KlimaNEXIS 2026

Key takeaways and summary

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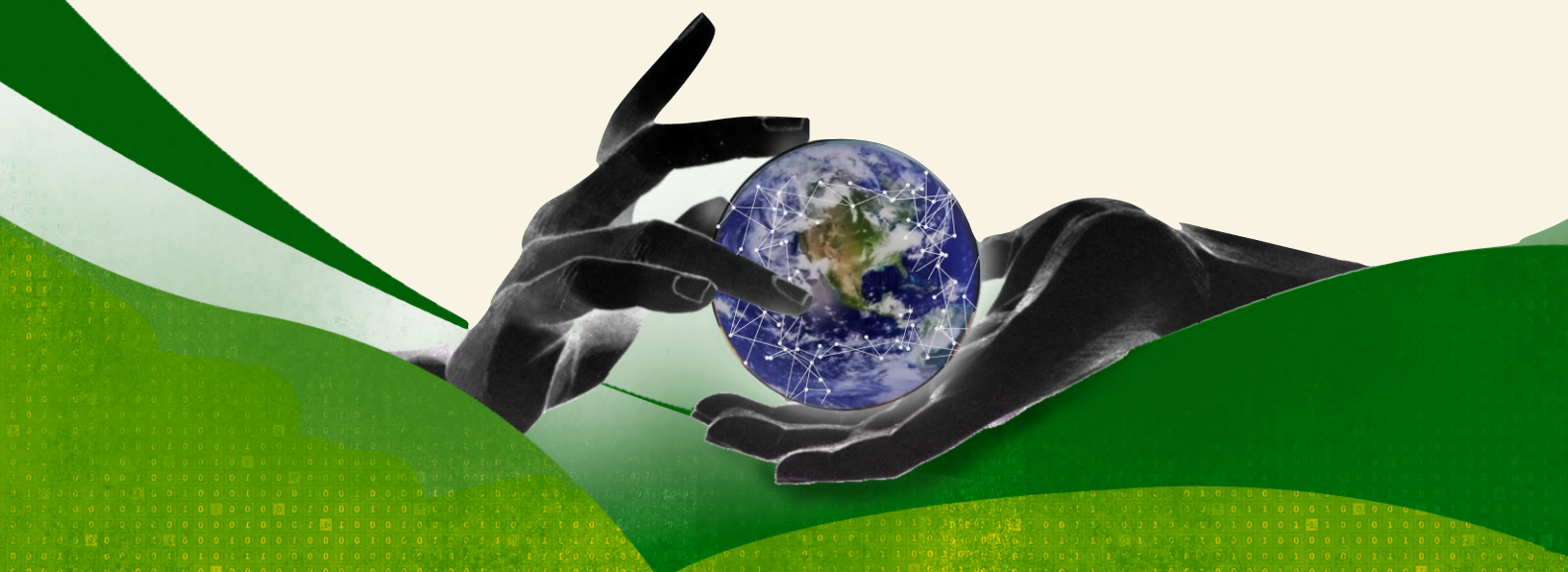


From Scientific Strength to Scaled Impact: Aligning India's Climate Innovation Ecosystem

The inaugural interaction set the strategic context for KlimaNEXIS 2026, marking the launch of a platform organized by Indian Institute of Technology Delhi and supported by The Rockefeller Foundation to translate climate science into real-world, competitive enterprises. Climate change was framed as a defining challenge of the 21st century, with India uniquely positioned to lead given its scientific depth and entrepreneurial talent.

(L-R) Prof: Preeti Ranjan Panda, Deepali Khanna, Prof: Somanth Baidya Roy

Speakers emphasized that scale will depend on aligning public investment with private innovation, advancing inclusion and resilience, and accelerating deployment without compromising scientific integrity. The Foundation's "Big Bets" approach was highlighted as a catalytic model for addressing climate's intersections with health, food, and energy systems through risk-taking and ecosystem-level action.

The discussion also noted the growing climate footprint of digital infrastructure and the need for interdisciplinary solutions. IIT Delhi's incubation ecosystem was presented as a strong but evolving pipeline, while the persistent "missing middle" in deployment-stage funding and last-mile execution challenges underscored the need for new innovation architectures that better connect research with real-world impact.

Key takeaways

- **India's opportunity lies in execution:** Strong science and talent exist, but scale will require tighter alignment across policy, capital, markets, and institutions.
- **Catalytic models matter:** Risk-taking philanthropy, blended finance, and ecosystem convening are essential to bridge the "missing middle" between research and deployment.
- **Design for the last mile:** Credible measurement, inclusion, and real-world constraints must shape solutions from the outset to ensure durability and impact.

Creating the Conditions for Scale: Markets, Policy Certainty, and Long-Term System Design

This session examined the realities of financing climate solutions in India, with a focus on biomass technologies, carbon markets, and the role of policy in achieving net-zero goals. Speakers highlighted India's distinctive innovation model characterised by cost efficiency, bootstrapping, and region-specific solutions, while noting that climate and energy operate within a hybrid system of markets and regulation, where affordability remains a central constraint. A key focus was the weak economics of biomass technologies at scale, driven by emerging conversion technologies, rising feedstock costs, and the absence of carbon pricing. Panellists emphasised that without credible carbon pricing or compliance markets, biomass and biochar solutions struggle to compete with fossil alternatives.

Key takeaways

- **Economics matter:** Many climate solutions are technically viable, but struggle to scale due to cost structures, feedstock constraints, and the absence of credible carbon pricing.
- **Capital is the bottleneck:** High cost of equity and weak growth capital constrain scale, making blended finance essential.
- **Policy enables markets:** Credible carbon pricing, supply-side support, and institutional financing mechanisms are critical to unlock investment

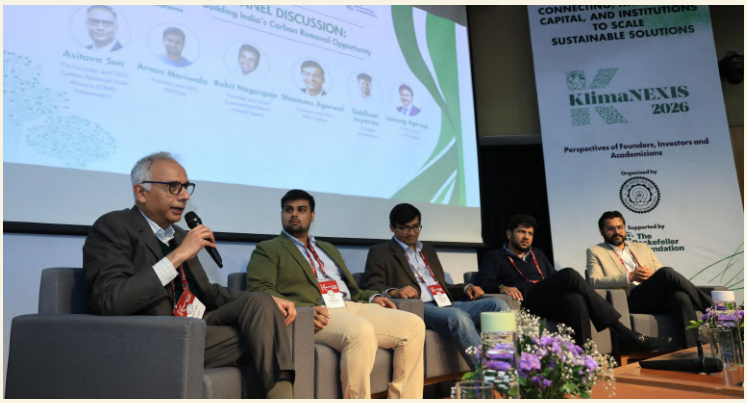
(L-R) Pratibha Jain, Jayant Sinha, Prof: Rangan Banerjee

The discussion also surfaced major capital structure constraints, including India's high cost of equity and limited availability of growth-stage capital for climate ventures. Blended finance and supply-side interventions, such as subsidising the cost of capital through a national green financing institution, were identified as more practical than demand-side measures like carbon taxes. The session concluded by stressing that climate should not be treated as a standalone asset class, but embedded across all investment decisions, with concessional capital supporting early technology maturation and commercial capital entering only when solutions are truly ready to scale.

Carbon Dioxide Removal (CDR): Pathways, Markets, and Integrity

The conversation examined a range of CDR pathways including both nature-based solutions like regenerative agriculture and engineered approaches such as biochar, ERW, and marine CDR and assessed India's potential to become a globally relevant CDR hub, supported by abundant biomass, favorable climate, agricultural scale, and significant cost advantages.

A central theme was that carbon removal must be treated as a data-backed product, where credibility



(L-R) Asitava Sen, Arnav Mariwala, Shantanu Agarwal, Siddhanth Jayaram, Umang Agarwal

depends on measurement accuracy, transparency, and conservative accounting. Panelists emphasized that high-quality MRV is technically complex and expensive, but essential to maintaining trust among buyers, policymakers, and communities. Cutting corners on accuracy was seen as a systemic risk that could undermine both markets and long-term climate outcomes.

The discussion highlighted the need for a portfolio approach across nature-based and engineered pathways, balancing cost, permanence, and scalability. Participants noted that durable scale will depend on product-led models, long-term capital, and policy engagement, with carbon credits functioning as a co-benefit rather than the sole revenue driver. The session concluded by underscoring that India's opportunity lies not only in lower-cost removal, but in demonstrating how high-integrity, data-driven CDR can be deployed responsibly at scale.

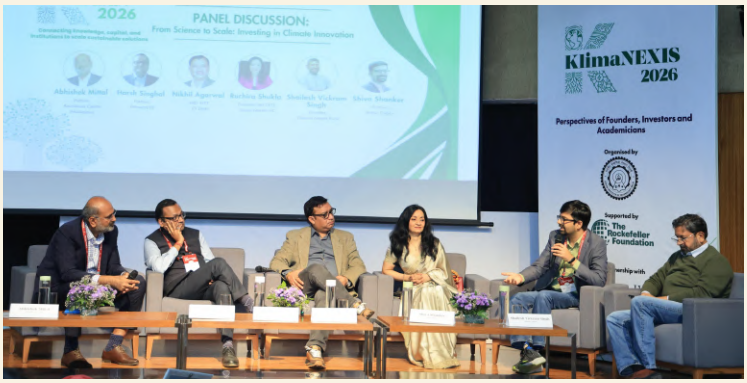
Key takeaways

- **Carbon is a data product**: Value and credibility depend on accuracy, transparency, and rigorous MRV.
- **Accuracy is expensive but essential:** High-quality measurement underpins market trust and long-term viability.
- **Portfolios over silver bullets**: Scaling CDR requires multiple pathways, long-term capital, and policy alignment.

Bridging the Missing Middle: Capital, Risk, and Pathways From Pilots to Markets

The discussion brought together angels, venture capital, and growth investors to examine gaps across technology readiness, capital structuring, and market adoption.

Panelists stressed that capital alone does not create climate companies. Successful ventures require early alignment between researchers, founders, and investors, with clear commercialisation pathways and realistic timelines. Climate deep tech demands patience, as early funding is primarily used to achieve product–market fit and mature technologies rather than rapid sales growth.



(L-R) Abhishek Mittal, Harsh Singhal, Nikhil Agarwal, Ruchira Shukla, Shiva Shanker, Shailesh Vickram Singh

Key takeaways

- **Readiness before capital:** Deep tech must mature technically and commercially before large investment.
- **Markets enable scale:** Demand creation and risk sharing are as critical as funding.
- **Long-term alignment:** Climate ventures require sustained investor-founder commitment over multiple years.

A key constraint identified was weak market pull. Indian climate innovations often face trust and procurement barriers, forcing validation in international markets before domestic adoption. Unlike renewable energy, where government-created demand accelerated scale, many climate solutions still lack demand-side support and risk-sharing mechanisms. Panelists also highlighted the limited role of Indian corporates in driving climate innovation, noting low R&D spending, risk-averse procurement practices, and a preference for proven vendors over startups. Without stronger corporate demand, pilot guarantees, or co-development models, many climate solutions struggle to move from demonstration to scale despite technical viability. The session concluded that climate represents a long-term investment opportunity for India, but only if capital, markets, and policy evolve in tandem.

Translating Advances Into Action: From Climate Science and Data to Deployable Solutions

The Science Panel focused on how advances in climate and weather science can be translated into scalable businesses, with a strong emphasis on forecasting, agriculture, and adaptation. Speakers highlighted how deep learning and improved observational infrastructure are transforming weather prediction into a high-value climate adaptation tool, especially for food security, disaster risk reduction, and energy planning.

India's public investments through initiatives like Mission Mausam, expanded radar networks, satellites, and open data APIs are creating a strong foundation for startups and researchers to build hyper-local, decision-ready solutions. The discussion also underscored that while data availability has improved dramatically, adoption

(L-R) Prof: Sandeep Sukumaran, Dr. Ashim Kumar Mitra, Dr R.N Sahoo, Prof: Rajarshi Dasgupta

depends on trust, standardization, and cooperative models suited to India's fragmented agricultural and ecological systems.From a policy perspective, speakers emphasized the need for coordinated, multi-ministry frameworks that enable cooperative procurement, support long-term technology deployment, and align incentives so that science-based solutions can scale sustainably at the village and district levels.

Key takeaways

- **Science to Business:** Accurate, hyper-local weather and climate data is becoming a core adaptation and commercial asset, especially for agriculture and disaster management.
- **Data , Trust:** Open data and advanced infrastructure exist, but adoption hinges on standardization, validation, and farmer-centric delivery models.
- **Next Shift:** The opportunity lies in prescriptive AI and integrated decision systems that convert forecasts into actionable, on-ground outcomes.

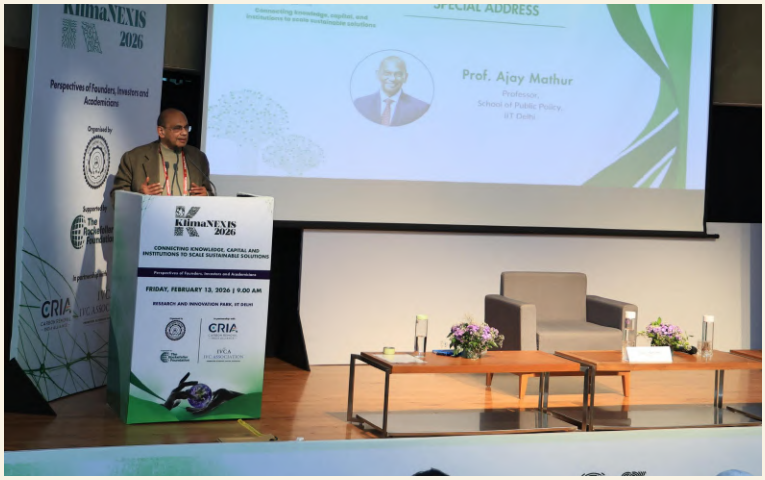
The session concluded that the next frontier is moving from predictive to prescriptive AI, backed by reliable data, farmer-centric deployment models, and closer coordination across science, policy, and enterprise to turn climate intelligence into real-world impact.

The Role of Public Policy: Enabling Scale Through Predictable and Integrated Frameworks

In his special address, Ajay Mathur framed weather and climate information as core decision-making infrastructure rather than a forecasting service, arguing that India's next leap in climate resilience depends on converting complex meteorological data into simple, actionable intelligence. He illustrated how gaps in timing and usability-rather than lack of data, directly translate into economic losses, especially in monsoon-dependent systems.

Key takeaways

- **Data to Decisions:** Climate data delivers impact only when translated into user-ready intelligence through public–private collaboration.
- **Market First, Not Just Science:** Anchor customers, sector-specific products, and clear demand signals are essential for climate-tech scale.
- **India's Advantage:** Monsoon complexity, scale, and diversity create a global opportunity for India to lead in climate and weather intelligence solutions.



Dr. Ajay Mathur

He emphasized India's unique opportunity and challenge: highly variable geography and monsoon dynamics demand hyper-local, monsoon-specific models that conventional global approaches fail to capture. While government investment in infrastructure is essential, real value creation must come from public-private collaboration, where startups and industry transform raw data into sector-specific solutions for agriculture, energy, and urban systems.

The address underscored that climate-tech success hinges on market creation as much as science. Startups must build with anchor users from day one, speak the language of their end users, and manage resources efficiently through shared services. Platforms that leverage crowdsourced data and network effects-similar to navigation or energy optimization apps-were highlighted as powerful pathways to scale adoption.

Annexure

List of Speakers and Panelists

- **Prof. Somnath Baidya Roy** – Professor, Indian Institute of Technology Delhi; Rockefeller Foundation Climate Science and Technology Chair
- **Deepali Khanna** – Senior Vice President & Head, Asia Regional Office, The Rockefeller Foundation
- **Prof: Preeti Ranjan Panda** - Dean, Corporate Relations; Professor, CSE&SIT, IIT Delhi
- **Pratibha Jain** – Group General Counsel & Head of Strategy, Everstone Capital
- **Jayant Sinha** – President, Eversource Capital; Visiting Professor, London School of Economics
- **Rangan Banerjee** – Director, Indian Institute of Technology Delhi
- **Asitava Sen** – Co-Founder & Chief Executive Officer, Carbon Removal India Alliance (CRIA)
- **Arnav Mariwala** – Founder & Chief Executive Officer, MariTide
- **Shantanu Agarwal** – Founder & Chief Executive Officer, Mati Carbon
- **Siddhanth Jayaram** – Founder, Equilibrium
- **Umang Agarwal** – Chief Operating Officer (Carbon), Grow Indigo
- **Abhishek Mittal** – Partner, Aavishkaar Capital
- **Harsh Singhal** – Partner, ProsperETE
- **Nikhil Agarwal** – Managing Director, FITT, Indian Institute of Technology Delhi
- **Ruchira Shukla** – Founder & Chief Executive Officer, Green Marble VC
- **Shailesh Vickram Singh** – Founder & Managing Partner, Climate Angels
- **Shiva Shanker** – Partner, Ankur Capital

- **Sandeep Sukumaran** – Associate Professor, Centre for Atmospheric Sciences, IIT Delhi; Mittal Foundation Chair in Climate Sciences
- **Ashim Kumar Mitra** – Head, Geospatial Applications, India Meteorological Department
- **Rajarshi Dasgupta** – Associate Professor, School of Public Policy, Indian Institute of Technology Delhi
- **R.N. Sahoo** – Principal Scientist, ICAR–Indian Agricultural Research Institute
- **Ajay Mathur** – Professor of Practice, School of Public Policy, Indian Institute of Technology Delhi

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Indian Institute of Technology Delhi is one of the 23 IITs created to be Centres of Excellence for training, research and development in science, engineering and technology in India. Established as College of Engineering in 1961, the Institute was later declared as an Institution of National Importance under the "Institutes of Technology (Amendment) Act, 1963" and was renamed as "Indian Institute of Technology Delhi". It was then accorded the status of a Deemed University with powers to decide its own academic policy, to conduct its own examinations, and to award its own degrees.

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The Rockefeller Foundation is a philanthropic foundation that promotes the well-being of humanity by finding and scaling solutions that advance opportunity and reverse the climate crisis. Today the Foundation uses advances in power, health, food, and finance sectors to ensure everyone has good jobs, good food, good health, and more at a time when climate change's effects are taking lives and undermining livelihoods.

Contact: https://www.rockefellerfoundation.org/about-us/contact/

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CRIA- Carbon Removal India Alliance (CRIA)

The Carbon Removal India Alliance (CRIA) is the only non-partisan industry-led coalition and ecosystem organisation dedicated to catalysing and supporting the growth of a thriving durable carbon dioxide removal sector in India. It exists to accelerate the development, commercialisation, deployment, and co-benefits of CDR technologies in India. Through research, advocacy, dialogues and partnerships, and ecosystem-building, CRIA works at the intersection of climate action and innovation. Most of the leading Indian CDR industry players are CRIA members.

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IVCA - Indian Venture and Alternate Capital Association

Established in 1993, the Indian Venture and Alternate Capital Association (IVCA) is a non-profit organization that serves as a prominent apex industry body dedicated to promoting the alternate capital industry and nurturing a thriving investment environment in India. IVCA is resolutely committed to bolstering the ecosystem by advocating regulatory interventions, facilitating constructive dialogues with the Government of India, policymakers, and regulators. This collaborative approach fosters increased entrepreneurial activity, innovation, job creation, and contributes to positioning India as a pre-eminent fund management hub.

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For ideas that endure, solutions that scale.

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