (FOIP). Over the past two decades, bilateral relations have evolved from a predominantly economic partnership into a comprehensive strategic relationship encompassing defence, maritime security, advanced technology, resilient supply chains and regional connectivity.

The visit of Japanese Prime Minister Sanae Takaichi to India for the 16th India–Japan Annual Summit reflects the growing importance of the partnership in an era marked by geopolitical competition, technological transformation and supply-chain realignment. The summit focuses on strengthening cooperation in trade, investment, technology, infrastructure and Indo-Pacific security.



b. Background Context

Diplomatic relations between India and Japan have steadily deepened since the beginning of the twenty-first century. Japan has emerged as one of India's most important development partners through Official Development Assistance (ODA), long-term infrastructure financing, technology transfer and capacity-building initiatives.

The partnership has acquired greater strategic significance as both countries seek to promote a rules-based international order, strengthen resilient supply chains and ensure stability in the Indo-Pacific amid evolving geopolitical challenges.

These shared strategic objectives have resulted in cooperation across multiple sectors, making the relationship increasingly comprehensive.

c. Major Areas of Cooperation

Economic Partnership

- Japan is among India's largest investors.
- Nearly 1,400 Japanese companies operate in India, particularly in manufacturing, automobiles, electronics and industrial production.
- Japanese investment has contributed to industrialisation, employment generation and technology transfer.

Infrastructure Development

Japan has supported India's infrastructure through Official Development Assistance (ODA) and long-term financing.

Major areas include:

- Metro rail systems.
- Dedicated Freight Corridors.
- Mumbai–Ahmedabad High-Speed Rail.
- Industrial corridors.
- Urban infrastructure.

These projects improve connectivity, productivity and economic competitiveness.

Technology and Innovation

Cooperation is expanding in:

- Semiconductors.
- Artificial Intelligence.
- Digital technologies.
- Critical minerals.
- Advanced manufacturing.

These sectors are increasingly important for technological competitiveness and strategic resilience.

Strategic and Defence Cooperation

- Regular maritime exercises.
- Defence dialogues.
- Logistics cooperation.
- Collaboration under the Quad.
- Enhanced maritime domain awareness and interoperability.

Regional Development

- The India–Japan Act East Forum promotes infrastructure and socio-economic development in Northeast India.
- It strengthens connectivity with Southeast Asia and supports India's Act East Policy.

These diverse areas of cooperation demonstrate that the relationship extends well beyond economic engagement and has become a key pillar of India's Indo-Pacific strategy.

d. Strategic Significance

Promoting a Free, Open and Inclusive Indo-Pacific

- Supports freedom of navigation.
- Upholds international law, including UNCLOS.
- Encourages peaceful resolution of maritime disputes.

- Strengthens regional stability.

Strengthening Economic Security

- Promotes resilient and diversified supply chains.
- Reduces excessive dependence on any single country for critical goods and technologies.
- Enhances economic resilience against geopolitical disruptions.

Advancing Technology Partnerships

- Cooperation in semiconductors, Artificial Intelligence, critical minerals and advanced manufacturing supports India's technological transformation.
- Strengthens domestic industrial capability and innovation.

Supporting the Act East Policy

- Accelerates infrastructure development in Northeast India.
- Enhances connectivity with ASEAN countries.
- Promotes balanced regional development.

Reinforcing Regional Balance of Power

- Closer India–Japan cooperation contributes to a stable strategic balance in the Indo-Pacific.
- Supports a rules-based regional order amid increasing geopolitical competition.

Despite substantial progress, the partnership continues to face several practical and structural challenges.

e. Key Challenges

Underutilised Trade Potential

- Bilateral trade remains below its potential.
- Economic engagement has not fully matched the depth of strategic cooperation.

Project Implementation Delays

Infrastructure projects occasionally face delays due to:

- Regulatory procedures.
- Land acquisition issues.
- Administrative bottlenecks.

Technology Dependence

- Both countries remain dependent on global supply chains for several advanced technologies.
- Greater technological resilience remains a strategic necessity.

Emerging Geopolitical Uncertainties

- Intensifying strategic competition in the Indo-Pacific requires continuous coordination.
- Supply-chain disruptions and evolving security challenges demand closer policy alignment.

Addressing these challenges will require sustained institutional cooperation and expansion of the partnership into emerging strategic sectors.

f. Way Forward

Accelerate Infrastructure Projects

- Improve project implementation through faster approvals and stronger inter-governmental coordination.
- Ensure timely completion of ongoing connectivity initiatives.

Expand Emerging Technology Cooperation

Deepen collaboration in:

- Semiconductors.
- Artificial Intelligence.
- Clean energy.
- Critical minerals.
- Digital technologies.

Build resilient technology ecosystems.

Strengthen Defence and Maritime Cooperation

- Expand joint military exercises.
- Improve maritime domain awareness.
- Enhance interoperability between armed forces.
- Strengthen cooperation under the Quad.

Promote Private Sector Collaboration

- Facilitate greater investment.
- Encourage industrial partnerships.
- Expand joint research and innovation.
- Strengthen startup collaboration.

Deepen People-to-People Relations

- Expand educational exchanges.
- Promote skill development partnerships.
- Increase tourism and cultural interaction.
- Strengthen academic collaboration.

g. India–Japan Partnership: Key Institutional Pillars

Institution / Initiative	Significance
Annual Summit	Highest-level political dialogue guiding bilateral relations.
Special Strategic and Global Partnership	Framework for comprehensive political, economic and security cooperation.
Official Development Assistance (ODA)	Supports major infrastructure and connectivity projects in India.
India–Japan Act East Forum	Promotes development and connectivity in Northeast India.
Quad	Enhances cooperation on maritime security, technology, resilient supply chains and regional stability.
Supply Chain Resilience Initiative (SCRI)	Diversifies critical supply chains and reduces excessive external dependence.

The India–Japan Act East Forum is a unique bilateral institutional mechanism dedicated to the development of Northeast India. It promotes cooperation in infrastructure, connectivity, agriculture,

healthcare, tourism, skill development and sustainable regional development while strengthening India's integration with Southeast Asia under the Act East Policy.

Conclusion

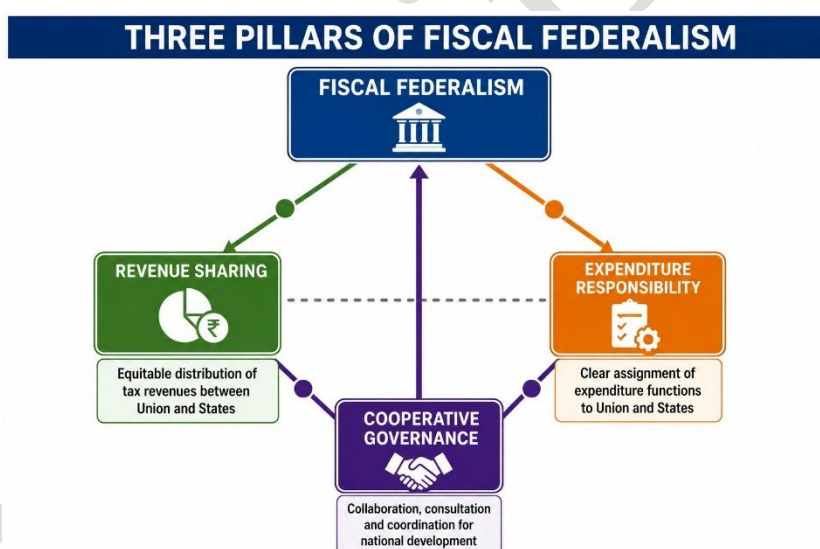
India-Japan relations have evolved into one of India's most comprehensive strategic partnerships, combining economic cooperation, technological collaboration and Indo-Pacific security. As global supply chains undergo restructuring and geopolitical competition intensifies, the partnership will play an increasingly important role in advancing India's strategic autonomy, economic resilience and regional connectivity. Sustained cooperation in emerging technologies, resilient infrastructure and maritime security will remain central to building a free, open, inclusive and rules-based Indo-Pacific.

GS Paper III: Economics

2. State Finances and the Fiscal Tightrope: Balancing Development and Debt

a. Introduction

Fiscal federalism is one of the foundational pillars of India's constitutional framework. While the Union Government possesses relatively greater taxation powers, State governments bear primary responsibility for delivering essential public services such as healthcare, education, agriculture, irrigation, rural development and local infrastructure. Consequently, the fiscal health of States has a direct bearing on inclusive growth, human development and regional equity.



Recent White Papers released by the Governments of Kerala and Tamil Nadu have renewed the debate on the growing debt burden of States and the adequacy of India's fiscal federal architecture. The discussion highlights the challenge of balancing developmental expenditure with fiscal sustainability in an environment of rising welfare commitments, infrastructure needs and borrowing constraints.

b. Background Context

India follows a federal system in which legislative, administrative and financial responsibilities are shared between the Union and the States. However, while the Constitution assigns many major taxation powers to the Union, States are entrusted with implementing a large proportion of developmental and welfare programmes.

This creates a vertical fiscal imbalance, wherein expenditure responsibilities exceed the revenue-raising powers available to States. Consequently, States rely on tax devolution, Finance Commission grants, Centrally Sponsored Schemes (CSS) and market borrowings to finance their developmental obligations.

This structural imbalance has become more pronounced as developmental expenditure has increased faster than States' own revenue mobilisation.

c. Key Issues

High Developmental Responsibilities

States account for a major share of expenditure on:

- Healthcare.
- Education.
- Agriculture.
- Irrigation.
- Social welfare.
- Infrastructure.
- Rural development.

Developmental commitments continue to expand with rising public expectations.

Limited Revenue Capacity

- Own tax revenues often remain insufficient to meet growing expenditure requirements.
- Dependence on Union transfers and grants remains significant.

Growing Dependence on Borrowings

- Persistent fiscal gaps compel States to raise resources through State Development Loans (SDLs) and other market borrowings.
- Borrowing has become an important source of financing developmental expenditure.

Rising Debt Servicing Burden

- Increasing borrowings lead to higher interest payments.
- Debt servicing reduces fiscal space available for productive capital investment.

These issues highlight the structural reasons behind the rising debt burden of many States.

d. Why State Debt is Rising

Expanding Developmental Commitments

- Greater expenditure on welfare programmes.
- Higher investment in healthcare, education and infrastructure.
- Rising social sector obligations.

Revenue–Expenditure Mismatch

- Growth in States' own tax revenues has not kept pace with expenditure.
- Fiscal gaps are increasingly financed through borrowing.

Fiscal Responsibility Constraints

- Borrowing limits prescribed under the Fiscal Responsibility and Budget Management (FRBM) framework promote fiscal discipline.
- However, they may constrain developmental expenditure during periods of economic stress or when substantial public investment is required.

Rising Interest Payments

- An increasing share of State budgets is devoted to servicing past debt.
- This reduces resources available for fresh capital expenditure.

Although rising debt raises fiscal concerns, State expenditure also plays a critical role in India's developmental trajectory.

e. Developmental Importance of State Expenditure

Delivery of Essential Public Services

States are the principal providers of:

- Education.
- Healthcare.
- Agriculture and irrigation support.
- Drinking water and sanitation.
- Social welfare programmes.

Their fiscal capacity therefore directly influences citizens' quality of life.

Human Development

Sustained public expenditure has contributed significantly to improvements in:

- Literacy.
- Public health.
- Nutrition.
- Social welfare.
- Human development indicators.

Capital Formation

State-led public investment:

- Expands infrastructure.
- Generates employment.
- Improves productivity.
- Reduces regional disparities.
- Crowds in private investment.

Strong State finances are therefore essential for balanced and inclusive economic growth.

Despite their developmental importance, several structural constraints continue to weaken State finances.

f. Key Challenges

High Committed Expenditure

Large portions of State budgets are devoted to:

- Salaries.
- Pensions.
- Interest payments.

Limited fiscal space remains for developmental capital expenditure.

Borrowing Constraints

- FRBM borrowing limits may restrict productive investment during periods of economic slowdown.

- Limited flexibility reduces counter-cyclical fiscal policy options.

Higher Borrowing Costs

- States generally borrow at higher interest rates than the Union Government.
- This increases long-term debt servicing obligations.

Persistent Vertical Fiscal Imbalance

- States possess relatively limited taxation powers.
- Expenditure responsibilities continue to expand.
- Dependence on Union transfers remains a structural feature of Indian fiscal federalism.

Addressing these challenges requires reforms that simultaneously strengthen fiscal sustainability and preserve developmental spending.

g. Way Forward

Strengthen Fiscal Federalism

- Ensure predictable, adequate and stable fiscal transfers to States.
- Align financial resources with constitutional responsibilities.

Increase Fiscal Flexibility

- Expand the share of untied transfers.
- Enable States to allocate resources according to local developmental priorities while maintaining fiscal accountability.

Promote Productive Borrowing

- Encourage borrowing primarily for capital expenditure.
- Prioritise infrastructure, irrigation, education, healthcare and other growth-enhancing investments.

Improve Revenue Mobilisation

- Strengthen tax administration.
- Improve tax compliance.
- Rationalise user charges.
- Enhance management of public assets.

Improve Expenditure Quality

- Adopt outcome-based budgeting.
- Strengthen public financial management.
- Conduct periodic expenditure reviews.
- Protect investments in health, education, agriculture and infrastructure.

Conclusion

The debate on rising State debt highlights the delicate balance between fiscal prudence and developmental responsibility. While sustainable public finances are essential for macroeconomic stability, excessive fiscal constraints may weaken States' ability to invest in health, education, infrastructure and human development. Strengthening cooperative fiscal federalism, improving revenue mobilisation and encouraging productive capital expenditure will be critical for ensuring that State finances remain both development-oriented and fiscally sustainable.

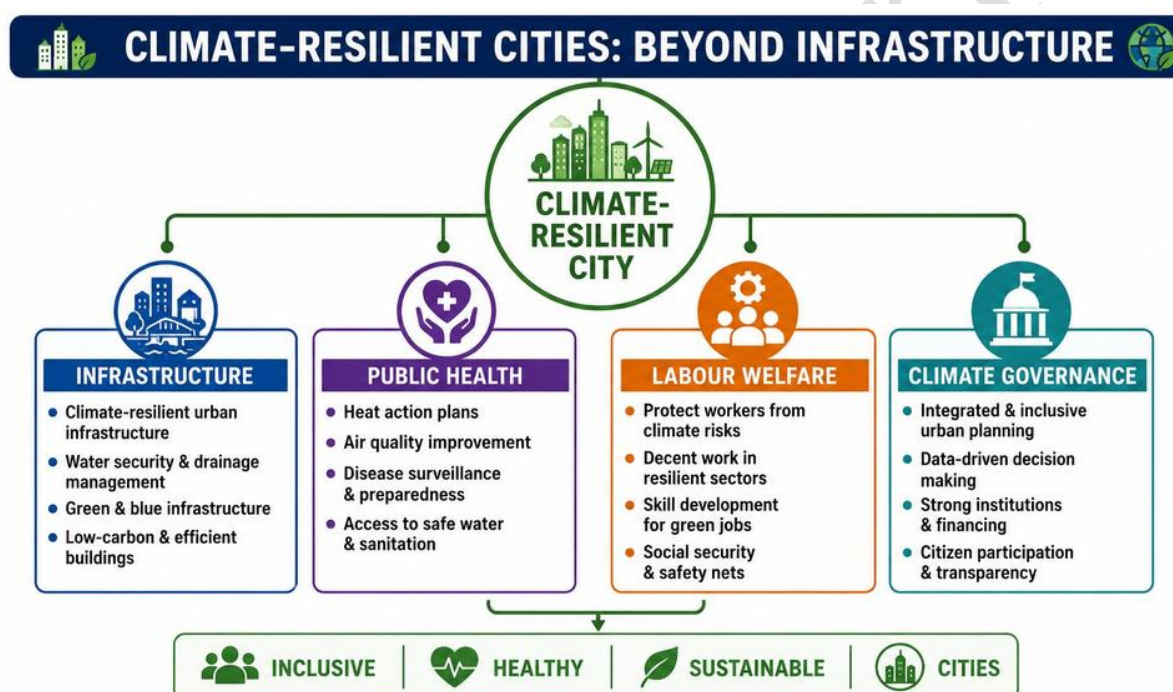
GS Paper III: Environment

3. Climate-Resilient Urban Development: Integrating Health, Labour and Climate Action

a. Introduction

Climate change is transforming the nature of urban governance. Rising temperatures, erratic rainfall, urban flooding, water scarcity and increasingly frequent heatwaves are no longer merely environmental concerns but have become major public health, labour and developmental challenges. While many Indian cities have begun investing in climate-resilient infrastructure, adaptation strategies often remain focused on physical assets such as roads, drainage systems and flood-control structures.

Urban climate resilience must extend beyond infrastructure to incorporate public health, labour welfare and inclusive urban governance. It emphasises that effective adaptation should prioritise vulnerable groups—particularly informal and outdoor workers—whose livelihoods expose them to the greatest climate-related risks despite their limited adaptive capacity.



b. Background Context

Rapid urbanisation, increasing population density and changing climatic patterns have made Indian cities highly vulnerable to climate-related hazards. Heatwaves, urban flooding, air pollution and water scarcity are imposing growing economic, social and public health costs.

Although cities are increasingly investing in climate-resilient infrastructure, adaptation policies often overlook the social dimensions of vulnerability. Climate risks are not distributed uniformly; they disproportionately affect outdoor workers, informal settlements and economically weaker sections that possess limited financial and institutional capacity to adapt.

These structural inequalities explain why climate resilience must be viewed not only as an environmental objective but also as a governance and social justice challenge.

c. Key Issues

High Climate Exposure of Informal and Outdoor Workers

Workers such as sanitation workers, street sweepers, waste collectors, construction workers and street vendors remain continuously exposed to:

- Extreme heat.
- Air pollution.
- Heavy rainfall.
- Hazardous working conditions.

These conditions increase illness, injury, productivity loss and livelihood insecurity.

Weak Urban Basic Services

- Inadequate housing.
- Irregular water supply.
- Poor sanitation.
- Weak drainage infrastructure.

These deficiencies reduce the adaptive capacity of vulnerable communities during climate extremes.

Infrastructure-Centric Adaptation

- Urban climate policies often prioritise physical infrastructure.
- Comparatively limited attention is given to occupational health, labour welfare and social protection.
- Consequently, adaptation measures may fail to protect those facing the greatest climate risks.

Fragmented Institutional Governance

Responsibilities relating to:

- Public health.
- Labour welfare.
- Housing.
- Urban development.
- Water supply.
- Disaster management.

are distributed across multiple departments, often resulting in fragmented planning and implementation.

These challenges indicate that climate resilience requires an integrated governance approach rather than isolated sectoral interventions.

d. Analysis/ Observations

Climate Resilience as a Public Health Imperative

- Extreme heat increases the incidence of:
 - Heatstroke.
 - Dehydration.
 - Cardiovascular diseases.
 - Kidney disorders.
 - Other climate-sensitive illnesses.
- Climate-related diseases increase healthcare expenditure and reduce labour productivity.
- Public health systems must therefore become central components of climate adaptation.

Climate Change and Urban Inequality

- Informal settlements typically have:

- Poor-quality housing.
- Limited green spaces.
- Inadequate drainage.
- Weak public services.
- These factors increase vulnerability to heatwaves, flooding and disease outbreaks.
- Climate change therefore amplifies existing socio-economic inequalities.

Labour Welfare as Climate Adaptation

- Essential urban workers sustain city services under hazardous climatic conditions.
- Many lack:
 - Occupational safety.
 - Health insurance.
 - Social security.
 - Adequate working conditions.
- Protecting workers should therefore become an integral component of urban climate resilience.

Need for Integrated Urban Governance

Effective climate adaptation requires coordinated action across multiple sectors, including:

- Public health.
- Housing.
- Water supply.
- Sanitation.
- Labour welfare.
- Disaster preparedness.
- Urban planning.

Climate resilience cannot be achieved through infrastructure investments alone.

These considerations point towards policy measures that integrate environmental resilience with social protection and public health.

e. Policy Priorities

Integrate Heat Action Plans with Labour Welfare

- Modify working hours during extreme heat.
- Provide shaded rest areas.
- Ensure access to safe drinking water.
- Strengthen emergency medical support for outdoor workers.

Improve Climate-Resilient Urban Infrastructure

- Upgrade housing.
- Improve drainage and sanitation.
- Enhance water supply.
- Expand urban green infrastructure.
- Prioritise improvements in vulnerable settlements.

Strengthen Urban Public Health Systems

- Improve surveillance of climate-sensitive diseases.
- Enhance preventive healthcare.
- Build emergency response capacity during heatwaves and extreme weather events.

Promote Evidence-Based Planning

- Generate reliable data on:
 - Occupational exposure.
 - Climate-related illnesses.
 - Vulnerable populations.
 - Healthcare access.
- Support targeted policymaking.

Improve Institutional Coordination

- Strengthen collaboration among:
 - Urban development authorities.
 - Public health departments.
 - Labour departments.
 - Disaster management agencies.
 - Municipal governments.
- Promote integrated planning and implementation.

Translating these priorities into long-term resilience requires reforms in urban governance, social protection and climate planning.

f. Way Forward

Mainstream Health into Climate Adaptation

- Integrate health impact assessments into urban climate planning.
- Recognise public health as a core pillar of climate resilience.

Strengthen Labour Protection

- Improve occupational safety standards.
- Expand social protection for climate-vulnerable workers.
- Strengthen welfare programmes for informal workers.

Adopt People-Centric Urban Development

- Combine resilient infrastructure with:
 - Affordable housing.
 - Healthcare.
 - Water security.
 - Sanitation.
 - Livelihood protection.
- Ensure that adaptation improves both environmental resilience and human well-being.

Strengthen Climate Governance

- Develop institutional mechanisms for coordinated urban climate action.
- Improve convergence among urban development, health, labour and disaster management institutions.

Prioritise Vulnerable Communities

- Direct investments towards neighbourhoods and occupational groups facing the greatest climate risks.
- Promote equitable and inclusive climate adaptation.

Conclusion

Climate resilience must evolve beyond engineering solutions to embrace people-centred urban governance. Cities that integrate public health, labour welfare, social protection and resilient infrastructure will be better equipped to confront the growing challenges posed by climate change.

Building such cities requires a governance framework that combines environmental sustainability with social justice, ensuring that adaptation protects not only physical infrastructure but also the lives, livelihoods and dignity of the most vulnerable urban residents.

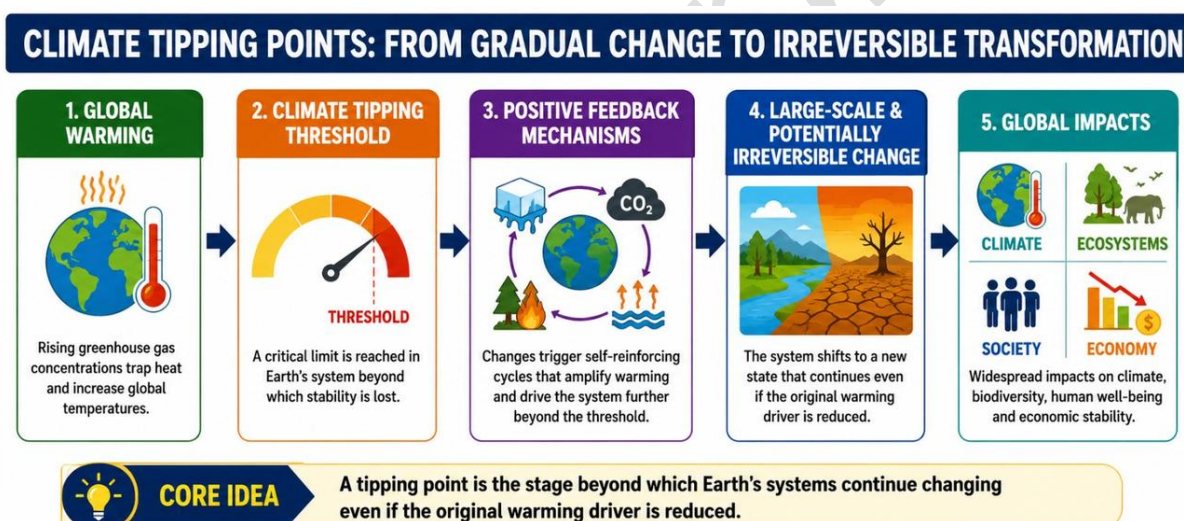
GS Paper III: Environment

4. Climate "Tipping Points" Debate at the Bonn Climate Talks

a. Introduction

Climate change is often perceived as a gradual process driven by the steady accumulation of greenhouse gases. However, Earth system science suggests that certain components of the climate system may respond non-linearly, where relatively small increases in warming could trigger abrupt, self-reinforcing and potentially irreversible changes. These critical thresholds are commonly referred to as climate tipping points.

During the Bonn Climate Change Conference (SB 62), India called for greater scientific clarity in the use of the term "climate tipping points", emphasising that international climate negotiations should distinguish clearly between established scientific evidence, model-based projections and policy narratives. The debate reflects the broader challenge of balancing scientific precision with effective climate risk communication.



b. What are Climate Tipping Points?

A climate tipping point refers to a critical threshold beyond which a component of the Earth's climate system undergoes large-scale, self-reinforcing and potentially irreversible change, even if the original driver of warming is subsequently reduced.

Once such a threshold is crossed, natural positive feedback mechanisms may continue to amplify the change without additional external forcing, making reversal difficult or impossible over human timescales.

Several major components of the Earth system are considered potential tipping elements because of their capacity to undergo abrupt and large-scale transformations.

c. Major Climate Tipping Elements

Atlantic Meridional Overturning Circulation (AMOC)

- Regulates ocean circulation and global heat distribution.

- A substantial slowdown or collapse could alter regional climates, rainfall patterns and marine ecosystems.

Amazon Rainforest Dieback

- Prolonged warming and deforestation may transform large rainforest areas into drier ecosystems.
- Reduced forest cover would decrease carbon sequestration and further accelerate global warming.

Greenland Ice Sheet

- Continued warming could trigger self-sustaining ice-sheet loss.
- Long-term melting would contribute significantly to global sea-level rise.

Coral Reef Collapse

- Repeated marine heatwaves and ocean acidification threaten widespread coral bleaching.
- Large-scale reef degradation would affect marine biodiversity, fisheries and coastal livelihoods.

Monsoon System Changes

- Significant alterations in major monsoon systems could disrupt regional rainfall.
- Such changes would have serious implications for agriculture, water security and food production.

Although these systems are recognised as potential tipping elements, important scientific and policy debates remain regarding how the concept should be interpreted and applied.

d. Why is the Concept Debated?

India's Concerns

India emphasised that:

- The term "climate tipping point" does not yet have a universally accepted scientific definition applicable across all Earth system components.
- Oversimplified communication may create an impression of scientific certainty where substantial uncertainty remains regarding:
 - Timing.
 - Probability.
 - Critical thresholds.
- Climate negotiations should distinguish between:
 - Established scientific evidence.
 - Model-based projections.
 - Policy objectives.

This would ensure that international decision-making remains firmly grounded in scientific rigour.

Scientific Challenges

- The Earth's climate system involves complex interactions among:
 - Atmosphere.
 - Oceans.
 - Cryosphere.
 - Biosphere.
 - Land surface.
- These interactions make precise tipping thresholds difficult to identify.
- Most estimates rely on Earth System Models, which incorporate assumptions and uncertainties.
- Different scientific studies may therefore produce varying projections.

- In many cases, tipping points can only be confirmed with confidence after they have already been crossed, making advance prediction inherently difficult.

Despite these uncertainties, the concept remains important because it highlights the possibility of abrupt and irreversible climate change.

e. Why Climate Tipping Points Matter

Highlight Non-Linear Climate Change

- Climate change may not always occur gradually.
- Small additional warming can trigger abrupt systemic changes.

Strengthen the Case for Precautionary Action

- Even where uncertainty exists, the possibility of irreversible change justifies early mitigation and adaptation.
- Supports application of the Precautionary Principle in environmental policymaking.

Improve Long-Term Risk Assessment

- Helps policymakers assess systemic risks beyond routine hazards such as floods or heatwaves.
- Supports planning for environmental, economic and national security risks.

Inform Global Climate Negotiations

- Provides scientific inputs for mitigation ambition.
- Strengthens international discussions on adaptation and resilience.

While the concept is valuable for long-term planning, policymakers must also address several scientific and communication challenges.

f. Key Challenges

Scientific Uncertainty

- Probability and timing of tipping events remain uncertain.
- Governments must formulate long-term policies despite incomplete scientific certainty.

Risk Communication

- Overstating certainty may undermine scientific credibility if future evidence changes.
- Understating risks may weaken global climate action.
- Effective communication requires balancing scientific accuracy with public awareness.

Confusion with Temperature Targets

- 1.5°C and 2°C warming targets are policy objectives under the Paris Agreement.
- Climate tipping points represent Earth system thresholds.
- Although related, the two concepts are not identical.

These challenges highlight the need for stronger scientific research alongside balanced communication and international cooperation.

g. Way Forward

Strengthen Scientific Communication

- Present climate science in an evidence-based manner.
- Clearly communicate both scientific findings and associated uncertainties.

Invest in Earth System Science

- Expand climate modelling.
- Improve observational research.
- Strengthen regional climate impact assessments.

Promote Evidence-Based Climate Negotiations

- Continue relying on the best available scientific evidence.
- Avoid both unwarranted alarmism and undue complacency.

Accelerate Climate Action

- Strengthen mitigation efforts irrespective of remaining uncertainties.
- Expand adaptation planning to improve long-term resilience.

Enhance International Scientific Cooperation

- Improve sharing of climate data.
- Strengthen collaboration in modelling and observational research.
- Build collective understanding of high-impact climate risks.

Conclusion

The debate on climate tipping points illustrates the growing complexity of global climate governance, where policymaking must balance scientific uncertainty with precautionary action. While precise thresholds may remain uncertain, the potential consequences of crossing critical Earth system limits are sufficiently serious to justify ambitious mitigation, robust adaptation and continued investment in climate science. A scientifically rigorous yet policy-responsive approach will be essential for achieving both environmental sustainability and effective international climate cooperation.

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.

PrepAlpine