



Chintan
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EVENT REPORT



ROADMAP FOR AI AND SUSTAINABILITY IN INDIA

Mapping India's AI Value Chain Through Distributed
and Sustainable Compute Infrastructure

16 APRIL 2026



ABOUT CHINTAN RESEARCH FOUNDATION

Chintan Research Foundation (CRF) is an emerging independent think tank dedicated to shaping policy through rigorous research and thought leadership. With a strong focus on fostering collaboration between policymakers and industry, CRF integrates practical insights into its research and advocacy efforts. It conducts comprehensive research to support informed decision-making and engages with stakeholders through discussions, events, and publications. CRF's research is focused on three core areas – Climate Change & Energy Transition, Economy & Trade, and Geopolitics & Strategic Studies. The Centre for Climate Change & Energy Transition aims to be a research and expertise hub, focusing on sustainable and clean energy, environmental stewardship, and climate actions.

For further information about CRF, please visit: crfindia.org

ABOUT THE DIALOGUE

The Dialogue is a public-policy think tank with a vision to drive a progressive narrative in India's policy discourse. Founded in 2017, we believe in facilitating well-researched policy debates at various levels to help develop a more informed citizenry, in areas around technology and development issues. With its ninth-year running, The Dialogue has focused its attention on building a credible and constructive voice in India's technology policy discourse. We are the country's leading think tank, having been recognised as one of the top 10 think tanks to watch out for by the University of Pennsylvania. The Dialogue is now recognised as a leading change maker in India's policy discourse, working and engaging closely with policy-makers, parliamentarians, government officials, and stakeholders such as the media, research community, corporates, and academia.

For further information about The Dialogue, please visit: thedialogue.org.in

Roundtable Discussion

ROADMAP FOR AI AND SUSTAINABILITY IN INDIA

Mapping India's AI Value Chain Through Distributed
and Sustainable Compute Infrastructure

16 April 2026 | The Grand, New Delhi



CONTENTS

01	Welcome Address	2
02	Opening Address	2
03	Context Setting Presentation.....	3
04	Guest Addresses	3
05	Summary of Discussion.....	4
06	Closing Remarks.....	7
07	Next Steps	7



India's Artificial Intelligence (AI) ambitions are entering a new and decisive phase. As a leader in data generation, India is positioned to play a defining role in the future of the global AI economy. However, the future of AI in India will not be determined solely by algorithms or AI applications, but it will depend on the design, location, and sustainability of the infrastructure that powers AI computation at a large scale.

In this context, the Chintan Research Foundation and The Dialogue jointly organised a roundtable discussion with Intel as a technical partner on April 16 2026, in Delhi to design a sustainable AI infrastructure roadmap for India by advancing compute architectures, setting environmental benchmarks, and aligning policy frameworks across the AI value chain.

Attended by more than 40 stakeholders from industry, academia, and policy research, the roundtable featured discussants from ACPET, AEEE, Alethe Labs, AMD, CEEW, CRID India, Finovista, HPE, ICRIER, Ikigai Law, Infineon Technologies, Intel, Karya AI, Lightstorm, Nangia Global, Narnix Technolabs, NFPRC, NTPC, PowerSoft, QuantampassTech, Riding Sunbeams, Salesforce, TERI, and the US-India Strategic Partnership Forum.

WELCOME ADDRESS



MS JAMEELA SAHIBA
Associate Director
The Dialogue

Ms Jameela Sahiba, Associate Director at The Dialogue, welcomed all speakers and discussants and set the tone for the session. She provided an overview of the initiative and highlighted why the roundtable is both relevant and timely in the current policy and technological landscape.

OPENING ADDRESS



DR DEBAJIT PALIT
Centre Head, Climate Change
and Energy Transition
Chintan Research Foundation

Dr Debajit Palit, Centre Head, Climate Change and Energy Transition at Chintan Research Foundation, in his opening address, highlighted that India stands at a critical juncture in its digital and infrastructure journey, particularly following the momentum generated by the recent India AI Impact Summit. He emphasised that while AI growth is inevitable, the key challenge lies in powering this expansion sustainably without exacerbating energy and environmental pressures. Citing rising data centre energy demands, he underscored the need to align “AI for energy” with “energy for AI.” Dr Palit stressed that AI could enhance grid efficiency and renewable integration, but must be supported by sustainable infrastructure, decentralised planning, and policy frameworks that ensure resilience, efficiency, and inclusivity.

CONTEXT SETTING PRESENTATION



MS MEEMANSA AGARWAL
Program Manager
The Dialogue

The context-setting presentation was delivered by Meemansa Agarwal, Program Manager at The Dialogue. She outlined the key themes guiding the discussion, including AI as a value chain rather than a single layer, the need for distributed infrastructure and heterogeneous compute systems, and the interlinkages between energy systems and the growth of AI infrastructure.

GUEST ADDRESSES



**MR RAVI SHANKAR
PRAJAPATI**
Joint Director at the Bureau of
Energy Efficiency

Mr Ravi Shankar Prajapati, Joint Director at the Bureau of Energy Efficiency, delivered the Keynote Address representing the Director General, Bureau of Energy Efficiency. In his address, he emphasised that India's vision for artificial intelligence must prioritise affordability and accessibility. He noted that the Bureau of Energy Efficiency is actively exploring the integration of AI into energy efficiency programmes to enhance outcomes. Highlighting industry perspectives, he observed that stakeholders are increasingly seeking AI-driven solutions for data analysis and optimisation of plant operations. He further underlined that accelerated adoption of AI can lead to improved industrial performance, reduced cost of goods and services, and enhanced energy optimisation. Along with large enterprises, he stressed the importance of developing AI solutions that are tailored to the needs of small and medium enterprises (SMEs) to ensure wider and more inclusive adoption.



**MS. SHREEPPRIYA
GOPALAKRISHNAN**
DGM Policy, IndiaAI,
Ministry of Electronics & IT
(MeITY)

After this address, the discussion paper titled "GREENING THE CODE: A Roadmap for Environmentally Responsible AI Innovation in India," prepared by the Chintan Research Foundation (CRF) and The Dialogue team, was formally released.

Ms. Shreeppriya Gopalakrishnan, DGM Policy, IndiaAI, Ministry of Electronics & IT (MeITY), in her Special Address, observed that AI infrastructure isn't just hardware but an interconnected system spanning hardware, software, data, energy, and institutions, thus requiring an ecosystem approach to bridge AI ambitions with real-world resource constraints.



SUMMARY OF DISCUSSION

The moderated discussion brought together policymakers, industry practitioners, researchers, and technology experts to deliberate on the complex relationship between rapid AI growth and sustainability imperatives in India. The session explored systemic challenges across energy, infrastructure, policy, and technology design, while emphasising the need for coordinated, lifecycle-based approaches to sustainable AI development. The discussion was anchored in the recognition that AI is not merely a technological tool, but a foundational infrastructure shaping economic, social, and environmental trajectories. The discussion was moderated by Dr Debajit Palit and Mr. Kamesh Shekar, Associate Director, The Dialogue.

Key Discussion Points

- Discussants acknowledged that India is at a critical juncture where accelerating AI capabilities is essential for economic competitiveness, yet this growth must be aligned with responsible resource use. Sustainability was framed not narrowly as energy efficiency, but more broadly encompassing resource management, circularity, environmental impact, and social implications. The need for a system-wide perspective rather than isolated interventions was emphasised.
- Closely linked to this was the challenge of ecosystem coordination. While multiple stakeholders are already contributing to sustainability efforts, the discussion highlighted a lack of coherence and alignment across the AI value chain. Participants stressed that sustainability cannot be achieved through fragmented actions; instead, it requires concerted and coordinated efforts, supported by shared best practices, common metrics, and collaborative platforms.

- Participants also highlighted the importance of compute infrastructure design and optimisation. A key concern was the current over-reliance on GPU-centric, training-heavy architectures. The discussion explored the concept of compute-workload matching, advocating for heterogeneous computing systems that align infrastructure with specific use cases. Given that India is likely to be an inference-heavy market, there is significant potential to reduce energy consumption by adopting diverse processor architectures such as TPUs and NPUs, and by deploying smaller, task-specific models.
- A substantial portion of the discussion focused on data centre infrastructure, which lies at the heart of AI's environmental footprint. Participants examined performance metrics such as Power Usage Effectiveness (PUE), noting that while incremental improvements are valuable, greater gains can be achieved by enhancing core compute efficiency: the “left side of the decimal.” Innovations at the chip, server, and system design levels were identified as critical levers for reducing energy consumption.
- The conversation also addressed the transition in cooling technologies, particularly about air cooling and liquid cooling. While liquid cooling offers significant efficiency advantages, it introduces new challenges related to water consumption—an especially critical issue in the Indian context. Water scarcity was identified as a more immediate constraint than energy in many regions, necessitating careful consideration of data center siting and technology choices.
- In this context, strategic siting of data centers emerged as a key discussion point. Participants highlighted the need to consider water availability, energy access, land use, and community impact when determining locations. The risks of geographic clustering—particularly in coastal regions—were noted, along with the potential benefits of distributed and edge data centers in tier 2–4 cities.
- The discussion also underscored the importance of sustainability by design. Rather than treating sustainability as an afterthought, participants pointed that it must be embedded at the design stage of AI systems and infrastructure. This includes incorporating lifecycle thinking, circular economy principles, and environmental metrics from the outset. Without measurable benchmarks, sustainability claims risk becoming superficial or misleading.
- Another significant theme was the lack of standardized metrics and disclosure frameworks. While initiatives such as voluntary energy benchmarking for AI models were discussed, there remains no consensus on measurement parameters. Participants suggested starting with light-touch reporting mechanisms to build an evidence base, which can later inform more robust regulatory standards.
- The policy landscape was identified as fragmented and underdeveloped. India currently lacks a comprehensive national data center policy, with existing frameworks largely driven by individual states. This has led to inconsistencies and a tendency to prioritize investment attraction over sustainability considerations. The need for aligned central and state policies, as well as context-sensitive standards, was strongly emphasized.
- Finally, the discussion touched on equity and social considerations, including the competing demands on limited resources such as electricity and water. Participants highlighted the need for inclusive growth that does not exacerbate regional disparities.

Recommendations from the roundtable

- Develop a comprehensive national data centre and AI infrastructure policy integrating sustainability, with clear guidance on siting, resource use, and technology standards.

- Align central and state frameworks through a coordinated governance mechanism for data centre development.
- Create an open-source, system-level siting tool incorporating water stress, energy availability, climate risks, and infrastructure capacity.
- Promote strategic siting of data centres based on renewable energy availability, environmental conditions, and resource efficiency.
- Encourage innovative infrastructure approaches such as underground facilities and adaptive reuse to reduce environmental impact.
- Mandate advanced technology standards, including efficient cooling systems and next-generation infrastructure solutions.
- Adopt a lifecycle-based sustainability approach covering energy, water, emissions, and material use from design to disposal.
- Develop standardised, multi-dimensional sustainability metrics and benchmarking frameworks for AI infrastructure.
- Introduce phased disclosure mechanisms, beginning with voluntary reporting and moving toward regulatory compliance aligned with financial authorities.
- Integrate sustainability and risk considerations into financing frameworks, including transition, physical, and technological risks.
- Promote heterogeneous, workload-aware computing architectures and reduce dependence on energy-intensive GPU-centric systems.
- Encourage development and adoption of smaller, task-specific AI models to improve efficiency.
- Support SMEs through targeted AI adoption programs, including subsidies, tools, and technical assistance.
- Incentivise energy-efficient AI infrastructure through targeted fiscal measures and policy support.
- Foster innovation in cooling and energy technologies, including liquid cooling, desalination, and alternative fuels, with careful assessment of trade-offs.
- Leverage AI applications in energy systems to improve efficiency, optimise operations, and build an evidence base for sustainable deployment.

Key Takeaways

Based on the discussions and recommendations, here are the key takeaways from the session

- Adopt a systems-level approach to AI sustainability, aligning technology, infrastructure, policy, and societal priorities to address the scale of future demand.
- Embed “sustainability by design” as a core principle, ensuring environmental considerations are integrated at the earliest stages of AI and data centre development.
- Develop India-specific solutions by prioritising local resource constraints—especially water availability—alongside climate, infrastructure capacity, and socio-economic realities.
- Move beyond PUE by adopting multi-dimensional sustainability metrics covering carbon intensity, water usage, resilience, and regional context to guide investment and prevent greenwashing.
- Establish water as a core policy and operational metric, including integration of Water Usage Effectiveness (WUE) and community impact considerations into planning frameworks.
- Promote heterogeneous and workload-aware infrastructure, aligned with India’s inference-heavy demand, to avoid inefficiencies of GPU-centric, training-focused systems.

- Encourage distributed data centre models across tier 2–4 cities to reduce grid stress, environmental concentration, and regional disparities.
- Leverage AI as an enabler of sustainability, particularly in energy optimisation, efficiency improvements, and system-level resource management.
- Invest in robust data ecosystems and high-quality datasets to unlock AI's full potential in sustainability applications.
- Support innovation in cooling technologies, particularly liquid cooling, while assessing environmental trade-offs and enabling flexible siting opportunities.
- Develop a coordinated national policy framework to address fragmented state approaches, with tiered and binding sustainability standards.
- Adopt pragmatic, adaptive governance models that are risk-aware, flexible, and iterative, balancing long-term ambition with implementation feasibility.
- Enable a virtuous growth cycle for AI, where sustainability considerations drive innovation, competitiveness, and long-term resilience rather than resource strain.

CLOSING REMARKS



MR. KAMESH SHEKAR
Associate Director,
The Dialogue

Concluding the roundtable, Mr. Kamesh Shekar, Associate Director, The Dialogue, emphasised the need for every single player within the ecosystem to contribute towards all the discussed aspects. Having a much more coordinated and a concerted fashion to bring out the best practices and work on the limitations to find effective solutions, which can be maximised towards achieving the shared goal of sustainability in the AI framework.

NEXT STEPS

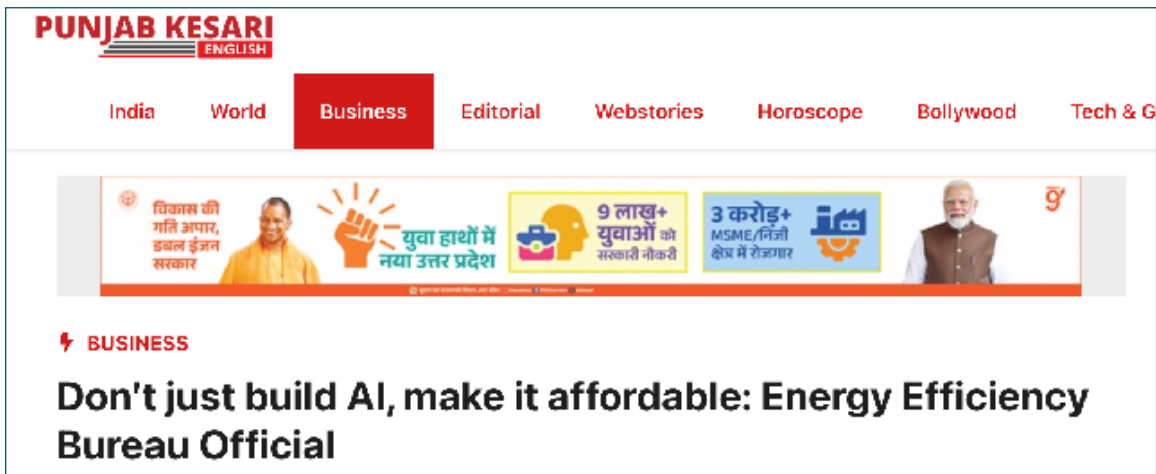
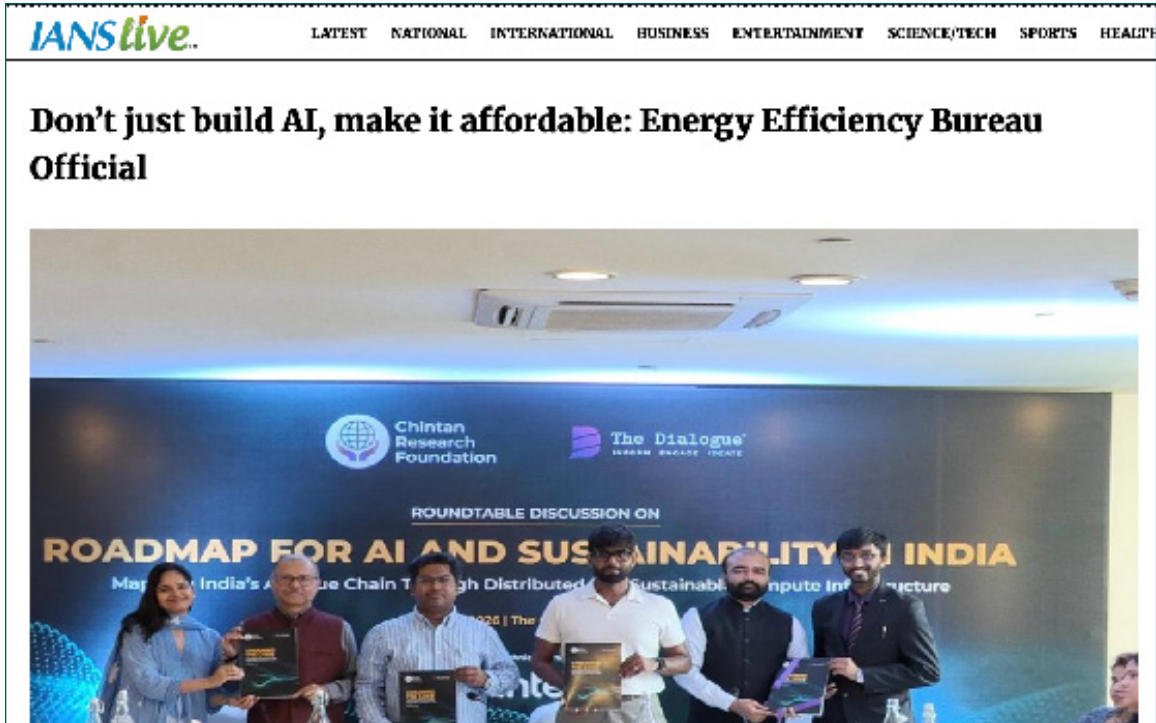
This roundtable is the first in a planned series examining India's AI value chain. The discussion was framed around India's technological and economic future, with emphasis on building a collaborative approach to address sustainability challenges in the AI ecosystem. The goal is to produce a comprehensive policy brief within the next quarter for submission to relevant ministries and other stakeholders.

Agenda

Schedule	Particulars
2:45 pm-3:00 pm	Registrations & Tea
3:00 pm-3:10 pm	Welcome Address <ul style="list-style-type: none"> Ms Jameela Sahiba, Associate Director, The Dialogue
3:10 pm-3:20 pm	Opening Address <ul style="list-style-type: none"> Dr Debajit Palit, Centre Head, Climate Change and Energy Transition, Chintan Research Foundation
3:20 pm-3:30 pm	Context Setting Presentation by The Dialogue
3:30 pm-3:45 pm	Keynote Address <ul style="list-style-type: none"> Mr Ravi Shankar Prajapati, Joint Director, Bureau of Energy Efficiency, Govt. of India
3:45 pm-3:55 pm	Special Address <ul style="list-style-type: none"> Ms Shreeppriya Gopalakrishnan, DGM Policy, IndiaAI, Ministry of Electronics & IT, Govt. of India
3:55 pm-4:00 pm	Release of Discussion Paper “GREENING THE CODE: A Roadmap for Environmentally Responsible AI Innovation in India”
4:00 pm-5:25 pm	Moderated Roundtable Discussion Moderators – Dr Debajit Palit, Centre Head, Chintan Research Foundation & Mr Kamesh Shekar, Associate Director – Strategy & Research, The Dialogue
5:25 pm-5:30 pm	Closing Remarks
5:30 pm onwards	High-Tea and Networking



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