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THE HINDU
INDIA'S NATIONAL NEWSPAPER SINCE 1878

Daily News Analysis

The Hindu Important News Articles & Editorial For UPSC CSE

Thursday, 26 March, 2026

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Following a Cabinet meeting on Wednesday, the Union Government announced its updated NDC to be submitted to the UNFCCC. This update is a requirement under the Paris Agreement (2015), which mandates that countries "ratchet up" their climate goals every five years. India's new targets reflect a balance between its developmental needs and its commitment to the Global Stocktake (GST) outcomes.

India aiming for 60% non-fossil fuel power sources by 2035

Jacob Koshy
NEW DELHI

Updating its climate goals, India has pledged that by 2035, 60% of its installed electricity capacity will comprise non-fossil sources. It also aims to reduce by 47% the intensity of emissions per unit of GDP from 2005 level and to increase its carbon sink to 3.5 to 4 billion tonnes.

These targets make up its Nationally Determined Contribution (NDC), which are to be communicated to the United Nations Framework Convention on Climate Change (UNFCCC).

"We will easily achieve these goals... [with] the speed with which we are expanding our non-fossil sources," Union Information Technology Minister Ashwini Vaishnaw said at a briefing on Wednesday following a Cabinet meeting.

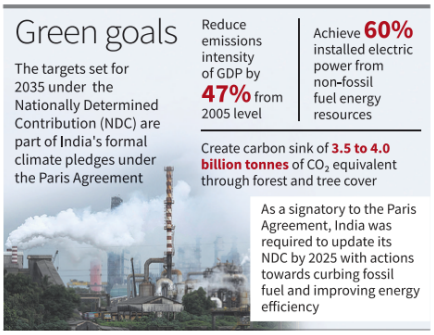
As a signatory to the Paris Agreement, India was required to issue an updated NDC in 2025, which spells out its voluntary actions towards transitioning away from fossil fuel and improving energy-efficiency measures.

At the 30th edition of the Conference of Parties in Belem, Brazil, in November last year, Environment Minister Bhupendra Yadav said that India would announce the NDC by the "year-end".

Current commitments

India's current NDC, officially conveyed to the United Nations in August 2022, commits to the following by 2030: having 50% of its capacity of installed electric power from non-fossil sources; reducing the intensity of emissions per unit of GDP by 44%; and increasing its carbon sink to at least 2.5 to 3 billion tonnes of CO_2 equivalent.

The Conference of Parties, or CoP, is a body of nations that convenes annually to discuss climate issues and proposals to transition their economies away from fossil fuel.



Currently, about 52% of India's installed electricity capacity comes from non-fossil fuel sources – a target achieved well before the deadline – though only about 25% of the power generated is non-fossil. These sources include solar, wind, hydropower, biomass, and nuclear power. As of 2019, say official estimates, India had achieved an emissions intensity of 36% from 2005-2020.

A carbon sink of 1.97 billion tonnes of CO_2 equivalent had already been created from 2005 to 2019. However, forest and tree cover accounts for about 24.6% of India's geographical area as of 2021, which is higher than the 21% in 2005, but still less than the national policy goal of 33%.

'Strong resolve'

"In shaping India's NDC for 2031-2035, the government has considered the outcomes of the first Global Stocktake (GST), principle of Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC), and equity with a view to harmonize national realities, developmental priorities, energy security and the need for greater ambition in climate action, in line with the purpose and long-term goals of the Paris Agreement," the Environment Ministry said in a statement.

Initiated in 2021, the GST assesses the world's collective progress towards limiting global warming to 1.5 degrees Celsius, concluding that nations are not on track. Several independent analysts have suggested that while India may meet its 2030 NDC targets, it is not enough to keep the globe on a 1.5 degrees Celsius pathway.

Independent analysts said India was picking up the slack for developed countries.

India's NDC target had come amid a "rollback of climate policies" and "unilateral trade measures" by developed, rich countries, Vaibhav Chaturvedi, senior fellow, Council for Energy, Environment and Water (CEEW), told *The Hindu*.

"It demonstrates a strong resolve to address transmission and land availability constraints faced by the renewables sector. The 47% emissions intensity target shows that energy security and prices cannot be taken for granted."

"At a time when developed countries are backtracking on ambition, deepening their fossil fuel entrenchment, and dragging the world towards military conflict, the signal from India shows that Global South (developing country) leadership on climate ambition is concrete and real," Avantika Goswami, of the Centre for Science and Environment (CSE), an influential think tank, said in a statement.

The Evolution of India's Climate Targets

Metric	2030 Target (Current)	2035 Target (New)
Non-Fossil Installed Capacity	50%	60%
Emissions Intensity Reduction	45% (from 2005 levels)	47%
Carbon Sink (Forest/Tree Cover)	2.5 to 3 Billion Tonnes	3.5 to 4 Billion Tonnes

Key Concepts & Context (Static Context)

A. Capacity vs. Generation

Minister Ashwini Vaishnaw noted that India has already reached 52% non-fossil capacity. However, a critical distinction remains:

Installed Capacity: The maximum potential output of all power plants.

Actual Generation: Currently, non-fossil sources contribute only about 25% of the actual electricity flowing through the grid. This is due to the intermittent nature of solar and wind compared to "base load" coal power.

B. Emissions Intensity of GDP

This refers to the amount of greenhouse gas emissions produced for every unit of GDP. Reducing this intensity allows India to grow economically while decoupling that growth from a proportional increase in pollution. As of 2019, India had already achieved a 36% reduction from 2005 levels.

C. Carbon Sink and the 33% Goal

India's National Forest Policy aims for 33% forest cover. While the current cover is approximately 24.6%, the new NDC target of 3.5 to 4 billion tonnes of CO2 equivalent sequestration necessitates massive afforestation and restoration of degraded lands.

Geopolitics and Principles

Common but Differentiated Responsibilities (CBDR-RC)

The Ministry emphasized that these targets are based on CBDR-RC. India argues that while it is raising its ambition, developed nations are "picking up the slack" by backtracking on their own financial and technological commitments.

Global Stocktake (GST)

The GST is a fundamental mechanism of the Paris Agreement to monitor collective progress. The 2035 NDC is India's formal response to the GST's conclusion that the world is currently not on track to limit warming to 1.5° C.

The "Orange" and "Green" Synergy

Interestingly, the government is linking its Creative Economy (AI/Digital) with Climate Action. High-tech efficiency in manufacturing and AI-driven grid management are seen as essential tools to reach the 47% emissions intensity target.

Conclusion

India's 2035 NDC is a "resolve signal" to the international community. By committing to 60% non-fossil capacity, India is addressing internal constraints like land availability and grid transmission while challenging developed nations to match its pace. However, the path to 2035 will require massive investments in Battery Energy Storage Systems (BESS) to ensure that "capacity" successfully translates into "generation."

UPSC Prelims Exam Practice Question

Ques: With reference to India's Nationally Determined Contributions (NDCs), consider the following statements:

1. NDCs are legally binding emission reduction targets under international law.

2. Countries are required to update their NDCs every five years under the Paris Agreement.

3. India's updated NDC includes targets for emissions intensity reduction and carbon sink creation.

Which of the statements given above is/are correct?

(a) 1 only

(b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

Ans: a)

UPSC Mains Exam Practice Question

Ques: India's updated NDC for 2035 demonstrates a shift from 'defensive' climate diplomacy to 'proactive' leadership." Evaluate this statement in the context of the principle of Common but Differentiated Responsibilities (CBDR). **(150 Words)**

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Page 03 : GS III : Environment / Prelims Exam

While climate models generally predict an increase in Indian monsoon intensity due to a warming atmosphere, a new "constrained modelling" approach by researchers led by Professor Vimal Mishra suggests the Cauvery is an outlier. The study warns of a 3.5% decline in streamflow between 2026 and 2050, following a historical 28% drop recorded between 1951 and 2012.

Cauvery basin to face dry spell until 2050, says study

Cauvery faces potential decline of about 3.5% of its waters between 2026 and 2050, even as its northern counterparts brace for floods; researchers warn that water sharing could get tougher

Jacob Koshy
NEW DELHI

While a warming climate is expected to significantly increase the flow of most major Indian rivers, the Cauvery basin stands out as an exception. The river faces a potential "near-term decline" of approximately 3.5% of its waters between 2026 and 2050, even as its northern counterparts brace for floods, according to a study by researchers at the Indian Institute of Technology (IIT), Gandhinagar, published in the peer-reviewed journal *Earth's Future*.

Given the fraught history of Cauvery water sharing between Karnataka and Tamil Nadu, particularly in years of deficit rainfall, the study suggests that despite climate models projecting increased rainfall from global warming in India in the decades ahead, the Cauvery might not benefit. In such a situation, river interlinking projects, such as the proposed Godavari-Cauvery link project, might be necessary, the researchers say.

The study finds that the Cauvery experienced a 28% decline in streamflow between 1951 and 2012, based on data from Kollegal which, one of the authors told *The Hindu*, "well represented" actual flows in the Cauvery.

While the study is based on a modelling study and is reliant on an extrapolation, it attempts to reduce errors that can creep in from blindly applying climate models to predict the impact of global warming on Indian rainfall. To do that, the authors use a novel statistical framework and base their analysis on actual river flows between 1951 and 2012, measured at nine stations representing nine major river basins, and then extrapolates the data using a "constrained modelling" approach.

The nine rivers are the Cauvery (measured at Kollegal), the Ganga (Farakka), Brahmaputra (Bahadurabad), Indus (Bhakra), Godavari (Polavaram), Krishna (Kurundwad), Mahanadi (Basantpur), Narmada (Mandleshwar), and Tapi (Burhanpur).

Decades of failed negotiations on water sharing between Karnataka and Tamil Nadu led to the establishment of the Cauvery Water Disputes Tribunal (CWDT) in 1990, which took 17 years to reach a final order in 2007. The tribunal calculated total available water at 740 thousand million cubic (tmc) feet in a normal year, and allocated shares accordingly. The 2018 Supreme Court verdict allocated 404.25 tmcft to Tamil Nadu and 284.75 tmcft to Karnataka, while also declaring the Cauvery a national asset.

In 2023, Tamil Nadu requested 24,000 cusecs a day citing drought, but Karnataka refused, citing its water shortage, leading to protests in both States.

Water shortage

Water challenges apart, the study highlights a persistent problem in climate science: while models agree that India will get warmer, they vary widely on exactly how much rain will fall. By applying observational constraints, the researchers identified that only eight out of 22 models accurately captured the seasonality of the Indian monsoon.

The source models used are the CMIP6 (Coupled Model Intercomparison Project Phase 6), which are the latest generation of global climate models used by scientists to project future climate change

Unconstrained models show a 5% increase in the Cauvery in the near term, the researchers said, as well as a 25% increase in the Indus, 8% in the Ganga, and 16% in the Krishna. When projections were restricted to these 'constrained' or more reliable models, the certainty of a wetter future for most rivers increased, but the outlook for the Cauvery was grim, with the basin facing "near- and mid-term water shortages".

The researchers were led by Dipesh Singh Chuphal and Professor Vimal Mishra of IIT Gandhinagar.

"Raw outputs have biases because of model resolution, simplified physics that global climate models use. To correct these biases and show future trends based on what is actually observed, we use constrained models," Mr. Chuphal, the lead author of the study, told *The Hindu*. "As far as the Cauvery is concerned, it implies that water sharing could get tougher."

Worry lines

An IIT Gandhinagar study paints a grim picture

- Flows in the Cauvery basin are expected to decline in the 'near-term' (2026-2050) and rise only 'negligibly' from 2051
- The river will not benefit from the increased rainfall from global warming in the decades ahead
- River interlinking projects such as the proposed Godavari-Cauvery link could help

The Cauvery riverbed lies largely exposed at the Mukkombu dam in Tiruchi, Tamil Nadu. R. VENGADESH

The Science of "Constrained Modelling"

The study addresses a persistent flaw in climate science: Model Uncertainty.

The Problem: Out of 22 global climate models (CMIP6), many "unconstrained" models incorrectly predicted a 5% increase in Cauvery flow.

The Solution: Researchers filtered the models to include only the eight that accurately captured the historical seasonality of the Indian monsoon.

The Result: When the "noise" was removed, the data revealed a grim reality of near- and mid-term water shortages for the Cauvery, while rivers like the Indus (+25%) and Ganga (+8%) are expected to see significant surges.

The Cauvery Dispute & Geography

Feature	Details
Origin	Talakaveri in the Brahmagiri Range of the Western Ghats (Karnataka).
Tributaries	Left Bank: Hemavati, Shimsha, Arkavati. Right Bank: Lakshman Tirtha, Kabini, Bhavani, Noyyal, Amaravati.
Legal Status	Declared a "National Asset" by the Supreme Court in 2018.
Allocation (2018 SC)	Tamil Nadu: 404.25 tmcft; Karnataka: 284.75 tmcft; Kerala: 30 tmcft; Puducherry: 7 tmcft.

Strategic & Inter-State Implications

A. The Conflict Escalation Risk

The study notes that water sharing has historically led to protests and legal battles during deficit years (e.g., 2023). A projected 3.5% decline means that the "normal year" calculations used by the Cauvery Water Disputes Tribunal (CWDT) may become obsolete, necessitating a new, climate-resilient sharing formula.

B. River Interlinking: The Godavari-Cauvery Link

With the Cauvery drying up and the Godavari projected to have surplus flow, the researchers suggest that the National River Linking Project (NRLP)—specifically the Godavari-Cauvery link—might transition from a "proposal" to a "geographical necessity."

C. Agricultural Impact

The Cauvery delta is the "Rice Bowl of Tamil Nadu." A decline in flow threatens the Samba and Kuruvai rice crops, potentially forcing a shift in cropping patterns toward less water-intensive millets—a move aligned with India's "International Year of Millets" legacy.

Conclusion

The IIT Gandhinagar study serves as a "climate warning" for peninsular India. It highlights that the impacts of global warming are not uniform; while the North faces flood management challenges, the South must brace for chronic water scarcity. Policy-makers must now look beyond reactive crisis management and focus on demand-side management, micro-irrigation, and perhaps the structural integration of river basins.

UPSC Prelims Exam Practice Question

Ques: According to recent studies on Indian river systems under climate change:

(a) All major Indian rivers are expected to witness increased streamflow

(b) Peninsular rivers are more likely to experience decline in flow compared to Himalayan rivers

(c) Himalayan rivers are drying faster than peninsular rivers

(d) River flow is unaffected by monsoon variability

Ans: (b)

UPSC Mains Exam Practice Question

Ques: Discuss the significance of "constrained climate modelling" in improving the reliability of hydrological projections in India. How does it change our understanding of river systems like the Cauvery River? **(150 Words)**

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Page 06 : GS III : Indian Economy / Prelims Exam

On March 25, 2026, the Department of Economic Affairs issued a Gazette notification maintaining the Consumer Price Index (CPI) inflation target at 4%, with an upper tolerance of 6% and a lower threshold of 2%. This marks the third consecutive five-year block (2016–21, 2021–26, and now 2026–31) where this specific target has been utilized, signaling policy continuity amidst global economic volatility.

Centre asks RBI to keep retail inflation target at 4% till 2031

Press Trust of India
NEW DELHI

The Union government on Wednesday asked the Reserve Bank of India (RBI) to target retail inflation at 4% with a margin of 2% on either side for another five years ending March 2031.

To control the price rise, the government in 2016 gave a mandate to the RBI to keep the retail inflation at 4% with a margin of 2% on either side for five years ending March 31, 2021. Subsequently, in March 2021, the government maintained the same target. This is the second time the government has retained the inflation target.

The Union government, in consultation with the RBI, hereby notifies the inflation target for the period beginning April 1, 2026, and ending on March 31, 2031, a Gazette notification issued by the Department of Economic Affairs dated March 25 said. According to the notification, the inflation target is 4% with an upper tolerance level of 6% and a lower tolerance level of 2%. India adopted the inflation-targeting framework and formally tasked the central bank with it in 2016.

The inflation target is for the period from April 1, 2026 to March 31, 2031, as per the notification

In its first meeting in October 2016, the six-member Monetary Policy Committee was given the mandate to maintain annual inflation at 4% until March 31, 2021, with an upper tolerance of 6% and a lower threshold of 2%.

The Monetary Policy Framework

The legal basis for this mandate lies in the **Reserve Bank of India Act, 1934**, which was amended in 2016.

Feature	Details
Primary Objective	To maintain price stability while keeping in mind the objective of growth.
Target Metric	CPI-Combined (Consumer Price Index), also known as "Retail Inflation."
Monetary Policy Committee (MPC)	A 6-member body (3 from RBI, 3 appointed by the Govt) that meets at least 4 times a year to set the Repo Rate.
Failure Definition	If average inflation is outside the 2%–6% range for three consecutive quarters, the RBI must explain the failure to the Government.

Why Retain the 4% Target?

A. Anchoring Expectations

By keeping the target unchanged, the government prevents "inflationary expectations" from creeping up. Businesses and consumers can plan long-term investments with the assurance that the central bank will intervene if prices rise too fast.

B. Credibility in Global Markets

Foreign Portfolio Investors (FPIs) and rating agencies view a stable inflation target as a sign of a mature economy. Given the "Grim Future" warnings regarding core sectors and oil prices exceeding $100/barrel, a steady 4% target acts as a "buffer" for the Rupee's exchange rate.

C. Balancing the "Growth vs. Inflation" Trade-off

The 2% margin provides the RBI with the "flexibility" to support growth during slowdowns (by cutting rates) or to tighten the belt when the economy overheats.

Challenges to the 4% Target (2026–2031)

Imported Inflation: As discussed in previous reports, India's high energy dependence makes the 4% target vulnerable to West Asian geopolitical shocks.

Food Inflation: Supply-side constraints, exacerbated by climate change impacts on river basins (like the Cauvery), often keep food prices high, which the RBI's "interest rate" tool cannot directly control.

Fiscal Dominance: If the government increases spending to boost the "Orange Economy" or infrastructure, the resulting liquidity might make it harder for the RBI to keep inflation near the 4% midpoint.

Conclusion

The extension of the inflation target until 2031 suggests that the "Growth-at-all-costs" model has been replaced by a "Growth-with-Stability" model. For the RBI, the next five years will be a tightrope walk—managing the liquidity needs of a modernizing economy while fending off the inflationary pressures of a volatile global energy market.

UPSC Prelims Exam Practice Question

Ques: Which of the following best explains "inflation expectations"?

(a) Past inflation trends only

(b) People's anticipation of future price levels influencing current behavior

(c) Government's fiscal deficit projections

(d) RBI's repo rate decisions alone

Ans: b)

UPSC Mains Exam Practice Question

Ques: Discuss the significance of the Flexible Inflation Targeting (FIT) framework in ensuring macroeconomic stability in India. Why has the government retained the 4% inflation target until 2031? **(150 Words)**

Page 07 : GS II : International Relations / Prelims Exam

The Persian Gulf, once a quiet hub for pearl diving and artisanal fishing, has transitioned into the world's most congested energy corridor. This shift has replaced a "biologically adapted" network of mangroves, coral reefs, and seagrass meadows with 800 offshore platforms and 25,000 annual tanker transits. Today, it stands as one of the most stressed marine environments on Earth due to a "triple threat" of hypersalinity, rapid urbanization, and military conflict.

West Asia conflict: how finding oil changed the Persian Gulf's ecology

The Persian Gulf and the Strait of Hormuz bring oil and war to mind, but until recently the region looked very different; to see how, it is only necessary to look at its shallow waters and precarious coasts, where many fragile ecosystems live amid heat, salinity, ships, and geopolitical tensions

Ipsita Herlekar

Military ships and oil tankers dominate how we imagine the Persian Gulf today. Yet beyond this familiar imagery of geopolitics and petroleum lies a mosaic of vulnerable ecosystems.

It wasn't always this way. Just six decades ago, these waters were busy not with warships but fishing boats, and the glittering megacities that now line the coast were then little more than fishing villages.

The Gulf coastline is remarkably young. Formed 3,000 to 6,000 years ago as the sea flooded the Arabian basin through the Strait of Hormuz, it is today a shallow, semi-enclosed sea spanning about 226,000 sq. km, with an average depth of just 30 m.

Its shallowness and limited water exchange with the open waters of the Arabian sea drive its extreme conditions. The summer temperatures regularly exceed 35 °C while the high rate of evaporation keeps the water salty to the tune of 44-70 parts per thousand – almost twice as salty as open sea water.

Yet life persists.

Life on the edge

At the boundary of land and sea lies the intertidal zone – shaped by cycles of exposure and submergence to heat and hypersalinity.

These are dynamic systems where organic matter breaks down and is recycled, helping microorganisms survive in the adjacent waters. Beyond them, lagoons host specialised microbes and commercially important species like shrimp. Mangroves are fish nurseries, migratory bird refuges, and carbon sinks.

The mudflats also sustain shrimp as well as coastal food webs while the offshore seagrass meadows are among the Gulf's most productive ecosystems, proving to be places where fish and pearl oysters spawn.

These meadows are also important feeding grounds for sea turtles. Five of the world's seven sea turtle species occur here, including the critically endangered Hawksbill sea turtle, and nest along parts of the coast despite the wars.

The Gulf's waters also support the world's second-largest population of dugongs outside Australia, with an estimated 5,000 to 6,000 individuals. Dugongs are marine mammals that depend almost entirely on seagrass to survive.

Scattered across these waters are coral reefs covering an area the size of Goa. They support several fish and invertebrate communities. Importantly, they can survive extreme conditions, making them a natural laboratory for scientists to understand how coral ecosystems might respond to climate change.

Together, the Gulf is a finely balanced ecological network adapted to extremes.

At its peak, in the 18th to the early 20th centuries, the Gulf's oyster beds supported a thriving economy that supplied nearly 80% of the world's Basra pearls, named after a port in Iraq. This system collapsed when Japanese cultured pearls entered the market in the 1920s.

Then people found oil. By the 1970s, oil had made West Asia one of the world's fastest-growing regions. Today, the Gulf region alone produces nearly a third of the world's oil, with around 800 offshore platforms and more than 25,000 tankers moving in and out every year. Nearly a fifth of the world's oil passes through these waters.

This wealth has driven rapid urbanisation. The number of people has tripled in four decades, with more than 85% of people and economic activity concentrated within 100 km of the coast.

Coastlines remade

Large-scale land reclamation, dredging, and engineering have transformed the shorelines. In Dubai alone, more than 60% of the natural coastline has been changed.

Projects such as Palm Jumeirah have altered currents and sediment flows, eroding sand in some areas and causing sand to accumulate in others, leaving beaches to be maintained constantly.

Nearly two-thirds of the salt flats have disappeared, mangroves have shrunk, and natural beaches have been replaced with seawalls that eliminate nesting grounds for birds and turtles. Seagrass beds and mudflats have been buried under land reclamation projects, removing important nursery habitats for marine life.

The consequences have also extended offshore. Coral reefs have been buried or smothered by sediments while dredging and construction have disrupted natural flows.

These physical changes have been compounded by industrial pressures such as desalination and pollution.

The Gulf hosts about half of the world's desalination plants, with over 200 facilities producing around 11 million cubic metres of freshwater every day. They produce hot, saline brine, often laced with chemicals and heavy metals, that is discharged into the sea, where it accumulates in the semi-enclosed basin, further raising temperatures and salinity.

Birds take flight around vessels in Persian Gulf waters near Hormuz Island, Iran, in 2011. NINARA (CC BY-SA)

The Gulf coastline is remarkably young. Formed 3,000 to 6,000 years ago as the sea flooded the Arabian basin through the Strait of Hormuz, it is today a shallow, semi-enclosed sea spanning about 226,000 sq. km, with an average depth of just 30 m

Intake systems also remove plankton and larvae, disrupting the base of the food web.

War and water

Algal blooms fed by sewage deplete oxygen and trigger mass fish deaths, such as those recorded off Kuwait's shores in 1999 and 2011. Chronic nutrient loading also disrupts coral physiology, increases bleaching, and suppresses the growth of seagrass.

Industrial pollutants further accumulate in marine life. The pearl oyster (*Pinctada radiata*), once central to Gulf economies, has borne the brunt of pollution and sedimentation, which have left behind degraded oyster beds.

Leaks, spills, and tanker traffic continue to damage ecosystems. The 1991 Gulf War spill devastated coastlines, mangroves, bird populations, and fisheries while oil fires spread pollutants far afield. The UN Compensation Commission awarded Kuwait $52.4 billion for a clean-up; decades later, the effort is still underway.

These threats persist even today. The oil infrastructure continues to be a target of drones and missiles, and rising temperatures trigger repeated coral bleaching, pushing already stressed ecosystems to the brink.

The consequences extend far beyond the sea. Across West Asia, the Arabian oryx, populations of the Asiatic cheetah, and the Arabian leopard have fallen sharply due to hunting and other conflicts. The Arabian oryx vanished from the wild by 1972. Then, the Phoenix Zoo in the U.S., Fauna & Flora International in the U.K., and the World Wide Fund for Nature reintroduced it in Oman in 1982, with populations later established across Saudi Arabia, Israel, the UAE, and Jordan. Meanwhile, the Asiatic cheetah survives in Iran in critically low numbers.

Repeated wars have also derailed conservation efforts. The Iranian Revolution in 1979 followed by the Iran-Iraq War in 1980 brought wildlife protection to a near halt, leaving protected areas to decay and wildlife populations to crash.

A narrowing window

Today, the Gulf is among the worst affected marine regions on the planet. But signs of awareness do exist. The UAE, Saudi Arabia, and Qatar have imposed limits on shrimp trawling. The UAE and Saudi Arabia are also leading mangrove restoration efforts and, together with Kuwait, have established marine protected areas to conserve what remains of these ecosystems.

As marine biologist and New York University (Abu Dhabi) professor John Burt noted in his work on Gulf ecosystems, the region's highly centralised governance – for all its deficiencies – could also facilitate rapid environmental action. What is required is for ecological concerns to be prioritised at the highest levels.

Time is also limited. Ecosystems such as coastal swamps, saltpans, oyster habitats, and the nesting sites of endangered sea turtles are already approaching points of no return.

(Ipsita Herlekar is an independent science writer. ipsitaherlekar@gmail.com)

Hypersalinity: Evaporation rates are so high that salinity reaches 44-70 parts per thousand (nearly double the open ocean).

Keystone Species: Dugongs: Hosts the world's second-largest population (5,000–6,000) dependent on seagrass.

Hawksbill Turtles: Critically endangered; nesting sites are now threatened by seawalls.

"Extremophile" Corals: Gulf corals survive temperatures exceeding 35°C, serving as a natural laboratory for climate change resilience.

The Impact of the Oil and Urban Boom

A. Coastal Remaking (Reclamation)

Megaprojects like **Palm Jumeirah** in Dubai have physically altered the coastline.

Result: 60% of natural coastlines in some areas are modified, disrupting sediment flow and burying seagrass nurseries under "reclaimed" land.

Loss of Sinks: Destruction of mangroves and

salt flats has reduced the region's natural carbon sequestration capacity.

B. The Desalination Paradox

The Gulf hosts **50% of the world's desalination plants**.

The "Brine" Problem: These plants discharge hot, hyper-saline brine laced with heavy metals back into the shallow basin.

Trophic Disruption: Intake systems inadvertently kill plankton and larvae, weakening the base of the marine food web.

C. War as an Ecological Disaster

1991 Gulf War: The massive oil spill remains a case study in environmental warfare, with clean-up efforts still ongoing 35 years later.

Current Risks: Drones and missiles targeting oil infrastructure continue to pose the threat of catastrophic leaks into a basin with very limited water exchange with the Arabian Sea.

Terrestrial Consequences: The Silent Decline

The environmental degradation extends inland, impacting iconic West Asian fauna:

Arabian Oryx: Extinct in the wild by 1972, now slowly recovering through international reintroduction programs.

Asiatic Cheetah: Survives only in critically low numbers in Iran; conservation is frequently derailed by regional sanctions and conflict.

Conclusion: A Narrowing Window

While countries like Saudi Arabia and the UAE have begun mangrove restoration and shrimp trawling bans, the Gulf is approaching a "point of no return." The region's centralized governance offers a unique opportunity for rapid environmental policy shifts, but as the article notes, ecological concerns must be elevated to the same priority level as national security and oil production.

UPSC Prelims Exam Practice Question

Ques: The term “desalination brine” refers to:

(a) Freshwater extracted from seawater

(b) Highly saline wastewater discharged after desalination

(c) Underground saltwater reserves

(d) Industrial wastewater from refineries

Ans: b)

UPSC Mains Exam Practice Question

Ques: Discuss the unique geographical and ecological characteristics of the Persian Gulf. Why is it particularly vulnerable to environmental degradation? **(250 Words)**

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The 14th Ministerial Conference (MC14) of the World Trade Organization (WTO), taking place in Yaoundé, Cameroon (March 26–29, 2026), arrives at a watershed moment for global commerce. With the rules-based order under immense strain from unilateralism and geopolitical friction, the decisions made here will determine if the WTO remains relevant or fades into a "talk shop" for fragmented trade blocs.

What is at stake at the WTO's MC14?

What is the context in which MC14 is taking place? What has weakened the WTO's dispute settlement system? What are the key issues before MC14? Why is the e-commerce moratorium contentious? What role should India play at MC14?

EXPLAINER

Prabhash Ranjan

The story so far:

The World Trade Organization's (WTO) 14th Ministerial Conference (MC14) will take place from March 26 to 29 at Yaoundé, Cameroon. The conference is the WTO's highest decision-making body and generally meets once every two years. It is empowered to make all decisions on WTO law and to chart a path for the organisation's future work.

What is the context in which MC14 is taking place?

MC14 is taking place amid rising geopolitical rivalry between the U.S. and China, ongoing global conflicts, and the mounting securitisation of international trade relations. Furthermore, trade multilateralism appears to be in retreat, while unilateralism is on the rise. The U.S. has, over the last year, launched a massive assault on trade multilateralism by weaponising tariffs. Arbitrary tariff impositions by the U.S. grossly violate the cardinal rules that underpin the WTO, namely the most favoured nation (MFN) rule, which epitomises non-discrimination, and the obligation not to impose tariffs beyond bound rates. The U.S. has also begun signing new, one-sided trade agreements with countries through tariff coercion.

Why is trade multilateralism reeling under a crisis?

There is a growing belief in Washington that the WTO, which the U.S. was instrumental in creating in 1995, has not served American interests well. The meteoric rise of China in the last two decades has significantly narrowed the gap between Washington and Beijing. Moreover, China's accession to the WTO, which the U.S. facilitated, has not had the desired impact of disciplining Beijing's state-led industrial policies.

Consequently, the U.S. now wants to eliminate all legal constraints that apply to it, such as WTO law, to take on the Chinese threat head-on. For this reason, the U.S. paralysed the WTO's dispute settlement system by relentlessly blocking the appointment of members to the Appellate Body – the organisation's highest judicial arm.

Another key reason for the crisis is the WTO's inability to draft new trade rules due to consensus-based decision-making. Over the past three decades, the WTO has created only two new agreements: the Trade Facilitation Agreement and the Agreement on Fisheries Subsidies. The sluggishness in forming new trade rules has pushed countries to seek new venues for trade law-making, such as free trade agreements (FTAs).

What are the key issues in MC14?

A fundamental issue at MC14 is whether plurilateral agreements, such as the Investment Facilitation for Development, endorsed by over 120 countries, and the Agreement on Electronic Commerce, should be incorporated into the WTO rulebook.

Although the WTO is a multilateral organisation, it allows plurilateral trade agreements – agreements between fewer than all WTO members. These are typically included in Annex 4 of the WTO treaty. Plurilateral agreements bind only the signatories. However, for inclusion in Annex 4, such agreements must be approved by consensus among all WTO members.

Given the difficulty of achieving consensus, many countries believe that plurilateral agreements are the way forward to reinvigorate the WTO's legislative function. On the other hand, a few countries, such as India, argue that inaugurating the plurilateral rule-making door would open a Pandora's box and lead to the fragmentation of the system. It will be riveting to see whether countries can break this logjam at MC14.

Another key issue is the WTO's e-commerce moratorium. First agreed in 1998 and renewed every two years, this agreement among WTO member countries not to impose tariffs on electronic transmissions has benefited digital trade. This moratorium is set to expire on March 31. While the developed world wants it to be made permanent, the choice is not so easy for developing countries like India. Given the rise in digital trade, continuing the moratorium could lead to significant revenue losses for developing countries.

The 166 WTO member countries meeting in Cameroon are also expected to deliberate on issues of special and differential treatment (SDT) for developing and least developed countries (LDCs). SDT, part of the 'WTO reforms', recognises that, since not all WTO members are on an equal footing, special rights shall be conferred on developing countries and LDCs. The U.S. is keen to weaken the SDT principle by prohibiting larger economies, such as China, India, Brazil, and Indonesia, from enjoying special rights.

On dispute settlement reforms, it is critical to unequivocally demand the restoration of the Appellate Body to put the WTO's dispute settlement system back on track.

The U.S. is also expected to use MC14 to challenge foundational WTO principles, such as the MFN rule. Developing countries that benefit from these principles should strongly oppose such efforts.

What should be India's role?

India, which has always maintained its support for trade multilateralism, needs to walk the talk. It should regain its role as the normative leader for the third world by using the MC14 to articulate the importance of multilateralism and to forge alliances with other developing countries.

To do so, New Delhi should not shy away from re-visiting its deeply entrenched positions, such as opposing plurilateral agreements. India, along with other countries, should also consider other innovative solutions, such as electing Appellate Body members through voting. If MC14 fails to strengthen the WTO and promote trade multilateralism, it will represent a victory for America's blatant unilateralism and its effort to establish a new global trade order rooted in coercion. This will be detrimental to the developing world.

(Prabhash Ranjan is a Professor and Vice Dean (Research), Jindal Global Law School. Views are personal)

GETTY IMAGES

THE GIST

- MC14 takes place amid rising U.S.-China rivalry, global conflicts, and the retreat of trade multilateralism, with unilateralism and tariff coercion on the rise.
- Key issues include plurilateral agreements, the e-commerce moratorium, SDT, and restoring the Appellate Body, with developing countries seeking to protect the WTO system.

The Context: A System Under Siege

MC14 is unfolding against a backdrop of "securitization" of trade. Key contextual drivers include:

- **U.S.-China Rivalry:** Washington's shift from being the WTO's architect to its primary critic, largely due to China's state-led industrial model which the U.S. argues the WTO has failed to "discipline."

Retreat of Multilateralism: A move toward "friend-shoring" and unilateral tariffs (weaponization of trade) that bypass the Most Favored Nation (MFN) principle.

The Consensus Deadlock: The WTO's "one member, one vote" consensus rule has made drafting new global rules nearly impossible, leading to only two major agreements in 30 years.

The Crisis in Dispute Settlement

The WTO's "crown jewel"—its two-tier dispute settlement system—is currently paralyzed.

The Appellate Body Blockade: Since 2019, the U.S. has blocked the appointment of new members to the Appellate Body (the highest judicial arm).

"Appealing into the Void": Currently, if a country loses a trade dispute at the lower panel level, it can appeal to the non-functional Appellate Body, effectively stalling any legal enforcement indefinitely.

MC14 Goal: Restoring this system is a top priority for developing nations to prevent "might is right" trade politics.

Key Issues at Stake in MC14

A. Plurilateral vs. Multilateral Agreements

The Debate: Over 120 countries want to incorporate "Plurilateral" deals (agreements between a sub-group of members), such as Investment Facilitation for Development, into the WTO rulebook (Annex 4).

The Conflict: India and South Africa argue this fragments the WTO and undermines the multilateral spirit. Proponents argue it is the only way to bypass the consensus deadlock.

B. The E-commerce Moratorium

Definition: Since 1998, members have agreed not to impose customs duties on "electronic transmissions" (software, e-books, digital music).

The Contention: Developed nations want this to be permanent. India and other developing nations oppose this, citing massive revenue losses as digital trade grows, and the need for "policy space" to protect domestic digital industries.

C. Special and Differential Treatment (SDT)

The Principle: Recognizes that developing nations need longer timeframes and technical support to implement WTO rules.

The Challenge: The U.S. wants to "graduate" larger developing economies like India, China, and Brazil, arguing they should no longer enjoy SDT benefits.

India's Strategic Role at MC14

As a traditional leader of the Global South, India's role is pivotal:

Normative Leadership: India must forge alliances with Least Developed Countries (LDCs) to protect the MFN rule and SDT principles.

Pragmatic Flexibility: Experts suggest India might need to revisit its hardline stance on plurilateral agreements if they offer a path to modernize the WTO without harming developing interests.

Innovative Solutions: India could push for voting on Appellate Body members—a radical move that would bypass the U.S. veto and restore the judicial system.

Conclusion: What Happens if MC14 Fails?

A failure in Cameroon would likely embolden unilateralism. Trade would move increasingly into "closed-door" Free Trade Agreements (FTAs) where smaller or developing nations have less bargaining power than they do within the collective halls of the WTO. For India, a strong WTO is the best shield against the "coercive" trade practices of economic superpowers.

UPSC Prelims Exam Practice Question

Ques: The term "Most Favoured Nation (MFN)" principle implies:

(a) Preferential treatment to developing countries

(b) Equal trade treatment to all WTO members

(c) Lower tariffs for neighboring countries

(d) Trade benefits only within FTAs

Ans: b)

UPSC Mains Exam Practice Question

Ques: Examine the implications of the Appellate Body crisis for global trade governance. How does it affect developing countries like India? **(250 Words)**

Quality education

Page : 08 : Editorial Analysis

The Transgender Persons Amendment Bill, a flawed fix

Gopi Shankar Madurai

Special Monitor for Sexual Orientation, Gender Identity and Expression and Sexual Characteristics (SOGIESC) Rights, National Human Rights Commission of India

The Transgender Persons (Protection of Rights) Amendment Bill, 2026 (Bill No. 79 of 2026), introduced in the Lok Sabha on March 13, 2026, makes several sharp changes to the 2019 Act. It narrows the definition of "transgender person" to only specific socio-cultural identities such as kinner, hijra, aravani, jogta, eunuch, or biologically-defined intersex variations, or persons forcibly compelled into such an identity through mutilation, castration, amputation, or any surgical, chemical or hormonal procedure. It explicitly excludes persons with different sexual orientations and non-heteronormative gender fluid identities.

The Bill removes the right to "self-perceived gender identity" from Section 4(2), replaces the simple District Magistrate process with a medical board "authority" headed by a Chief Medical Officer, and mandates hospitals to report every transgender surgery to the District Magistrate and the authority.

Perpetuating structural problems

The government claims that the new amendments fix the vagueness and implementation failures of the 2019 Act. Every year, thousands of intersex infants are killed or undergo medically unethical, non-consensual sex-selective surgeries that mutilate their bodies without regard for lifelong physical and psychological trauma, all in pursuit of a false "normalcy". Millions of intersex individuals remain ghosts in our Census systems, their births and deaths unregistered, rendering them invisible to legal protections and social services.

Even the highest authorities fail to grasp the fundamental distinctions between sex identity and gender identity, or between intersex variations and transgender identities, which fuels rampant discrimination. The Bill itself refers to male and female as "gender identity", which is fundamentally wrong – male and female are sex identities. By clubbing sex identity under the gender column, the Bill creates new problems where it is meant to solve existing ones.

The government does not have reliable data on transgender and intersex persons in India. They want to grant us rights but do not know who we are. Separating sex and gender identity as different categories on official documents would address the root causes of this problem.

Despite the new wording, the Bill still lumps "persons with intersex variations" inside the definition of a "transgender person." The term "transgender persons" often conflates distinct identities. The Trans Act's definition includes persons with intersex variations under "transgender", which erases intersex-specific needs. Intersex is a natural biological spectrum (recorded 1%-2% globally). Transgender identity is a psychological and social construct.

The Bill only deepens the conflation of gender identities and ignores core crises

Retaining this conflation under one label violates rights under Article 21 to bodily integrity and privacy. It leaves out intersex infants without any specific ban on "normalising" surgeries and ignores repeated calls for separate intersex legislation.

The Bill's definition also contradicts established international standards: the United Nations and the World Health Organization define intersex as innate variations in sex characteristics that do not fit typical male or female binaries, requiring distinct legal recognition and explicit protections against non-consensual medical interventions. By forcing intersex persons into a transgender category, the Bill undermines these global definitions and erodes the very human rights framework that India has committed to uphold.

The Bill leaves the outdated title, National Council for Transgender Persons, and all State Welfare Boards unchanged. It ignores the long-standing proposal to rebrand them as a National GIESC Welfare Council and State GIESC Welfare Boards (GIESC is Gender Identity/Expression and Sex Characteristics). This keeps the entire policy architecture trapped under the problematic "transgender" umbrella instead of creating a scientifically accurate, inclusive framework. The government continues to promote a single identity at the national level.

This heteronormative bill erases the reality that GIESC communities, including transgender persons, may have diverse sexual orientations such as transgay, translesbian, transbisexual, or queer.

Legally empowering exploitative structures

New clauses in Section 18 introduce rigorous imprisonment (between five to 14 years) for forcing adults or children into "transgender presentation" plus begging or servitude. Yet, the Bill does nothing to regulate or dismantle the colonial hijra jamath-gharana system. By targeting only external perpetrators while leaving internal hierarchies untouched, the amendment effectively legitimises and empowers the long-standing hijra jamath-gharana system, codifying it into law. These structures are not inherently traditional; earlier Indic frameworks were more inclusive and rooted in a broader, affirmative understanding of diverse identities, free from later external influences.

At present, chief hijra nayaks control chelas' earnings from begging and prostitution, trapping gender non-conforming children (often abandoned) in bonded labour. Meanwhile, thousands of gender non-conforming children, abandoned or rejected by families, are thrust into exploitative hijra jamath gharanas, havelis, and dayars, where education is a distant dream; instead, and forced into begging and prostitution.

State police often refuse to register missing child complaints for gender non-conforming children, and there are no dedicated policies to address their vulnerability to trafficking and abuse. There is also no framework for reform, rehabilitation, or protection of minors within these systems. By protecting these colonial-era identities without evidence-based safeguards, the government is undermining earlier inclusive traditions.

The Bill contains no requirement for genetic counselling by medical geneticists before certification, intersex surgeries and health management. It offers no mandate for India-specific longitudinal studies on "affirming surgeries" and raises serious privacy concerns due to inadequate safeguards.

Instead of addressing the problems faced by diverse GIESC communities such as administrative barriers and unregulated medical practices which include gender-affirming surgeries and hormone therapies (Government of India promotes freely despite severe health risks) the Bill offers only superficial measures with little relevance to their needs. Despite the 2019 UN CRPD recommendations to prioritise intersex welfare and dignity, these concerns remain largely neglected.

No intersectionality

The Bill contains no intersectional lens for caste, disability, poverty or religion. Transgender persons from Scheduled Caste/Scheduled Tribe or disabled backgrounds will continue to face compounded discrimination with zero targeted remedies. It also fails to protect India's family-dependent societal structures by skipping any requirement for rigorous, evidence-based research before policy changes. Most critically, the Bill is completely silent on civil and marriage rights of diverse GIESC identities. It offers no provisions for marriage, adoption, inheritance, divorce, or succession for transgender persons, leaving them without full legal recognition in family law, and perpetuating their exclusion from the very institutions that define citizenship and dignity in Indian society.

The 2026 Amendment Bill tightens some definitions and increases penalties for forced exploitation, but leaves every core structural flaw untouched – the hetero-normative erasure of diverse SOGIESC identities, the complete neglect of civil and marriage rights, the legal entrenchment of colonial hijra structures at the expense of ancient Indic heritage. India needs a scientific, culturally grounded approach that separates biological sex characteristics from gender identity, prioritises evidence over ideology, bans non-consensual intersex surgeries, ensures equal rights, dismantles exploitative systems, and protects the dignity of intersex persons and gender non-conforming children. The Constitution demands nothing less.

GS Paper II: Social Justice

UPSC Mains Exam Practice Question: Critically examine the shift from "self-perceived identity" to a "medicalized model" in the proposed Transgender Persons Amendment Bill, 2026. What are its constitutional implications? **(150 Words)**

Context :

While the government positions the 2026 Amendment Bill (No. 79 of 2026) as a move to reduce vagueness in the 2019 Act, critics argue it actually narrows the rights of the community. By tightening definitions and introducing medical boards, the Bill shifts the focus from "Self-Perceived Identity" (upheld by the Supreme Court in the Nalsa judgment) back to a medicalized/pathologized model.

Key Changes & Structural Flaws

Feature	2019 Act / Existing Status	2026 Proposed Amendment
Definition	Broadly inclusive of various identities.	Narrows to specific socio-cultural labels (Hijra, Aravani, etc.) or biological intersex.
Identity Rights	Right to "self-perceived" gender identity.	Removed. Replaced by a Medical Board headed by a Chief Medical Officer (CMO).
Intersex Status	Conflated with Transgender.	Still Conflated. Fails to recognize Intersex as a biological sex variation distinct from gender identity.
Penalties	General protection against discrimination.	Rigorous imprisonment (5–14 years) for forcing "transgender presentation" and begging.

Core Issues: Sex vs. Gender

The article points out a fundamental scientific error in the Bill's drafting:

Sex Identity: Biological characteristics (chromosomes, hormones, anatomy)—e.g., Male, Female, Intersex.

Gender Identity: Internal sense of being male, female, or non-binary (a psychological/social construct).

The Conflict: The Bill refers to "Male" and "Female" as gender identities. This conflation erases the needs of **Intersex infants** who undergo non-consensual "normalizing" surgeries to fit a binary sex, which is a violation of **Article 21 (Right to Bodily Integrity)**.

Critical Concerns

A. The "Hijra Jamath-Gharana" System

The Bill increases penalties for forced begging but ignores the internal hierarchy of the Jamath system. Critics argue that by only targeting "external" perpetrators, the law inadvertently legitimizes exploitative colonial-era structures where Nayaks (leaders) control the earnings and lives of abandoned gender-non-conforming children.

B. Lack of Intersectionality

The Bill is criticized for being "blind" to the compounded discrimination faced by:

Dalit/Adivasi Transgender Persons: No specific remedies for caste-based exclusion within the community.

Disabled Transgender Persons: Absence of accessibility mandates in the welfare boards.

C. Silence on Civil Rights

The 2026 Bill remains silent on the "substantive" rights that define citizenship:

Marriage and Adoption: No provisions for legalizing unions or families.

Inheritance and Succession: Leaves the community in a legal vacuum regarding property rights.

Key Changes Proposed in the Transgender Persons (Protection of Rights) Amendment Bill, 2026

Abolition of Self-Identification: The 2026 Bill removes Section 4(2) of the 2019 Act, which enshrined the right to self-identify as a transgender person. The government argues the original definition was "vague" and made it difficult to identify the "genuinely oppressed" beneficiaries.

The government is also of the view that the existing definition renders numerous criminal, civil, and personal laws "unworkable" and is "not compatible" with various statutory provisions. The legislation's intended purpose was never to protect every class of persons with diverse gender identities, self-perceived sex/gender identities, or gender fluidities.

Narrower Definition: The definition of a 'transgender person' is significantly narrowed. It primarily recognizes those with specific socio-cultural identities (like kinner, hijra, aravani and jogta) or persons with a specified, medicalised list of congenital biological variations (chromosomal patterns, gonadal development, etc).

Name Change: It proposes that transgender persons can change their first names on birth certificates and ID documents. However, for this, individuals must meet the newly proposed statutory definition of a "transgender person".

Introduction of Medical Certification: It replaces the administrative process for identity cards with a Medical Board (headed by a Chief Medical Officer). This board's recommendation is now mandatory for the District Magistrate to consider before issuing a certificate of identity.

Increased Oversight: Representatives on the National Council for Transgender Persons from States/UTs must now hold a minimum rank of Director in the relevant Ministry or Department, indicating a push for higher-level bureaucratic oversight.

New Criminal Category for Forced Identity: The Bill introduces a distinct category to address the "coerced" assumption of transgender identity. It penalizes the act of compelling a person (through force, deceit, or allurement) to undergo procedures like emasculation or hormonal changes to assume a transgender identity.

Increased Punishments: The bill introduces stringent penalties:

Kidnapping an adult to force a transgender identity can lead to minimum 10 years of rigorous imprisonment (RI), extendable to life. The same offence against a child mandates RI for life and a minimum fine of Rs 5 lakh.

Forcing an adult into begging or bonded labour as a transgender person invites 5-10 years RI. The same offence against a child attracts 10-14 years RI.

What Fears are Associated with the Transgender Persons (Protection of Rights) Amendment Bill, 2026?

Rejection of Self-Identification Principle: By removing Section 4(2) of the 2019 Act, the bill directly contradicts the core principle of the NALSA verdict, which recognized the Right to Self-Determination and held that it does not need to be proven through external, especially medical, means.

Clinical Gatekeeping: By requiring a board headed by a Chief Medical Officer to "recommend" a person's gender to the District Magistrate, the Bill returns to a model where transgender identity is treated as a medical condition rather than a social or personal identity.

For a transgender person, navigating a system with deep-rooted transphobia and proving their identity to a board of doctors would be extremely difficult, humiliating, and regressive.

Exclusion of Gender Fluidity: By explicitly stating that the law is not for those with "self-perceived" or "gender fluid" identities, it ignores a vast section of the community that does not fit into rigid biological categories. Critics argue that this arbitrarily decides who is "oppressed enough" to deserve rights.

Threat to those outside "Socio-Cultural" groups: While the Bill recognizes groups like Hijras or Kinner, it potentially delegitimizes trans persons who exist independently of these traditional systems (the guru-chela system), leaving them without legal standing.

Reversal of Progress and Statistical Impact: With 32,424 transgender certificates and identity cards already issued under the 2019 Act, the amendment creates uncertainty. If the definition changes, it is unclear if these individuals will have to "re-prove" their identity under the new, stricter medical criteria.

Concerns over "Forced Identity" Clauses: There are concerns that these clauses could be misused to target trans-led communities or families who support a minor's gender transition, labelling it as "allurement" or "inducement" under the new, stricter definitions.

Transgender Persons (Protection of Rights) Act, 2019

The Transgender Persons (Protection of Rights) Act, 2019, enacted following the NALSA v. Union of India (2014) judgment, provides legal recognition and rights to transgender persons in India.

Definition of Transgender: Defines a transgender person as one whose gender does not match the gender assigned at birth, inclusively covering trans men, trans women, intersex persons, and socio-cultural identities like kinner and hijra, regardless of medical interventions.

According to Census 2011, India's transgender population stands at approximately 4.88 lakh, with Uttar Pradesh, Andhra Pradesh, and Maharashtra being the top three states.

Right to Self-Identification: Grants the right to self-perceived gender identity. A certificate of identity is issued by the District Magistrate through a purely administrative process, without any medical examination.

Prohibition of Discrimination: Forbids discrimination in education, employment, healthcare, and public facilities.

Institutional Mechanism: Establishes a National Council for Transgender Persons to advise the government on welfare policies, monitor implementation, and coordinate inter-ministerial efforts.

Offences & Penalties: Prescribes punishment (6 months to 2 years imprisonment and fine) for offences like forced labour and abuse.

Conclusion: The Path to Scientific Inclusion

The critique suggests that India needs to move away from the problematic "Transgender" umbrella to a more accurate **GIESC** (Gender Identity/Expression and Sex Characteristics) framework. A truly inclusive law would:

Ban non-consensual surgeries on intersex infants.

Restore the right to self-determination without medical gatekeeping.

Dismantle exploitative systems while providing state-led rehabilitation and education for abandoned children.