
GREEN AI: INNOVATION VERSUS PRECAUTION AND INDIA'S ENVIRONMENTAL JURISPRUDENCE GAP

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ABSTRACT

India is building world's largest AI infrastructure; over 38,000 GPUs under the IndiaAI Mission, Data Centres expanding across the country and Draft Data Centre Policy 2025 offering 20 years tax holidays. Yet the environmental cost of this expansion is being overlooked. IndiaAI Mission is silent on the emissions and energy use. The DDCP, 2025 imposes no mandatory Environmental Impact Assessment and makes renewable energy sourcing voluntary.

This article argues that India's AI Governance Guidelines are incoherent; these guidelines have explicitly adopted 'Innovation over restraint' as a governing principle. But in India Precautionary Principle is not mere policy option rather it is an established law of the land. Rooted in German jurisprudence, the Precautionary Principle was firmly established in Vellore (1996) by the Supreme Court of India and given statutory force under National Green Tribunal Act, 2010 and reaffirmed as a fundamental right under Article 21 as a right to healthy environment extended to right against adverse climate change in MK Ranjitsinh (2024).

This article identifies two gaps. That there are no mandatory environmental impact assessment for data centres and absence of cross-ministerial alignment with India's climate commitments. It proposes corrective measures using the existing legal mechanisms; an EPA Section 3 Notification and NDC compliance clause in the Draft Data Centre Policy.

Keywords: Green AI, Precautionary Principle, Environmental Jurisprudence, Data Centre policy, IndiaAI Mission, Net Zero.

Introduction

Artificial Intelligence is no longer an emerging technology; it is an expanding industry with a measurable environmental cost. Every major industrial expansion eventually has to confront environmental law. The question before India's environmental jurisprudence is not just whether AI infrastructure causes harm but also whether the current regulations are adequate enough to address the issue.

Training a single AI model can emit more than 626,000 pounds of CO₂ roughly equivalent to five times emissions by an average car in its lifetime; these statistics are from widely cited study to bring environmental cost of AI into academic discussions (Strubell 2019)¹. For the purpose of this article, 'Green AI' refers to artificial intelligence developed with a deliberate intention to computational efficiency; smaller models, optimized training and infrastructure powered by renewable energy. It is opposite of the 'bigger is always better' mentality that has dominated AI research for the past decade.²

As India builds world's largest AI infrastructure outside US and China with over 38,000 GPUs already working under IndiaAI Mission and the data centres are expanding across Greater Noida, Chennai, Hyderabad and Pune yet the cost on environment remains invisible.³

Recently, India has made two binding commitments; under updated Nationally Determined Contribution (2022) promises 50% non-fossil energy by 2030 and net-zero emissions by 2070. The Supreme Court in Vellore (1996), established Precautionary Principle as binding law of the land under Article 21⁴. More recently in *MK Ranjitsinh* (2024)⁵, the court acknowledged right to a clean environment against the adverse effects of climate change as Fundamental Right. Yet neither is mentioned in AI policies. The Indian AI Mission (2024) is silent on emissions and energy use. The Draft of National Data Centre Policy (2025)

¹ Emma Strubell, Ananya Ganesh & Andrew McCallum, 'Energy and Policy Considerations for Deep Learning in NLP' (2019) 57 Proceedings the Association for Computational Linguistics 3645.

² Victor Frimpong, 'What Counts as Green AI?' Mapping Efficiency, Sustainability and Critical-Ecological Strands in a Fragmented Discourse' (2025) 4(2) AI & Society.

³ Press Information Bureau, '*India AI Mission: Democratising AI Access*' (Government of India, February 2026); IEEFA/ESG News, 'Data Centres and India's Electricity Demand' (August 2025).

⁴ *Vellore Citizens Welfare Forum v. Union of India* (1996) 5 SCC 647.

⁵ *MK Ranjitsinh v Union of India* 2024 SCC OnLine SC 562.

offers tax holidays and clearances without mandatory Environmental Impact Assessments (EIA)⁶.

This article argues that India's AI regime is legally incoherent. India AI Governance Guidelines (November 2025) have clearly adopted 'innovation over restraint' as a governing principle.⁷ But in India Precautionary Principle is not a mere guideline rather it is an established principle, a binding legal obligation enforceable by National Green Tribunal (NGT) and Supreme Court. In India the choice between innovation and precaution is a legal question not just a choice.

The Global Debate: Innovation versus Precaution

There are two major ideologies adopted by a country to govern emerging technologies. The Precautionary Principle originated in German environmental policy in 1970s and became European Union's standard; irreversible or serious harms do not require scientific proofs before action, regulatory actions are justified beforehand. The EU AI Act integrates this approach like classifying AI systems by level of threat and imposing stricter requirements on high- risk applications before any harm could occur.⁸

On the other hand, the Innovation Principle emerged from United States tech policy circles. It asserts that precautionary regulations kill progress, that specific harms should be addressed only when they arise and that minimal governance preserves competitive edge⁹. The US favours voluntary commitments and executive action over binding pre-deployment mandates.

India explicitly chose sides in India AI Governance Guidelines (November 2025), there are 7 sutras (guiding principles). The third sutra is 'All other things being equal, responsible innovation should be prioritized over cautionary restraint'.¹⁰ The guidelines are explicitly non-binding and described as a 'lightweight' regulatory approach, confining that environmental safeguards are absent by design and not by oversight.

⁶ Ministry of Electronics & Information Technology, 'Draft National Data Centre Policy 2025' (Under Consultation, September 2025).

⁷ Ministry of Electronics & Information Technology, 'India AI Governance Guidelines' (November 2025)

⁸ European Parliament and Council, Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonized rules on artificial intelligence (Artificial Intelligence Act) [2024] OJ L 1689/1.

⁹ Information Technology & Innovation Foundation, 'How the Precautionary Principle Undermines Progress in Artificial Intelligence' (ITIF, 2019) <https://itif.org> accessed 9 April 2026.

¹⁰ Ministry of Electronics & Information Technology, 'India AI Governance Guidelines' (n 7).

In many jurisdictions the choice between innovation and precaution is a matter of policies, legislative preferences and economic calculations like in US or in Singapore one may argue upon voluntary framework or debates regarding minimum governance is wise. But for India, Precautionary Principle isn't any policy option rather it is a legal obligation, affirmed and recognized by Supreme Court and enforceable before National Green Tribunal. What can just be a political debate somewhere else is a constitutional command in India. The following sections establishes why.

Precautionary Principle as Law of the Land

In India, precautionary principle is a binding domestic law. The Supreme Court in *Vellore Citizens Welfare Forum v. Union of India* (1996) held that the precautionary principle and polluter pays principle are 'essential features of sustainable development'.¹¹ The court enunciated three elements: first environmental measures must anticipate, prevent and attack the cause of degradation; second lack of scientific certainty cannot postpone preventive action where serious harm is threatened; third the burden of proof shifts to the industrialist to show the activity is environmentally benign.

Precautionary Principle is more than a mere doctrine. National Green Tribunal Act, 2010 by virtue of section 20, ensures the application of precautionary principle as a statutory command. Inaction itself is a violation.¹² Further, Article 47, 48A and 51A (g) of the Constitution mandates the state to protect and impose corresponding fundamental duty on citizens.¹³ Supreme Court in many instances read these provisions as an implied part of Article 21, observing that right to a clean environment is a constitutive aspect of the right to life.¹⁴ This makes the constitutional foundation equally clear.

In the recent case, *MK Ranjitsinh v. Union of India* (2024), Supreme Court upheld the 'right to be free from the adverse effects of climate change' as a distinctive fundamental right under Article 21. Justice Chandrachud observed that despite plethora of environmental legislation, there is no umbrella legislation on climate change and its

¹¹ *Vellore Citizens Welfare v Union of India* (n 4).

¹² National Green Tribunal Act, 2010, No.19, Acts of Parliament, 2010; *Biju K Balan v State of Maharashtra* (2019) SCC Online Bom 211, para 39 (recognizing inaction as violation).

¹³ Constitution of India, 1950, arts 47, 48A, 51A (g).

¹⁴ *Subhash Kumar v State of Bihar* (1991) 1 SCC 598; *MC Mehta v Union of India* (1997) 2 SCC 353 (Taj Trapezium).

governing branches are misaligned in India, the absence does not mean Constitution is deprived of such right.¹⁵

The precautionary principle is not aspirational; it is an established law of the land enforceable by the Supreme Court, the National Green Tribunal and every citizen. The third sutra of AI Governance Guidelines must be interpreted in light of this principle.

The Gap

In India, Data Centres holds a legally ambiguous position. The Draft National Data Centre Policy 2025 confer them a status of infrastructure providing them twenty-year tax holidays, single-window clearance and expedited approvals. Yet for environmental accountability the same centres are treated as mere buildings under the EIA Notification 2006¹⁶, which still does not list them as a scheduled activity requiring mandatory impact assessment. Tax benefits as infrastructure; Environmental clearance as buildings; the state cannot blow hot and cold on the same asset.

Gap 1- No mandatory Environmental Impact Assessment

The EIA Notification 2006, issues under Section 3 of the Environment Protection Act 1986,¹⁷ requires a prior environmental clearance for specified industrial activities. Data Centres are not listed as a scheduled activity under this Notification. Hence, hyperscale AI infrastructure, thousands of GPUs consuming megawatts of electricity and drawing billions of litres of water are approved without any environmental scrutiny applied to steel plants or chemical factories.¹⁸ This is in direct violation of the first principle established under Vellore (1996) which specifies that the state must prevent, anticipate and attack the causes of environmental degradation before harm occurs. The Supreme Court in Taj Trapezium case applied the Precautionary Principle to protect a cultural monument from industrial emissions, holding that the burden of proving environmental safety lies with the polluter.¹⁹ If judicial protection extends to monuments, the absence of equivalent scrutiny for AI infrastructures which causes measurably greater environmental harm is constitutionally

¹⁵ *MK Ranjitsinh v Union of India* (n 5).

¹⁶ Environmental Impact Assessment Notification, S.O. 1533 (E) (14 September 2006), issued under Environment Protection Act, 1986, Sched.

¹⁷ Environment Protection Act, 1986, No. 29, Acts of Parliament, 1986.

¹⁸ IEEFA, 'Data Centres and India's Electricity Demand' (n 3).

¹⁹ *MC Mehta v Union of India* (n 14).

contradictory. The third sutra of the AI Governance Guidelines ‘Innovation over restraint’ is just a policy preference and cannot supersede a binding legal obligation.²⁰

Gap 2- No cross-ministerial NDC alignment

The IndiaAI Mission is administered by the Ministry of Electronics and Information Technology (MeitY), while climate obligations are entrusted with the Ministry of Environment, Forest and Climate Change (MoEFCC). There is no synergy between the two ministries.²¹ The Draft Data Centre Policy 2025 was drafted without mandatory MoEFCC consultation or EIA, data centres now consume less than 1% of country’s electricity and they are projected to consume 3% of electricity by 2030.²² The policy only gives voluntary renewable benefits, falling short on Nationally Determined Contribution (2022) to generate 50% of its electricity from non-fossil sources by 2030.

India already has a working model of cross-ministerial coordination. The PRAGATI platform; a digital governance initiative, successfully coordinated between the Railway and Environmental Ministries along with State Governments to resolve forest clearance and infrastructure for railway projects in a time bound manner.²³ The same could be adopted for AI governance. Further, the Energy Conservation Amendment Act 2022 designates large energy consumers as ‘designated consumers’ subject to mandatory energy audits, yet data centres, projected to consume 3% of India’s electricity by 2030, remains notably absent from this designation.

Domestically the two relevant ministries lack inter-ministerial coordination. This fragmented approach contradicts India’s global role as GPAI Lead Chair, advocating responsible AI globally and the integrated governance principle in the AI Governance Guidelines.²⁴

²⁰ Ministry of Electronics & Information Technology, ‘India AI Governance Guidelines’ (n 7).

²¹ Ministry of Electronics & Information Technology, ‘India AI Governance Guidelines’ (n 7) (institutional framework) lists MeitY, MHA, MEA, DST, DoT, TRAI, CCI, RBI, SEBI, IRDAI- and not MoEFCC.

²² Government of India, India’s Updated Nationally Determined Contribution (UNFCCC, August 2022) <https://unfccc.int> accessed 12 April 2026.

²³ Prime Minister’s Office, ‘PRAGATI: Pro- Active Governance and Timely Implementation’ (Government of India), available at: https://www.pmindia.gov.in/en/governance_track/pragati accessed 12 April 2026.

²⁴ Global Partnership on Artificial Intelligence, ‘India’s Lead Chair 2024’ <https://gpai.ai> accessed 12 April 2026.

Recommendations

The gaps identified above necessitate corrective measures. The Environment Protection Act 1986 and the Energy Conservation Amendment Act 2022 already provide ready statutory mechanisms to bridge these gaps.

Recommendation 1- Bringing Data Centres under Environmental Impact Assessment

The Central Government has power under Section 3 of the Environment Protection Act, 1986 to issue a gazette notification specifying any industry or activity as requiring mandatory environmental compliance.²⁵ This provision has been used to regulate thermal power plants, infrastructure projects and chemical industries. A single gazette notification require no parliamentary amendments or new law; it can easily bring AI Data Centres above a specified capacity threshold under the same rules for Environmental Impact Assessment, emission reporting and energy efficiency standards.²⁶ The same provisions which regulate a steel plant can also regulate a GPU cluster.

Recommendation 2- Making Renewable Energy Mandatory, Not Optional

The Draft Data Centre Policy 2025 is still under consultation, should mandatorily comply with India's Nationally Determined Contribution commitments as a condition precedent to approval. Additionally, data centres above a specified power draw should be designated as 'designated consumers' under section 14 and 14A of the Energy Conservation Amendment Act 2022, subjecting them to mandatory energy audits and efficiency reporting an instrument already applied to other large energy consumers that requires no new law.²⁷ This means requiring a minimum percentage of renewable energy sourcing a mandatory condition for granting infrastructure status, rather than an optional incentive and obtaining cross-ministerial approval from MoEFCC before any clearance is granted. Renewable energy sourcing as a binding condition; not a voluntary incentive and MoEFCC sign-off as a prerequisite and not an afterthought. No new law is required only a political will to coordinate what the 'whole of government' approach already promises.²⁸

Conclusion

'Innovation over precautionary restraint' is a guiding principle adopted by India's AI

²⁵ Environment Protection Act (n 17).

²⁶ Environment Impact Assessment Notification (n 16).

²⁷ Energy Conservation (Amendment) Act 2022, ss14, 14A.

²⁸ Ministry of Electronics & Information Technology, 'India AI Governance Guidelines' (n 7).

Governance Policy. The Precautionary Principle is not a mere policy preference; it is an established law of the land, firmly established in *Vellore* (1996) by the Supreme Court and given statutory force under National Green Tribunal Act, 2010 and reaffirmed as a fundamental right under Article 21 in *MK Ranjitsinh* (2024). Choice between the two could be a political debate in many countries but for India it is a constitutional command.

The Draft Data Centre Policy 2025 is not yet finalized. The IndiaAI Mission is not yet complete. It is a live window to act; the recommendations proposed here require no new legislation; an EPA notification, a Nationally Determined Contribution clause in the Draft Data Centre Policy 2025 and Energy Conservation Act designation will suffice. India already possesses working models for cross-ministerial coordination, PRAGATI being a prime example and yet AI governance has not adopted such scheme.²⁹ These are not brakes on Artificial Intelligence; rather a few conditions for responsible AI infrastructure. Green AI can be adopted by ‘sustainability by design’ and not retrofitted after damage.

Justice Chandrachud in *MK Ranjitsinh* (2024) observed that India’s governing branches remain misaligned on climate legislation. This article has shown that the same gap exists in AI governance. India’s environmental jurisprudence offers a ready roadmap which must urgently be integrated into AI governance, carving a path for Green AI that upholds constitutional duties and boosts sustainable innovation.

²⁹ Prime Minister’s Office, ‘PRAGATI’ (n 23).