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Motivation gets you
going, but discipline
keeps you growing.

John C. Maxwell

India's Russian oil cuts predate U.S. tariffs: data

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The 25% additional tariff by the U.S. came into effect on August 27 while government figures show a reduction in energy imports from Russia in the previous months compared with 2024

T.C.A. Sharad Raghavan
NEW DELHI

India is implementing a larger strategy to reduce its dependence on oil imports from Russia, with the higher tariffs imposed by the U.S. coming at a time when India was already cutting its Russian oil imports, according to an analysis of official data. This has been confirmed by government officials.

An analysis by *The Hindu* of government trade data shows India's oil imports from Russia in September 2025 – the first full month during which the U.S.'s 50% tariffs on Indian imports were applicable – were 29% lower in value and 17% lower in volume than in September 2024.

However, the data show that this is part of a larger



SOURCE: MINISTRY OF COMMERCE AND INDUSTRY

strategy rather than a reaction to the tariffs, half of which were imposed as a "penalty" for importing Russian oil.

Bigger strategy

The additional tariff came into effect on August 27. However, data show that India had cut the value of

Russian oil imports in eight of the previous 10 months up to September 2025, compared with the corresponding period of 2024. In five of these months – February, May, June, July, and September – the cuts exceeded 20% each.

"India has known for a while now that its depen-

dence on Russian oil imports had grown too high and so it was already working on a plan to reduce this," an official in the Ministry of Commerce and Industry told *The Hindu* on condition of anonymity.

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- **The additional tariff came into effect on August 27. However, data show that India had cut the value of Russian oil imports in eight of the previous 10 months up to September 2025, compared with the corresponding period of 2024.**
- **In five of these months — February, May, June, July, and September — the cuts exceeded 20% each.**
- **“India has known for a while now that its dependence on Russian oil imports had grown too high and so it was already working on a plan to reduce this,” an official in the Ministry of Commerce and Industry told The Hindu on condition of anonymity.**
- **Since the 50% tariffs were imposed, U.S. President Donald Trump has been repeatedly claiming that India will be cutting its imports of Russian oil, something the Indian government has neither confirmed nor denied.**

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- **The reduction of Russian oil is not just in absolute terms, but also in terms of its share in India's total oil imports. Russian oil accounted for about 41% of India's total oil imports in September 2024, which came down to 31% by September 2025. However, rather than a one-off, the data confirm that this is part of a longer process.**
- **Russia's share in India's oil imports grew from 1.6% in 2020-21 to 2% in 2021-22, before jumping to 19% in 2022-23, 33.4% in 2023-24, and 35.1% in 2024-25.**
- **The first six months of 2025-26 had, however, snapped this four-year increasing trend, with Russia's share falling to 32.3% in the April-September period.**

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- **Russia's war in Ukraine, the resultant sanctions on it by the U.S. and Europe, and the discounts it provided India resulted in a significant shift in India's oil import basket for a few years after the war started, with an increasing dependence on Russia.**
- **Some of that is now reversing itself as India has started shifting away from Russian oil. In 2021-22, the U.S. accounted for 9.2% of India's oil imports and the UAE accounted for 12.4%. This was when Russia accounted for only 2% of India's oil imports. By 2024-25, Russia accounted for 35.1% of India's oil, while the shares of the U.S. and the UAE had fallen to 4.6% and 9.7%, respectively.**
- **In the first six months of 2025-26, the U.S. share has once again increased to 8% and that of the UAE to 11.7%, even as Russia's share has fallen to 32.3%.**

Mains Question

- Q. India's growing oil import dependence poses serious economic, strategic, and environmental challenges. Analyse the key factors driving this dependence and suggest a long-term roadmap to strengthen India's energy security.
- भारत की बढ़ती कच्चे तेल आयात-निर्भरता आर्थिक, सामरिक और पर्यावरणीय स्तर पर गंभीर चुनौतियाँ प्रस्तुत करती है। इस निर्भरता के प्रमुख कारणों का विश्लेषण कीजिए तथा भारत की ऊर्जा सुरक्षा को मज़बूत करने हेतु दीर्घकालिक रोडमैप सुझाइए।

Apex court allows CAQM to take 'proactive' steps to keep air pollution in check in Delhi

Page No. 1, GS 2,3

Krishnadas Rajagopal

NEW DELHI

The Supreme Court on Wednesday gave the Commission for Air Quality Management in National Capital Region and Adjoining Areas (CAQM) a free hand to take "any proactive measure" to curb air pollution throttling Delhi-NCR after the statutory body proposed to include choice Stage IV curbs of the Graded Response Action Plan (GRAP) like work from home and 50% of office attendance in the ongoing Stage III of GRAP itself.

"Any proactive measure of CAQM to reduce air pollution is always welcome," Chief Justice of India B.R.



Remedial measures: Water being sprinkled to control air pollution in the national capital on Wednesday. SUSHIL KUMAR VERMA

Gavai, heading a Bench comprising Justice K. Vinod Chandran, observed in an order. The court said the CAQM must, however, consult stakeholders and take everyone on board.

The court was responding to a note submitted by the CAQM proposing short-

term and long-term measures against air pollution choking Delhi-NCR.

Amicus curiae, senior advocate Aparajita Singh, highlighted a CAQM recommendation to exempt BS-III emission vehicles from the protection of an August 12 court order, which barred

authorities from taking any coercive steps against owners of 10-year-old diesel and 15-year-old petrol vehicles. The CAQM also proposed including the Stage III restriction of staggered office timings in Stage II.

Sports events in schools

The court also directed the CAQM to look into the issue of schools conducting sports events in November and December. Ms. Singh said such events virtually amount to putting children in a gas chamber. The court made it clear that the CAQM must pass the necessary directions to the States concerned on this issue. The court posted the next hearing for December 10.

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- **The Supreme Court on Wednesday gave the Commission for Air Quality Management in National Capital Region and Adjoining Areas (CAQM) a free hand to take “any proactive measure” to curb air pollution throttling Delhi-NCR after the statutory body proposed to include choice Stage IV curbs of the Graded Response Action Plan (GRAP) like work from home and 50% of office attendance in the ongoing Stage III of GRAP itself.**
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- **Ms. Singh said such events virtually amount to putting children in a gas chamber.**
- **The court made it clear that the CAQM must pass the necessary directions to the States concerned on this issue.**

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- **Commission for Air Quality Management in NCR and adjoining Areas (CAQM) is a statutory body established under the Commission for Air Quality Management in National Capital Region (NCR) and Adjoining Areas, Act 2021.**
- **The Act also dissolved the Environment Pollution Prevention and Control Authority (EPCA) established in the NCR in 1998.**
- **The chairperson of the Commission will be a government official of the rank of Secretary to the Government of India or Chief Secretary to the State government.**
- **The Commission has exclusive jurisdiction over the National Capital Region (NCR), including areas in Haryana, Punjab, Uttar Pradesh, and Rajasthan, in matters of air pollution.**
- **It supersedes bodies such as the central and state pollution control boards of Delhi, Punjab, Haryana, Uttar Pradesh, and Rajasthan.**

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- **The Graded Response Action Plan (GRAP) is a set of emergency measures taken to prevent further deterioration of air quality after the AQI of the Delhi-NCR region reaches a certain threshold.**
- **It was approved by the Supreme Court in 2016 in its verdict in M. C. Mehta vs. Union of India.**
- **GRAP was first notified by MoEFCC in 2017. This was based on a plan that was submitted by the Central Pollution Control Board (CPCB) in November 2016.**
- **Implementing agency: Initially, GRAP was implemented by the Environment Pollution (Prevention and Control) Authority (now dissolved).**
- **From 2021 onwards, the GRAP is being implemented by the Commission for Air Quality Management in NCR & Adjoining Areas (CAQM).**



AQI- 201-300

“POOR”

ACTIONS

- Halt unregistered construction on plots over 500 sqm.
- Implement dust control measures
- Ban waste burning and enforce vehicle PUC
- Ensure power stability
- Promote unified commuting



AQI- 301-400

“VERY POOR”

ACTIONS

- Limit diesel generators to essential services.
- Inspection for dust control at construction sites.
- Increase parking fees to reduce private transport.
- Expand CNG/electric bus and metro services.



AQI- 401-450

“SEVERE”

ACTIONS

- Ban non-essential construction activities.
- Close down all mining activities.
- Possible shift to online classes for younger students.
- Restrict BS III petrol and BS IV diesel vehicles.

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AQI- More than 450

“SEVERE+”

ACTIONS

- Close schools, apply odd-even rule.
- Limit offices to 50% attendance.
- Allow only essential trucks.
- Ban non-BS VI diesel vehicles.
- Halt non-essential construction.

- **Air Quality Index (AQI) is a number, which is a measure of air quality.**
- **AQI value ranges from 0 to 500. The higher the AQI, the worse the air.**
- **National AQI was launched in India in 2014 by the Ministry of Environment, Forests and Climate Change (MoEFCC) as part of the Swachh Bharat campaign.**
- **Objective: To help simplify the common understanding of air pollution.**
- **The AQI scheme was recommended by IIT Kanpur and an Expert Group.**

- **AQI considers eight pollutants for which 24-hour average National Ambient Air Quality Standards (NAAQS) are prescribed. The pollutants are:**
 - **Particulate Matter (PM₁₀),**
 - **Particulate Matter (PM_{2.5})**
 - **Nitrogen Dioxide (NO₂)**
 - **Sulphur Dioxide (SO₂)**
 - **Carbon Monoxide (CO)**
 - **Ozone (O₃)**
 - **Ammonia (NH₃)**
 - **Lead (Pb)**

Recognise the critical role of the childcare worker

On July 24, 2023, the United Nations General Assembly adopted a resolution to declare October 29 each year as International Day of Care and Support. This resolution recognised the critical role of comprehensive care and support policies, aimed at reducing, redistributing and valuing unpaid care and domestic work, to the well-being of society and all its members – in particular, children, older persons and persons with disabilities – more so, as a disproportionate share of care and domestic work is undertaken by women and adolescent girls. It also remains invisible, undervalued and unaccounted for in national statistics, and neglected in economic and social policymaking.

India has had a long history of care provision with institutions outside the family emerging in the late 19th and early 20th centuries with the work of educationists such as Tarabai Modak and Gijubai Badheka. These pioneering efforts, with developmentally appropriate practices, gradually declined as modern childcare provisioning emerged post-Independence. With modern childcare mostly in the private, voluntary sector, low-income families, those who needed childcare services the most, were excluded.

The report of the study group on the development of the preschool child, submitted to the Government of India in 1972, with Mina Swaminathan as its convenor, transformed the history of childcare services in the country. It set out a clear social justice agenda, emphasising a holistic approach to address the health, nutrition and developmental needs of the young child, especially from poor and marginalised communities.

This resulted in the launch of the Integrated Child Development Services Scheme (ICDS) in 1975. It is one of the world's largest early childhood development programmes today, with 1.4 million Anganwadi (childcare) centres operating across the country, reaching 23 million children, and serviced by around 2.4 million Anganwadi workers and helpers. Based on estimated population projections, and the need to reach over 60 million children by 2030, this number is likely to almost double to 2.6 million centres with over five million workers.

Underpaid and undervalued

As several national and global studies have revealed, despite recognising the importance of care for societal growth and well-being, care-workers have remained underpaid and undervalued, and their contributions to the early development of the child not fully recognised. The pressure on the ICDS to rapidly expand to ensure universal coverage has led to a lower emphasis on pre-service and in-service training to build competencies of the care-workers in practice-based learning, that is crucial for quality childcare. This is partly driven by the perception of early years teachers as carers, addressing



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primary needs of food, hygiene and immunisation, not as professionals. The devaluation of their roles, of not being treated as professional workers, results not just in low pay but also a lack of attention to working conditions (including paid leave), social security benefits, opportunities for career advancement, and collective organisation and representation. In many States, their wages, in the range of ₹8,000-₹15,000 a month, are barely on a par with the minimum wages for unskilled workers.

The impact of climate change

In the context of climate change, the need for good quality childcare services for the rural and urban poor is rapidly rising. There is sufficient evidence to show that poor women and children are the worst affected by the impacts of climate change and extreme weather events, such as floods or droughts. They confront reduced access to health and care services, alongside diverse and healthy food. While the Sustainable Development Goals suggest the need for a more equal sharing of care responsibilities between women and men in households, climate change is forcing many men to migrate out of their rural homes to urban centres in search of work.

Apart from their own dire circumstances, as witnessed during the COVID-19 pandemic in India, their physical absence makes such sharing impossible. When families migrate to urban areas, the higher costs of living – in particular rentals – make it imperative for women to find work too, which is often domestic and care work in the homes of the middle classes. There is, however, little care provision for their own children, with only 10% of Anganwadi centres currently functioning in urban areas.

The Government of India's Time Use in India 2024 survey confirms the feminisation of care-work, with women spending an average of 426 minutes a day (over seven hours) on unpaid domestic and care work as against 163 minutes (over two hours) by men (Ministry of Statistics and Programme Implementation). Together, this would constitute 15%-17% of GDP. Smaller scale studies demonstrate clear links between the mother's lack of time for care and feeding and child undernutrition, as visible in the persistently high child stunting levels at over 35%. Only 11% of children aged six months-23 months had a minimum acceptable diet (National Family Health Survey 5, 2019-21), raising cognitive and developmental concerns.

In this context, Mobile Creches and the Forum for Creches and Childcare Services (FORCES) organised the India Childcare Champion Awards on October 28, 2025 in New Delhi. The awards were presented across seven categories that honoured excellence and dedication in the field of childcare – the Mina Swaminathan Special Jury Award for Best Creche Worker, Best Creche Worker, Best Creche Supervisor, Best Local Leader, Best NGO, Childcare Champion, and

Gratitude to CSR Funders in Childcare. The awards sought to give recognition to frontline childcare workers and supervisors as well as local panchayat leaders, employers and civil society organisations. It was to celebrate their tireless efforts working on the ground, within communities, and at the policy level to make quality childcare accessible and equitable for all.

The event gave voice to childcare workers, bringing out clearly not just the fact that these workers were skilled professionals but that they were also change-makers, challenging social norms and structures. The workers spoke about breaking caste and class barriers, building self-confidence to overcome social stigma and dealing with critiques of themselves by their families and communities, as working with 'dirty' children.

Slowly, but surely, they have built trust with parents and emotional bonds with the children, hoping to give them a chance in life that they would not otherwise have. Caring for the children of migrant workers is even more demanding as the parents work full-time, often living in poor conditions. Children here confront a range of health issues, so care-workers have, in addition, become advocates for health insurance, for clean and adequate space and care infrastructure, amongst others. They play multiple roles – as children playing with children, as carers nurturing them, and as adult decision-makers, monitoring their key milestones, and intervening when needed.

Match the standard in Scandinavia

Recognition of childcare workers is clearly a first step in highlighting their critical role in providing quality, nurturing care, and laying the foundation for a strong and inclusive nation. Yet, there is a lot more to do – apart from ensuring that they have decent wages and working conditions, there is a need to redirect resources to both skill-building of these care-workers and the strengthening of care infrastructure. There is still little provision for the child below the age of three years, with only 2,500 of the over 10,000 crèches approved under the Government of India's Palna Scheme, currently operational. As compared to the current public investment of approximately 0.4% of GDP, the ambitions of universalising good quality care would need a tripling of budgetary allocation to between 1%-1.5% of GDP – the standard in Scandinavian countries that have universal childcare coverage.

A focus on care spotlights the rights of women and children. Achieving this requires both individual and systemic changes. Recognition of the knowledge and skills of childcare workers has to be accompanied by rules and policies that ensure adequate resources and voice to the sector. Decentralisation, convergence and collective ownership are critical if the rights of women workers and underprivileged children are to be realised.

Content.

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- **Based on estimated population projections, and the need to reach over 60 million children by 2030, this number is likely to almost double to 2.6 million centres with over five million workers.**
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- **This is partly driven by the perception of early years teachers as carers, addressing primary needs of food, hygiene and immunisation, not as professionals.**

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- **Together, this would constitute 15%-17% of GDP. Smaller scale studies demonstrate clear links between the mother's lack of time for care and feeding and child undernutrition, as visible in the persistently high child stunting levels at over 35%.**
- **Only 11% of children aged six months-23 months had a minimum acceptable diet (National Family Health Survey 5, 2019-21), raising cognitive and developmental concerns.**
- **Caring for the children of migrant workers is even more demanding as the parents work full-time, often living in poor conditions.**

- **Recognition of childcare workers is clearly a first step in highlighting their critical role in providing quality, nurturing care, and laying the foundation for a strong and inclusive nation.**
- **Yet, there is a lot more to do — apart from ensuring that they have decent wages and working conditions, there is a need to redirect resources to both skill-building of these care-workers and the strengthening of care infrastructure.**
- **There is still little provision for the child below the age of three years, with only 2,500 of the over 10,000 crèches approved under the Government of India's Palna Scheme, currently operational.**
- **As compared to the current public investment of approximately 0.4% of GDP, the ambitions of universalising good quality care would need a tripling of budgetary allocation to between 1%-1.5% of GDP — the standard in Scandinavian countries that have universal childcare coverage.**

Mains Question

- Q. Childcare workers form the backbone of early childhood development, yet their contribution remains undervalued and under-supported. Critically examine the role they play in shaping human capital and discuss the reforms needed to strengthen this workforce in India.
- बाल देखभाल कर्मी (Childcare Workers) प्रारम्भिक बाल्यावस्था विकास की आधारशिला होते हैं, फिर भी उनका योगदान अक्सर उपेक्षित और अपर्याप्त रूप से समर्थित रहता है। मानव पूँजी निर्माण में उनकी भूमिका का समालोचनात्मक मूल्यांकन कीजिए तथा भारत में इस कार्यबल को सशक्त बनाने हेतु आवश्यक सुधारों पर चर्चा कीजिए।

Breaking the rules

Post-facto clearance must remain
the exception, not the rule

The majority decision by a Bench of the Supreme Court to reverse its May 2025 order, which had stayed the grant of post-facto environmental clearances, illustrates the difficulty of dealing with the seemingly irreversible consequences of a much-abused law. The controversy is also about the form of the Environment Ministry's instruments that normalised those exceptions. The Environment (Protection) Act 1986 and EIA notifications of 1994 and 2006 are framed around prior environmental clearance (EC), which means that large construction and industrial projects must not start work until an authority has assessed their consequences. Decisions by the Court including *Common Cause* (2017) and *Alembic Pharmaceuticals* (2020) treated post-facto EC as impermissible where prior EC was mandatory. The order in May, in *Vanashakti*, read this as ruling out post-facto ECs altogether for such projects. The new majority does not say 'EC first' is no longer the rule but locates a narrow space for post-facto clearances by relying on *Alembic*, *D. Swamy*, and others to allow 'regularisation' when considerable resources have already been committed, usually with fines. This still means that the Ministry can maintain 'EC first' as the legal default and allow post-facto clearances only in rare, highly constrained cases. In any case the spirit of the EC regime remains *ex ante*.

A clearance granted after construction has begun or finished cannot replicate the EIA's rationale, which is to make environment-related decisions before the potential cumulative consequences are underway. Post-facto clearances can only impose penalties, prescribe mitigation or order closure or demolition. Even if the judiciary permits such ECs in some circumstances now, the clearances will be remedial and sit uneasily with the structure of environmental jurisprudence in India since the 1990s. The majority's concern about differential treatment of past and future violators is also understandable, even if its remedy is not. *Vanashakti* struck down the 2017 notification and subsequent Environment Ministry office memoranda that facilitated post-facto ECs, but it let existing post-facto ECs stand. The majority treated this as discriminatory, which is fair, but unequal treatment during a shift from a permissive to a stricter regime is to be expected during regulatory housekeeping. Its existence does not by itself require that an old route be revived. The Court has also recalled the bar on post-facto ECs and reopened the legal question, indicating that limited post-facto regularisation is not in itself untenable. In the end, the Ministry must treat post-facto ECs as exceptional not least because they are inherently at odds with the legal framework. Any complaint about discrimination between past and future violators should be addressed by tightening legacy clearances, not by normalising post-facto regularisation.

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Reset with Riyadh

U.S. seems to have de-hyphenated Saudi Arabia and Israel in its West Asia plans

Saudi Crown Prince Mohammed Bin Salman's visit to the White House marked the official end of a brief chill in relations between the most powerful country and the most influential Arab state. Ties had hit a low after Jamal Khashoggi, a Saudi dissident journalist in the U.S., was murdered inside the kingdom's consulate in Istanbul in October 2018. U.S. intelligence agencies later concluded that MBS had ordered the killing. During his election campaign, Joe Biden had vowed to hold MBS accountable. Yet, it was Mr. Biden who took steps to rehabilitate the prince. He travelled to Jeddah in July 2022 where he greeted the heir to the Saudi throne with a fist bump. Donald Trump, who brokered the 2020 Abraham Accords, has been keen to deepen America's traditional ties with its Arab partners. On Tuesday, he defended MBS's human rights record, claiming that the prince "knew nothing" about Khashoggi's murder. He also promised to sell tanks and F-35 fighters to Saudi Arabia, despite Israel's objections. It will also get access to America's most advanced computer chips. MBS is seeking to build vast data centres to transform Saudi Arabia into a technological power house.

Historically, Saudi Arabia's abysmal human rights record has played little role in shaping its relationship with Washington, long anchored in geopolitical and energy interests. There have been moments of strain, such as the 1973 oil shock, the post-9/11 distrust or the chill after the Khashoggi murder, but both sides have consistently prioritised strategic alignment over values. One persistent complication, however, has been Israel, America's closest regional ally, which does not have formal diplomatic ties with Riyadh. After the Abraham Accords were signed, the Biden administration pushed Saudi Arabia to join the framework by normalising ties with Israel. MBS had said in September 2023 that Saudi Arabia and Israel were in an advanced stage of negotiations. But the October 7 Hamas attack and Israel's genocidal Gaza war halted the momentum. Today, Saudi Arabia says it remains open to joining the Accords, but only if there is a credible, time-bound path towards a two-state solution to the Palestine question – a position Israel opposes. Mr. Trump appears to have realised both the regional complexities and Israel's intransigence. He now seems prepared to deepen ties with Saudi Arabia without demanding an immediate commitment to recognise Israel. In effect, he has de-hyphenated Saudi Arabia from the Abraham Accords, for now, choosing instead to cultivate direct, stronger ties with the kingdom, which he views as central to his broader West Asia plans.

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Redefining the narrative of TB eradication worldwide

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Looking back at the history of tuberculosis (TB) control, one small yet revolutionary change stands out – the development of point-of-care molecular diagnostics. Traditionally, TB diagnosis involved either a poorly sensitive sputum smear test or waiting for weeks for culture results from centralised labs. However, with small, battery-powered Polymerase Chain Reaction (PCR) machines, both TB and drug-resistance can now be diagnosed in under an hour.

A diagnostics game changer

World Health Organization (WHO)-approved rapid molecular diagnostic platforms such as Truenat are now a cornerstone of the worldwide fight against TB, particularly in low-resource settings. For instance, after integrating it with the Nigerian national TB programme, the identification of rifampicin-resistant TB cases nearly doubled, which was an indicator of the platform's ability to detect drug-resistant strains. In addition, Nigeria has experimented with stool-based Truenat testing for the diagnosis of TB among children in primary health-care centres. This is intended to overcome the challenge of sputum collection among children, thus improving case detection and bacteriological confirmation.

A study conducted recently and published in *The Lancet* assessed the use of this platform in primary health-care centres in Mozambique and Tanzania, in Africa. The trial revealed that combining on-site molecular testing with rapid communication of results greatly improved the rate at which patients began treatment within seven days of their initial visit. The intervention not only improved diagnostic quality but also optimised treatment, proving the instrumental role of point-of-care diagnostics in improved TB care in resource-constrained environments. Such innovations are critical to the achievement of global TB elimination targets.

This shift in diagnostic capacity did not merely alter the rhythm of TB control. It became the



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This year's Kochon Prize highlights how India is creating scalable solutions that can transform global health equity

basis for a world where early treatment was no longer a function of geography or infrastructure.

It was this very shift that was recognised globally this year, when Goa-based Molbio Diagnostics was awarded the coveted Kochon Prize for its contributions to TB diagnostics. Established by the Kochon Foundation of the Republic of Korea and in collaboration with the Stop TB Partnership, the Kochon Prize is one of the world's most distinguished awards for TB control contributions. It has honoured scientists, organisations and individuals whose innovations have radically enhanced TB outcomes. The real value of this award transcends any single company. This year's award says a lot about the extent to which India's indigenous technological innovations are not just fighting TB within its own geography but also significantly influencing the world of TB eradication.

This writer recalls WHO's endorsement, in 2020, of the portable molecular platform developed in India. The evidence came from diverse studies in Asia and Africa, showing an impact equivalent to central-lab systems but with significantly greater deploy-ability. The excitement was palpable – at last, a diagnostic test that could go to the patient, not the other way around. It was a moment when innovation met inclusion. Since then, many more Indian companies have ventured into TB diagnostics innovation, which is visible today in the range of improved point of care tests available.

India's role in decentralised TB control

India's National TB Elimination Programme (NTEP) was swift in adopting these technologies, installing thousands of point-of-care molecular testing units across the country. Today, we have enough and more evidence of how this has significantly reduced the time between suspecting TB and starting treatment, thereby greatly enhancing TB management protocols.

This award also highlights India's collaborative model for TB elimination. Today, the TB fight is no longer solely the responsibility of the public

sector. It is a shared mission, where private innovators, community health workers and government systems work hand-in-hand. For a country that bears close to a quarter of the world's TB burden, this partnership is not only desirable, it is imperative. The private sector offers agility, scale and technology while the public sector offers reach, data and accountability. Together, they create the foundation of a strong public health response.

The Kochon prize has been awarded to India twice – in 2006 to Dr. L.S. Chauhan, Deputy Director General-Tuberculosis, Ministry of Health and Family Welfare (joint winner with TB/HIV activist Winstone Zulu from Zambia), and in 2017 to the Indian Council of Medical Research (ICMR). This year's recognition is not just another win for India. It is a global acknowledgement of the power of affordable indigenous innovation.

The adoption of field-ready molecular diagnostics from India has led to deployments worldwide – from mobile clinics in sub-Saharan Africa to refugee camps in Eastern Europe. It proves that India can be at the forefront of innovation, creating scalable solutions that can transform global health equity.

But the fight against TB is not done yet. The next challenge lies in ensuring that such diagnostics are accompanied by balanced access to treatment, nutrition, social protection and reduction of stigma. Studies have established that malnutrition accounts for about 40% of TB in India. The battle against TB will have to address all of these determinants in order to succeed.

A call for continued investment, innovation

We stand at a critical juncture. While the recognition of innovations such as point-of-care diagnostics is heartening, we must not lose sight of the bigger picture: TB is a disease of inequality.

We must continue investing in innovations that integrate diagnostics with nutrition, contact tracing, digital adherence and vaccines. Only then can we ensure that no one is left behind in this global effort to eliminate TB.

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- **The National Tuberculosis Elimination Programme (NTEP) aims to eliminate tuberculosis (TB) in India by 2025.**
- **The target includes reducing TB incidence by 80%, decreasing TB-related deaths by 90%, and ensuring zero catastrophic costs for TB patients.**

Hidden cost of polluted groundwater

On a sweltering afternoon in Punjab, a farmer lowers his bucket into the well that has sustained his family for generations. The water looks clear, but tests reveal a different story: uranium levels far above the permissible limit. In nearby villages, children suffer skeletal deformities from fluoride-laced groundwater, while families spend what little they earn on hospital visits. What is happening here is not just a public health tragedy; it is an economic calamity unfolding silently beneath our feet.

The latest Annual Groundwater Quality Report (2024) paints a grim picture. Nearly one-fifth of samples from over 440 districts exceed safe contamination limits. In Punjab, almost a third show uranium above permissible levels, with fluoride, nitrate, and arsenic also widespread. India's dependence on groundwater, with 600 million people relying on it for drinking and most irrigation, makes this a national crisis.

The World Bank estimates that environmental degradation, largely from polluted water and soil, drains India of nearly 80 billion dollars each year, around 6% of GDP. Health costs from unsafe water run into billions annually, while waterborne diseases result in millions of lost working days.

People at risk

The link between contamination and human capital loss is especially alarming. In Gujarat's Mehsana district, fluorosis has disabled workers, reduced their earning capacity, and plunged households into cycles of wage loss and medical bills. Across the country, diarrhoeal illnesses still kill hundreds of thousands of children under five each year. Beyond these health tragedies, the consequences represent a steady erosion of India's most valuable resource: its people.

Agriculture, which employs over 40% of Indians, is also under siege. Soil degradation affects



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India needs a nationwide, real-time groundwater monitoring system with open access to data so communities know what they are drinking and irrigating with

nearly a third of the country's land, with polluted irrigation water accelerating the decline. Heavy metals and residues in groundwater reduce yields and accumulate in crops. Research shows that farms near polluted stretches of water experience a drop in productivity and income.

The risks extend beyond village boundaries. Contamination undermines not only the quantity but also the quality of crops. International buyers are increasingly demanding traceability and safety standards, and instances of export rejections over contamination concerns highlight the dangers of complacency. If such problems spread to staples such as rice, vegetables, or fruits, India's \$50-billion agricultural export sector could face serious losses.

Groundwater contamination also deepens inequality. Wealthier households can buy bottled water or invest in filtration systems, but poorer families cannot. Out-of-pocket expenses already account for most health spending, leaving households with little buffer. In rural areas, dependence on contaminated aquifers traps communities in cycles of ill health, debt, and declining productivity. The damage extends to the next generation, as children growing up with cognitive impairments from arsenic or fluoride exposure face limited prospects for education and employment.

Reckless over-extraction, already more than one and a half times the sustainable limit in Punjab, forces farmers to drill deeper, worsening water quality and increasing fertilizer use, creating a vicious cycle that undermines the long-term viability of agriculture.

Way forward

Yet solutions exist if policymakers act with urgency. First, India needs a nationwide, real-time groundwater monitoring system with open access to data so communities know what they are drinking and irrigating with.

Second, enforcement against industrial effluents and untreated sewage must be strengthened; the current weak framework effectively allows industries to pass the costs onto society. Third, agricultural policy must shift away from input subsidies that encourage chemical overuse, towards incentives for crop diversification, organic practices, and micro-irrigation. Fourth, decentralised treatment systems, from community water filters to low-cost purification units, can provide immediate relief to affected villages.

In Nalgonda district, Telangana, community water purification units have provided safe drinking water to villages long plagued by fluorosis, leading to a measurable decline in new cases among children. In Punjab and Haryana, pilot programmes promoting diversification away from water-intensive paddy to pulses and maize have reduced pressure on aquifers, lowered chemical use, and maintained farmer incomes. These successes show that locally tailored interventions can deliver results while broader reforms are implemented.

Finally, stricter export quality checks and farmer training are needed to safeguard India's reputation in global markets.

Groundwater contamination is not a marginal issue but a hidden economic drain. Unlike water scarcity, which can sometimes be reversed, contamination is often permanent. India faces a choice: continue treating contamination as invisible, allowing short-term gains to impose massive long-term losses, or recognise it as one of the country's most urgent challenges. To sustain growth and secure its future, India must act decisively.

The poison beneath our feet has been ignored too long. Delay will only raise the price. Half-measures are no longer enough; only bold, coordinated action can prevent this crisis from becoming a national catastrophe.

Views expressed are personal

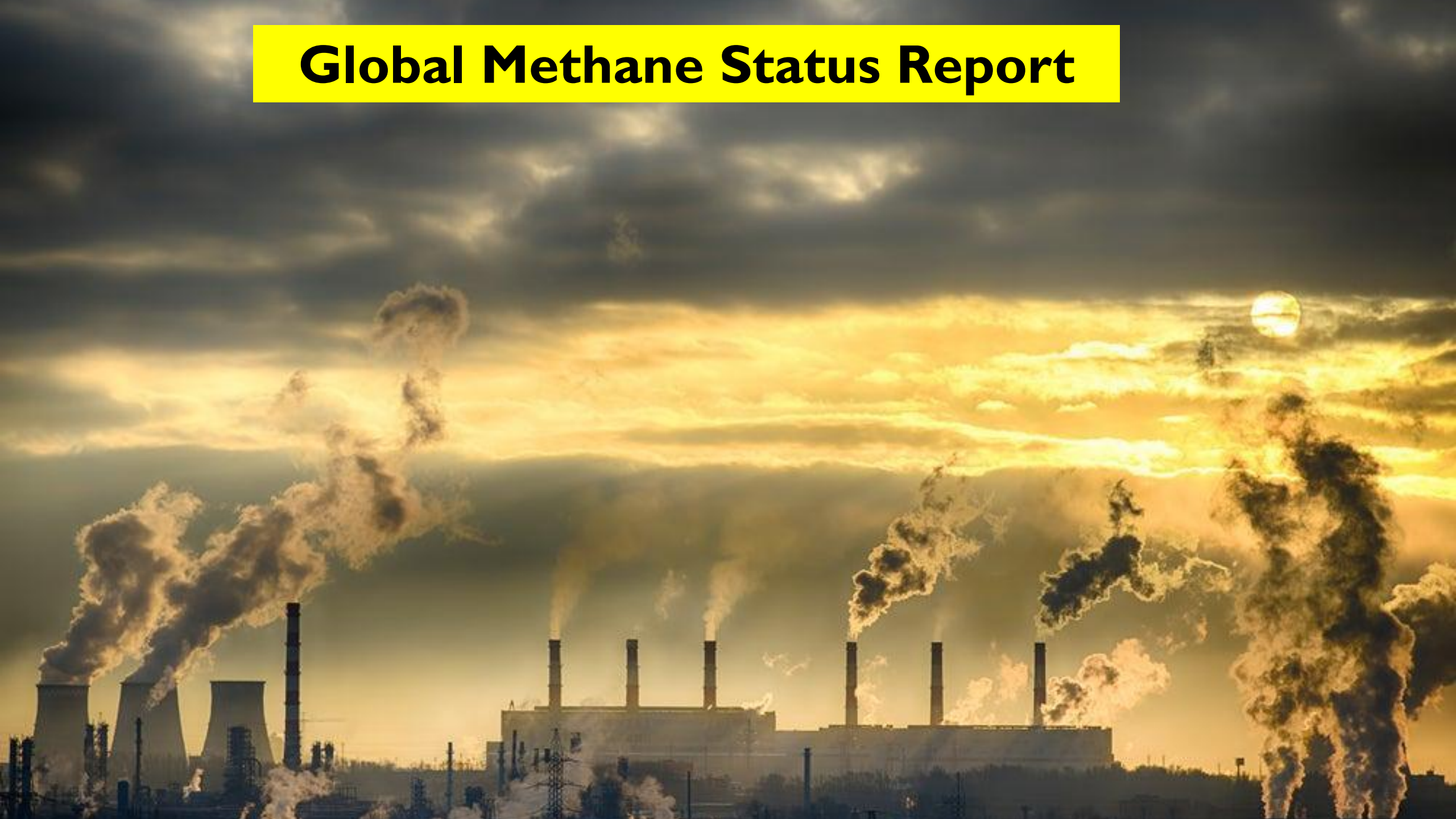
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Global Methane Status Report



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- **The 2025 Global Methane Status Report, released by UNEP, serves as a mid-term evaluation of the Global Methane Pledge, revealing that while projected emissions growth has slowed, current commitments will fail to meet the 2030 target.**
- **Full implementation of current NDCs and Methane Action Plans (MAPs) would reduce emissions by only 8% below 2020 levels by 2030, far short of the GMP's 30% target.**
- **127 countries (65% of Paris Agreement parties) now include methane measures in NDCs, a 38% increase from pre-2020, but only six countries (Canada, Japan, Moldova, Norway, USA, Vietnam) have national targets directly comparable to the GMP.**

Major Sources of Methane Emission:

- **Agriculture (42%, 146 Mt):** Dominated by enteric fermentation from livestock (76% of agricultural emissions) and rice cultivation (21%).
- **Energy (38%, 135 Mt):** Comprises oil and gas production (64 Mt from upstream, 17 Mt from downstream) and coal mining (43 Mt).
- **Waste (20%, 71 Mt):** Primarily from municipal solid waste in landfills (37 Mt) and wastewater (30 Mt from domestic and industrial).



Thank You!