

An abstract geometric pattern in the top left corner consisting of several concentric hexagons, a smaller hexagon to the left, and a grid of dots above. Lines with small crosses at their ends extend from the hexagons.

From proof-of-concept to proof-of-practice

in Climate Tech

Case study of how climate tech startups globally support their local economies and ecosystem stakeholders



Abbreviations

- AFOLU:** Agriculture, Forestry and Other Land Use
- AI:** Artificial Intelligence
- BAT:** Brooklyn Army Terminal
- BECCS:** Bioenergy with carbon capture and storage
- BE&UR:** Built-Environment & Urban Resilience
- CAGR:** Compound annual growth rate
- CCF:** Climate Collective Foundation
- CCUS:** Carbon capture, Utilisation and Storage
- CEFC:** Clean Energy Finance Corporation
- CGF:** Canada Growth Fund
- CRADLE:** Center for Robotic-Augmented Design in Living Experiences
- CrA&FS:** Climate-resilient Agriculture & Food Systems
- CR&U:** Carbon Removal & Utilisation
- CTSE:** Climate Tech Startup Ecosystem
- C\$:** Canadian Dollar
- ET:** Energy Transition
- EU:** European Union
- EV:** Electric vehicle
- GDP:** Gross Domestic Product
- ICE:** Innovative Clean Energy
- IC&RE:** Industrial Circularity and Resource Efficiency
- ID:** Industrial Decarbonisation
- IP:** Intellectual property
- IPMC:** IP Management Clinic
- MRV:** Measurement, Reporting and Verification
- M&T:** Mobility & Transportation
- NYCEDC:** NYC Economic Development Corporation
- NYSERDA:** New York State Energy Research & Development Authority
- PPP:** Public-private partnerships
- PV:** Photovoltaics
- SEK:** Swedish Krona
- SMEs:** Small and Medium-sized Enterprises
- SSEF:** Shakti Sustainable Energy Foundation
- USD:** United States Dollar
- WIPO:** World Intellectual Property Organisation
- WR&R:** Waste Reduction & Recycling
- WS&M:** Water Security & Management



Disclaimer

The practices discussed in this document are for educational and informative purposes.

Every effort has been made to ensure the authenticity of data and information used herein. However, CCF cannot be held legally liable for the accuracy of the data used from public sources as this is not primary research data. Nor does it accept legal liability for inferences drawn from the material contained herein or any consequences arising from its use.

No part of this document may be reproduced in any form (electronic or mechanical) without prior permission from or intimation to CCF.

Climate Collective Foundation (CCF) functions as an ecosystem orchestrator, bringing together diverse stakeholders, institutions, and initiatives to strengthen and scale India's climate-tech ecosystem. It operates India's largest climate-tech startup support platform, supporting over 1,400 startups.



Scan to check our
Impact Report

Acknowledgements

Supervision: Nalin Agarwal
Author: Ayushi Govil
Support: Aiswarya Krishnan
Design: Ayushi Govil, Meelad Badri,
Praveen Kumar Singh

Special thanks:
SSEF: Antara Bose, Ramanshu Ganguly
Intellectap: Aali Sinha, Sharlo Zack



Preface

The global policy landscape is undergoing a decisive shift as countries confront the dual challenges of accelerating climate action and driving economic transformation. Scientific evidence continues to reinforce the need for urgent and coordinated action to limit global warming, reduce emissions, and build climate-resilient economies. Simultaneously, **governments are seeking new pathways to create jobs, enhance productivity and ensure inclusive growth.**

In this context, innovation and climate technologies have emerged as critical enablers of green transitions. Climate tech encompasses a wide spectrum of solutions across clean energy, mobility, agriculture, buildings, circular economy, carbon management and adaptation technologies. Around the world, startups and enterprises in this space are playing a transformative role, from decarbonising hard-to-abate sectors to enabling efficient resource use and building resilient urban systems.

Interestingly, the strategic importance of this sector extends beyond environmental outcomes. Countries that invest in climate tech are positioning themselves at the forefront of next-generation industries. Such investments can stimulate new markets, generate high-quality green jobs, attract international capital and enhance energy and resource security. **Climate tech is therefore increasingly seen not just as a climate imperative but as a central pillar of economic transformation.**

Purpose: This report aims to provide a structured understanding of how progressive economies are building and nurturing climate tech ecosystems to achieve both environmental and economic objectives. It examines the range of policy instruments, financing mechanisms, innovation incentives and ecosystem-level interventions being deployed globally to accelerate climate tech development and deployment. By analysing these strategies, the report seeks to demonstrate how targeted support for climate tech contributes to economic growth, technological leadership, and enhanced national resilience. It also distills actionable lessons and transferable insights for emerging economies, particularly India, where climate action and economic growth must advance in tandem.

This report is designed for a diverse but strategically aligned audience:

- > Primary: Policymakers, international development agencies and climate finance institutions
- > Secondary: Investors, accelerators, incubators, research institutions and startup founders

Approach: The findings in this report are based on a combination of desk research, policy review and analysis of startup and investment data. Selected case studies are used to provide concrete examples of how structured policy support can lead to rapid ecosystem development and sustained economic benefits.

Call to Action: India stands at a pivotal moment in its development trajectory, with the opportunity to embed climate technology as a central driver of economic transformation. By creating an enabling ecosystem through strong policy signals, access to finance, and market creation mechanisms, India can accelerate the development and deployment of climate technologies at scale.

Executive Summary

Climate change has emerged as one of the defining challenges of our era, with 2024 marking the first time global temperatures breached the 1.5°C threshold. The consequences, ranging from record levels of displacement, mounting health crises and billions of dollars in climate-related losses, highlight both the urgency and scale of action needed. Amid these circumstances, climate technology (climate tech) startups are proving to be powerful engines of transformation, offering innovations that not only help in mitigation and adaptation but also reshape economies, create jobs and deliver broad social value.

This knowledge product, developed by the Climate Collective Foundation (CCF) in association with Shakti Sustainable Energy Foundation (SSEF) and Intelicap (part of Aavishkaar Group), examines how advanced economies and global leaders in climate innovation; New York, Vancouver, Stockholm and Beijing are building supportive ecosystems for climate tech startups to thrive and grow. **By documenting their policy frameworks, financing mechanisms and public-private partnerships (PPP), the study provides insights directly relevant for Indian states seeking to integrate climate resilience with economic growth by positioning climate tech startups as growth engine.** In addition, this document highlights three core reasons that drive the urgency for systemic support to climate tech startups:

- Technology commercialisation for rapid climate action
- Job creation
- Technology development as a social good

Global Case Study Insights

The 4 global case studies illustrate a spectrum of strategies that connect startups to markets, capital and institutional support:

Vancouver, Canada

layered federal (Canada Growth Fund), provincial (Innovative Clean Energy Fund), and municipal (Green Innovation Corridor) initiatives to attract private capital and accelerate commercialisation. The corridor hosts 200+ clean tech firms that collectively raised USD 2.3 billion by 2022.

New York, United States

combined state-backed insurance products, a USD 800 million fund and live testbeds (e.g., Brooklyn Army Terminal) to de-risk technologies and scale urban-ready solutions. Its green economy now contributes USD 24 billion annually to GDP and employs over 133,000 people.

Stockholm, Sweden

institutionalised access to EU/national funds and created local testbeds through utilities like Stockholm Exergi, supporting pilots in integrated energy systems and carbon capture. Green jobs already make 32.2% of the city's employment, showing how structured financing and partnerships drive climate innovation in economic planning.

Beijing, China

leveraged large-scale public investment (USD 546 billion in 2022 alone), innovation hubs to accelerate enterprise growth. By early 2025, Beijing had 669 new green enterprises, 161 green factories and 30 green supply chain enterprises, positioning climate innovation as a pillar of industrial transformation.

Across these cities, several common factors emerge:

- Clear net-zero targets embedded in policy frameworks
- Dedicated innovation hubs and piloting zones that provide startups access to real-world environments
- Risk-mitigation mechanisms such as insurance products and structured financing tools
- Strong industry-academia partnerships for talent and research
- International collaboration for technology, IP, and funding

Way forward

Globally, climate tech investment touched USD 70 billion in 2024, supporting over 44,000 startups and 3 million jobs. In contrast, India while rich in innovation has mobilised only USD 3.6 billion, with funding skewed heavily toward e-mobility. This gap underscores the need for enabling state-level ecosystems that can channel innovation into large-scale deployment. India must adapt and apply these insights at the state level, positioning climate tech as a key driver of economic growth rather than viewing it solely through an environmental lens. The forthcoming **Climate Tech Startup Ecosystem (CTSE) Readiness Framework**, designed by CCF, offers a structured pathway to do so. It evaluates state ecosystems across 6 verticals with 30 indicators and 68 data points, enabling states to identify gaps and position themselves as ecosystem enablers.

If India is to narrow its climate innovation gap, states must act decisively to integrate policy support, finance and partnerships that accelerate the transition from laboratory prototypes to market-ready solutions, in other words 'from proof-of-concept to proof-of-practice in climate tech'. The evidence from emerging economies demonstrates that this approach not only advances climate goals but also drives sustainable economic growth, job creation and resilience. Climate tech, when mainstreamed as a development priority, has the potential to redefine India's growth story in the decades ahead.



Introduction

In 2024, global temperatures breached the 1.5° C threshold for the first time and climate-related disasters internally displaced at least 45.8 million people, the highest figure on record. These escalating shocks are disrupting daily life, damaging the systems that keep societies functioning; roads, power grids, homes, supply chains, food systems, fresh water and public health infrastructure. The cost of inaction is mounting. Between 32 and 132 million people could fall into extreme poverty in 2030 due to the impacts of climate change, at least 7 million premature deaths are linked to air pollution annually and disasters caused an estimated USD 299 billion in economic losses in 2022 alone.

Challenge

Decision makers and communities are responding with ingenuity and urgency, but too often, lack the tools, long-term financing or strategies to protect their people from rising hazards

Opportunity

Climate tech (or climate technology) startups could help change that at scale if they are complemented with greater alignment with decision makers and improved ecosystem

Imagine a future where our cities run on clean energy, transport is efficient, buildings are cooler without consuming excess power and waste is not a burden but a resource. This is not distant, it is the promise of climate tech. In simple terms, climate tech refers to the technologies, innovations and solutions designed to address climate change and its impacts. It is not just about reducing emissions but about reshaping how our economies grow, how our people live and how our resources are managed. As global temperatures rise and climate-related risks become increasingly evident, climate tech emerges as a crucial enabler. Its scope is expansive and cross-sectoral, covering energy systems, industrial processes, urban infrastructure, natural resource use and more. The figure below shows the main sectors and sub-sectors where climate tech startups are growing globally and in India. It also highlights cross-cutting technologies such as Climate AI, Climate Risk tools, Climate Fintech and Blockchain, which can be applied across these sectors to strengthen their impact.

DECARBONISATION

ET

- > Clean Power Generation
- > Energy Storage & Management
- > Decarbonisation
- > Green Hydrogen & Alternate Fuels

ID

- > Fuel switching
- > Low-Carbon Materials
- > Process Optimisation & Efficiency

M&T

- > EVs & Charging Infrastructure
- > Public & Shared Mobility
- > Sustainable Trucking, Aviation & Shipping
- > Logistics & Supply Chain Decarbonisation

CR&U

- > Engineered Carbon Removal
- > NbS
- > Carbon Markets & MRV

CIRCULAR ECONOMY

WR&R

- > Plastics & Packaging Alternatives
- > Material recovery
- > e-waste & Battery Recycling
- > Food Waste & Up-cycling
- > Reuse models

IC&RE

- > Materials Innovation
- > Manufacturing & Supply Chain Circularity
- > Textile & Fashion Circularity

ADAPTATION & RESILIENCE

CrA&FS

- > Precision Agriculture
- > Alternative Proteins & Sustainable Food
- > Climate-resilient Crops
- > Agri-biotech

WS&M

- > Desalination & Water Recycling
- > Flood & Drought Management
- > Coastal & Riverine Protection

BE&UR

- > Climate-resilient Buildings
- > Cooling & Heat Stress Solutions
- > Disaster Tech/Extreme Weather Early Warning Systems

Climate AI

Climate Risk

Climate Fintech

Blockchain

Let's look at why innovations from climate tech startups need strong support, **here are 3 key reasons:**



Technology commercialisation for rapid climate action

Most of the technologies needed for the world to get to Net Zero are in early stages (lab, prototype or demonstration). Startups have proven to be an unparalleled mechanism to transform these early technologies to create solutions that are reliable, affordable and deployable at scale, quickly.



Job creation

Independent research for India shows that 'it is young establishments, not small establishments, that exhibit high employment growth'. Similar research for the US showed startups are 'net job creators'. Thus, there is a need for sustained support for startups and new businesses (in addition to existing SMEs) to create more jobs faster.



Technology Development as a social good

Research conducted by William Nordhaus shows that technology developers usually capture only a small share of the total economic value created (around 2%) while most benefits flow to society through affordable products, new services and further innovations. This means that climate technologies create broad social and economic gains well beyond the startups themselves. For state governments in India, creating an enabling environment to support climate tech innovation is not only an economic growth strategy but also a way to deliver long-term public value and resilience.

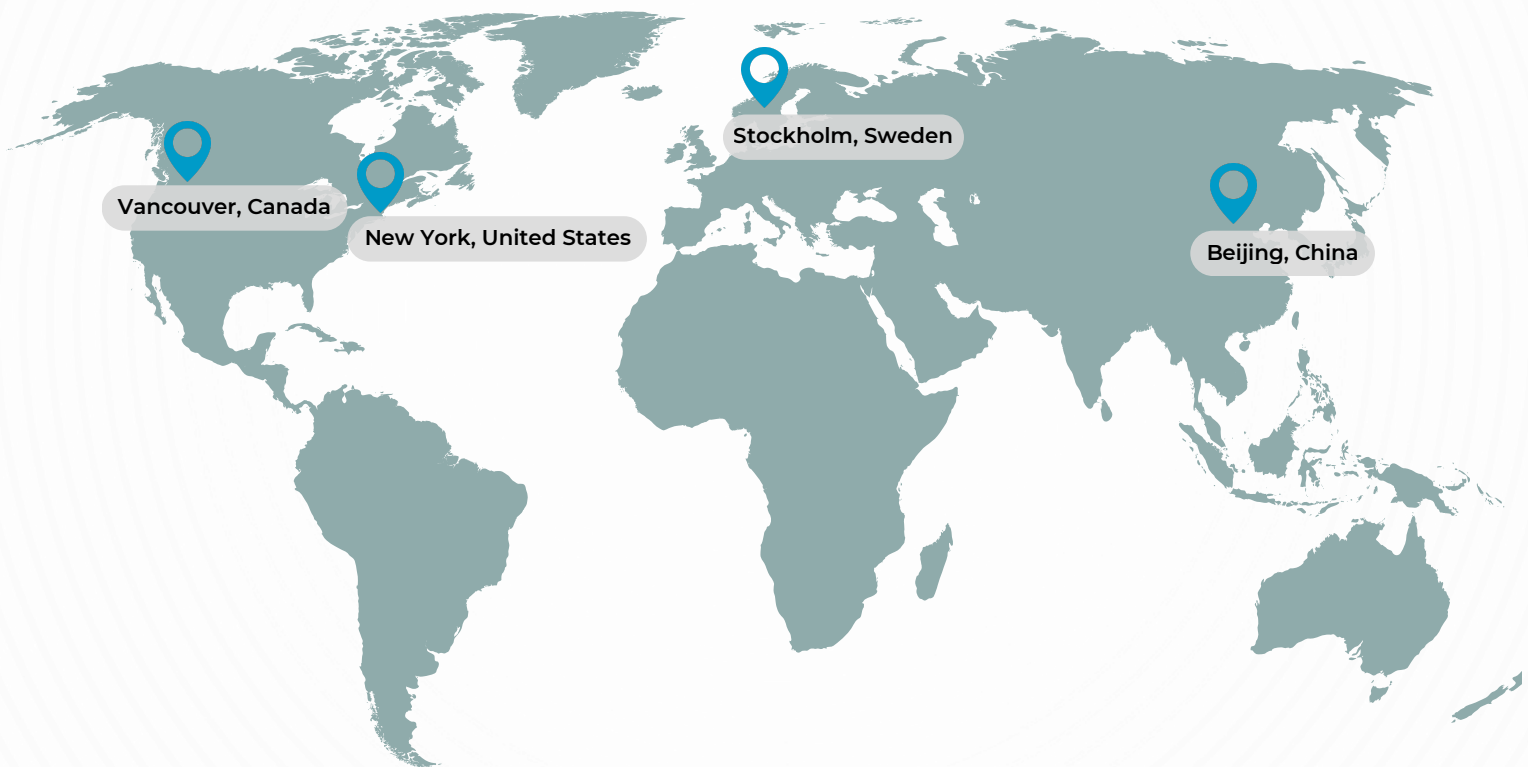
Having said that, India is not short on climate-tech innovation across start-ups, we already have the blueprints for low-carbon, resilient and energy-efficient systems. From innovations like solar micro-grids and EV infrastructure to AI-driven precision farming techniques and carbon capture technologies, a range of upcoming transformative technologies are emerging. What we lack is the machinery to take these ideas beyond the lab. For deep tech solutions, the leap from prototype to real-world deployment is daunting. **It is not just about capital; it is about test environments, risk-tolerant collaborators and public-private partnerships that allow for early-stage experimentation at scale.**

Globally, climate tech has proven its ability to scale from concept to practice, attracting nearly US \$70 billion in investment in 2024, creating close to 3 million jobs and building an ecosystem of over 44,000 startups including 90+ unicorns valued at US \$140 billion. In contrast, India's ecosystem, while rich in ideas, has seen only 25% of its climate-tech startups secure funding, collectively raising around US \$3.6 billion with most of the capital concentrated in e-mobility. This sharp gap between innovation and implementation highlights why governments, investors and development agencies must work together to unlock test environments, blended finance and policy frameworks that enable climate tech startups to transition from prototypes to scalable solutions.

Case studies

Achieving net-zero and climate resilience targets requires more than technological advancement, it necessitates a deliberate, systemic approach to enabling innovation. Cities across the globe are increasingly recognising their role as drivers of climate solutions, leveraging regulatory frameworks, fiscal instruments, and institutional coordination to nurture climate technology ecosystems.

This section examines four leading examples: New York City, Vancouver, Stockholm, and Beijing, that have demonstrated how policy innovation, targeted financing, public-private partnerships (PPP), and structured testbed mechanisms can catalyse climate tech growth. These cities have been deliberately selected to reflect varied governance models, economic contexts, and climate priorities. Each case represents a strategic approach to integrating climate innovation within broader economic planning, moving beyond isolated interventions to systemic, long-term policy frameworks.



Taken together, these case studies reveal a spectrum of strategies that can offer valuable lessons for India's emerging climate tech landscape. For India, where states are increasingly shaping their own climate and development trajectories, these global insights offer a rich evidence base.

They highlight the importance of creating enabling policy environment, aligning fiscal incentives with climate goals and embedding climate innovation within urban and industrial planning. The subsequent case studies unpack these approaches in detail; examining institutional design, financing structures and implementation mechanisms to support Indian states in developing contextual and scalable policy pathways that drive both climate and economic outcomes.

New York, United States



What policy frameworks have been implemented in New York to support the growth of climate tech ecosystem?

- Governor launched a US\$ 6.5M program to support to support new insurance policies and products to accelerate the adoption of clean technologies by consumers
- NYSERDA (New York State Energy Research & Development Authority) launched a Novel Business Model and Offering initiative to promote new business models, commercial service and tools that enable scaling of climate solutions
- NYSERDA and NYCEDC (NYC Economic Development Corporation) partnered to support investment and pilot deployment with a fund of US\$ 800M over 10 years, enabling 450+ climate technologies to reach market
- NYCEDC activated 'Brooklyn Army Terminal (BAT)' in Sunset Park for climate innovation pilots allowing companies to test and scale their technologies in live environments

How have climate tech startups leveraged these policy frameworks and PPP model?

- itselectric, an electric vehicle (EV) charging company, partnered with NYCEDC and Hyundai CRADLE to demonstrate curb-side EV chargers specifically built for cities
- itselectric utilised Brooklyn Army Terminal and Brooklyn Navy Yard in 2023 to deploy 6 chargers
- its electric, thereafter, rolled out Level 2 curb-side chargers in multiple cities, funded by a US\$ 6.5M seed round (bringing total capital to about US\$ 11.8 million) to deploy in 7 cities in 2024
- Their model installs chargers in front of residential and commercial buildings at zero cost to property owners, tapping directly into spare electricity from the buildings and sharing revenue with host

What can be inferred from this case study?

New York's climate tech policy framework combines targeted policy support, financing mechanisms and testbeds to accelerate climate tech growth. Programs under NYSERDA and NYCEDC de-risk innovation through grants and insurance products and create structured pathways via testbeds such as BAT, enabling companies like itselectric to scale city-ready solutions. This aligns closely with the three reasons outlined in the introduction: accelerating technology commercialization, creating new jobs and delivering broad social and economic benefits. The results are evident as more than 1,33,000 jobs in NYC, about (3% of total jobs) have been created by green economy startups. In 2021, the green economy directly contributed about \$24 billion to NYC's GDP.

Vancouver, Canada



What policy frameworks have been implemented in New York to support the growth of climate tech ecosystem?

- Canada Growth Fund (CGF), the federal government's clean energy investment fund, committed a \$15B fund to attract private capital to the Canadian cleantech market
- Innovative Clean Energy (ICE) Fund has invested over C\$114M since 2008 to support pre-commercial clean-tech projects
- Additionally, British Columbia ICE Fund announced a 2025 Targeted Call for Clean Energy Innovation, offering \$12.3M in funding over 3 years
- Vancouver has emerged as a leading hub for green technology innovation by establishing a Green Innovation Corridor that hosts 200+ clean technology companies driving environmental solutions

How have climate tech startups leveraged these policy frameworks and PPP model?

- Svante Technologies Inc., a Vancouver based carbon capture and removals startup that capture CO₂ from industrial sources and the atmosphere received \$137 million from the Canada Growth Fund (CGF)
- Vancouver based startups such as Zinc8 Energy Solutions, Ballard Power Systems, Recycling Alternative have benefitted from the Green Innovation Corridor by developing strategic partnerships with University of British Columbia and Simon Fraser University
- Local accelerators like Foresight and New Ventures BC have offered crucial support to early-stage companies, while Innovation hubs like Sustainable Development Technology Canada have facilitated private partnerships.

What can be inferred from this case study?

Vancouver demonstrates how layered policy frameworks: federal, provincial, and municipal create a fertile ground for climate tech commercialization. Instruments like CGF, ICE Fund have de-risked technologies at early stages and shown companies the pathway from lab to market. This approach directly supports one of the reasons highlighted in the introduction: accelerating technology commercialization for rapid climate action. Equally, Vancouver's Green Innovation Corridor, which hosts over 200 clean technology companies, along with accelerators like Foresight and New Ventures BC, has fuelled job creation and industry-university collaborations. By 2022, companies in the Corridor had collectively raised over US\$2.3B in investment, highlighting the reasons to support climate tech startups.

Stockholm, Sweden

By 2030

reduce emissions from energy use and transport by **80%**, halve consumption-based emissions

By 2040

become fully fossil-free

What policy frameworks have been implemented in New York to support the growth of climate tech ecosystem?

- In 2023, Sweden's climate financing amounted to 9.4 billion SEK, an increase of over 800 million SEK compared to 2022
- As per Stockholm Climate Action Plan 2030, when a climate-related project needs a large investment and isn't yet profitable, councils and boards must look for funding from the EU or Swedish funding agencies such as Swedish Energy Agency, Swedish Agency for Regional and Economic Growth, Swedish Environmental Protection Agency
- Stockholm has created local testbeds (Climate Transition Arenas, pilot zones) and has formalised partnerships with universities and research institutions to accelerate innovation testing and knowledge transfer
- As per Stockholm Climate Action Plan 2030, municipal energy players such as Stockholm Exergi have been mandated to run pilots offering demonstration sites for startups

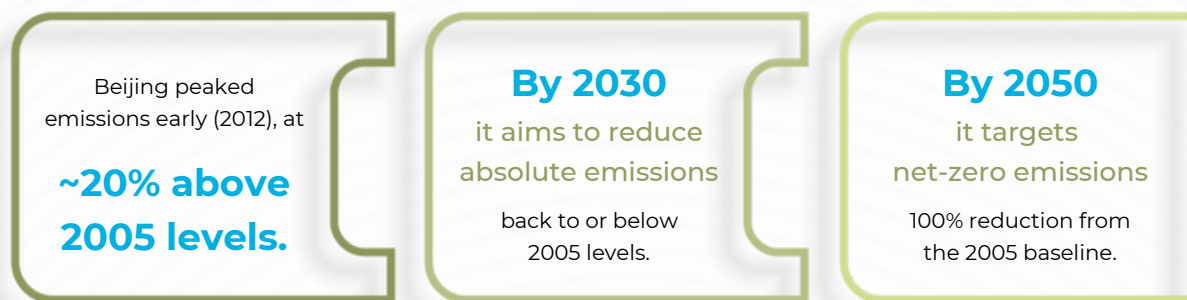
How have climate tech startups leveraged these policy frameworks and PPP model?

- In collaboration with Stockholm Exergi, Sigholm, a Stockholm based startup is developing an optimization platform (Aurora) that links together heat, electricity and cooling production with broader system components such as carbon capture, balancing power on the grid, fuel planning.

What can be inferred from this case study?

Stockholm Climate Action Plan 2030 mandates councils to leverage EU and national funds while utilities like Stockholm Exergi provide demonstration sites, enabling startups such as Sigholm to pilot integrated energy platforms. This ecosystem is already yielding results: green jobs now account for 32.2% of total employment in Stockholm. At the same time, Stockholm is advancing large-scale pilots like bioenergy with carbon capture (BECCS), which could cut emissions by 800,000 tons annually while supplying district heating to hundreds of thousands of residents. These outcomes reflect the three reasons outlined in the introduction: rapid commercialization, job creation and broad social value and show how structured financing, testbeds and partnerships can embed climate innovation at the heart of urban growth.

Beijing, China



What policy frameworks have been implemented in New York to support the growth of climate tech ecosystem?

- Establishment of 'Energy Valley' in Future Science City in Beijing to provide a sound environment for innovation
- Energy Valley operates a 'Carbon-Digital Industrial Accelerator', a city-level clean-energy incubator and accelerator, jointly built by CarbonForce (Beijing) Technology Co., Ltd. and Beijing Future Science City Industrial Development Co., Ltd
- In 2022, China attracted US\$ 546B in global energy transition investments, accounting for nearly ½ of the global total.
- World Intellectual Property Organization (WIPO), Beijing Intellectual Property Office and Blue-Tech Clean Air Alliance launched a 'IP Management Clinic (IPMC) Program' to support Chinese green tech companies which led to increased patent filings and strengthened market positioning

How have climate tech startups leveraged these policy frameworks and PPP model?

- The investments resulted in 2,273 new enterprises' registrations with 1,50,000+ green patent applications filed particularly in solar energy, battery, and electric vehicle technologies
- IPMC supported 25+ enterprises by providing strategic IP roadmaps, guidance on patent filing (both in China and other countries)

What can be inferred from this case study?

Beijing's climate tech ecosystem highlights how innovation hubs, large-scale public financing and strong IP protection mechanisms can accelerate startup creation. Startups leverage these frameworks to register new enterprises, file patents at scale and secure international market positions. China granted 53,000+ green and low-carbon invention patents. In early 2025 alone Beijing saw the establishment of 669 new green enterprises, raising its green enterprise rate to 28.5%. Beijing hosts 161 national green factories and 30 green supply chain enterprises, underscoring its role in job creation and industrial transformation. These outcomes directly reflect the 3 reasons outlined in the introduction and offer lessons for Indian states on embedding climate innovation within industrial and economic growth strategies.

Conclusion

To truly unlock the potential of climate tech in India, it is essential to move from proof-of-concept to proof-of-practice. The global case studies presented in the previous section show that this transition is made possible when governments provide targeted policy support, de-risking mechanisms and structured pathways for innovation to scale. Each parameter reflects a common success factor observed across practices of New York, Vancouver, Stockholm and Beijing; whether it is use of innovation hubs, creation of dedicated testbeds, design of insurance and de-risking mechanisms or establishment of structured funding pathways. To systematise these insights, following checklist serves as a practical tool for mapping readiness of global case studies as well as guiding ecosystem development across Indian states. While not exhaustive, these parameters offer a practical foundation that Indian states can adapt to their own contexts when assessing ecosystem readiness and shaping supportive interventions.

S No.	Parameters	New York	Vancouver	Stockholm	Beijing
1	Set net-zero targets and interim goals	Present	Present	Present	Present
2	Strategies/frameworks supporting climate tech startups in Climate Action Plans			Present	
3	Support/provide risk insurance	Present			
4	Establish innovation hubs			Present	Present
5	Presence of a feedback mechanism				
6	Provide area/zones for piloting/testing	Present		Present	Present
7	Access to public/private funding	Present	Present	Present	Present
8	Maintain open-access data repositories				
9	Conduct regular training programs				Present
10	Organise climate hackathons/challenges				Present
11	Partnerships/collaboration	Present	Present	Present	Present
12	Fast-tracking processes				Present
13	Develop annual climate tech readiness reports			Present	

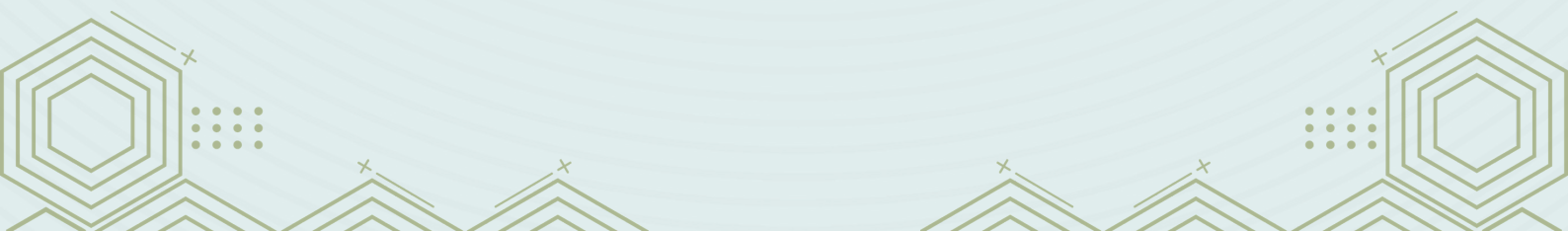
Recognising how important these parameters are in the policy frameworks of advanced economies, Indian states must start viewing climate tech startups as valuable contributors to their State GDPs and support their growth.

In line with this, Climate Collective Foundation (CCF), which runs the largest climate tech startup support platform in India, is developing a Climate Tech Startup Ecosystem (CTSE) Readiness Framework alongside a **State Climate Innovation Ecosystem Analytics Portal**. This framework will assess how ready each state's ecosystem is, across 6 curated verticals namely:

- **Access to Capital:** Availability and proportion of public and private financing, grants, venture capital and blended finance for climate tech startups
- **Access to Market:** Access to public procurement, pilot opportunities, industry linkages and demand-side enablers
- **Talent Availability:** Assess workforce readiness, skilling institutions, research talent, and entrepreneurial capacity
- **Innovation Capacity:** Assess R&D infrastructure, incubators and accelerators, testing facilities and technology readiness
- **Policy Environment:** Existence of startup policies, climate policies, regulatory support, incentives and ease of doing business
- **Impact Assessment:** Mechanisms to measure climate impact generated by climate tech startups

Each vertical is further divided into 30 indicators and 68 data points. This framework will help assess the position of different Indian states and identify the areas where they can act as enablers for the growth and success of climate tech startups.

Together, the CTSE Readiness Framework and the State Climate Innovation Ecosystem Analytics Portal are intended to serve as practical decision-support tools for state governments, enabling evidence-based policymaking and targeted interventions to strengthen climate-tech ecosystems. By systematically identifying gaps, opportunities, and best practices across states, this initiative aims to support more consistent, proactive, and outcome-oriented engagement with climate tech startups. Over time, such an approach can help Indian states not only accelerate innovation and entrepreneurship, but also align climate action with economic development objectives, positioning climate tech as a strategic driver of resilient and inclusive growth.



Bibliography

- > ORF. (2025). Deep tech, shallow support: Why India's climate-tech startups struggle.
- > PwC. (2024). State of Climate Tech 2024: Seeking an edge as deal-making slows. Retrieved from <https://www.pwc.com/gx/en/issues/esg/climate-tech-investment-adaptation-ai.html>
- > ORF. (2024). Financial and policy catalysts for climate tech expansion in India: Insights from the 'Green Innovation and Investment Dialogue'.
- > Governor Kathy Hochul. (2023). Governor Hochul announces \$6.5 million to support new insurance policies and products for climate technology solutions. Retrieved from <https://www.governor.ny.gov/news/governor-hochul-announces-65-million-support-new-insurance-policies-and-products-climate-0>
- > NYSERDA. (2023). Collaboration announced to advance climate technology innovation. Retrieved from <https://www.nyserda.ny.gov/About/Newsroom/2023-Announcements/2023-09-21-NYSERDA-and-NYCEDC-Announce-Agreement-On-Advancing-Climate-Technology-Innovation>
- > NYCEDC. (2024). NYCEDC Green Economy Action Plan. Retrieved from <https://edc.nyc/sites/default/files/2024-02/NYCEDC-Green-Economy-Action-Plan-02-28-24.pdf>
- > Riehl, A. (2025). Canada Growth Fund commits up to \$50 million to Longbow Capital's second Energy Transition Fund. BetaKit. Retrieved from <https://betakit.com/canada-growth-fund-commits-up-to-50-million-to-longbow-capitals-second-energy-transition-fund/>
- > BC Bioenergy Network. (2025). ICE Fund targeted call for clean energy innovation. Retrieved from <https://bcbioenergy.ca/news/ice-fund-targeted-call-for-clean-energy-innovation/>
- > City of Stockholm. (2024). Climate Action Plan 2030: A just transition for a Stockholm with no global carbon footprint. Retrieved from <https://start.stockholm/globalassets/start/om-stockholms-stad/politik-och-demokrati/styrdokument/climate-action-plan-2030.pdf>
- > Sigholm. (2023). Next generation system optimisation, Stockholm Exergi. Retrieved from <https://www.sigholm.se/en/articles/systemoptimering-stockholm-exergi>
- > OECD. (2025). Stockholm - a winning start in the green transition. Retrieved from https://www.oecd.org/en/publications/providing-local-actors-with-case-studies-evidence-and-solutions-places_eb108047-en/stockholm-a-winning-start-in-the-green-transition_ddb640a9-en.html
- > Beijing Municipal Bureau of Economy and Information Technology. (2025). Beijing has added thirty-one national green factories.



CLIMATE COLLECTIVE



Interested in collaborating with Climate Collective Foundation?

Please reach out to us at: research@climatecollective.net