U of T INDIA FOUNDATION

PROGRESS REPORT

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The UofT India Foundation (UTIF) bridges India's climate challenges with the University of Toronto's global research & innovation network. UTIF fuels research and entrepreneurial solutions to strengthen India's climate resilience, shape sustainable urban infrastructure and drive data-driven sustainability to build inclusive and equitable Indian cities of all sizes.

Fostered growth across

82+ Startups

Research and entrepreneurship projects supported by UTIF to drive sustainable solutions

56+

www.uoftindiafoundation.com

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Bridging India's Climate Challenges with Global Research & Innovation.

Introduction

The UofT India Foundation (UTIF) Progress Report captures the progress, partnerships, and impact achieved over the Foundation's 2 years of operation. The report weaves together stories spanning across India — from students mapping waste systems in Pune, to startups testing climate-tech solutions in Kerala, and from researchers co-designing tools for inclusive urban planning, to community leaders shaping climate resilience from the ground up.

Through project highlights, and projected outcomes, the report illustrates how UTIF is bridging academia, governments, civil society and industry to co-create solutions for climate resilient and equitable Indian cities. The report also outlines the Foundation's forward-looking vision and its approach towards scaling innovation. It also summarizes the Foundation's efforts in strengthening community-led action, that further supports in nurturing the next generation of changemakers.

About Us

The UofT India Foundation (UTIF), established in 2023 with the support of the Tata Trusts, serves as the University of Toronto's (U of T) Research and Entrepreneurship centre in Mumbai—dedicated to co-creating solutions to climate challenges that benefit Indian society. Through research, innovation, and partnerships, the Foundation brings together Canadian and Indian expertise to advance climate resilience, sustainable urban infrastructure, and data-driven sustainability across Indian cities of all sizes.

UTIF connects Indian policymakers and grassroots organizations with world-class researchers to co-design locally relevant, data-informed solutions — from climate-tech innovation and heat action planning to sustainable infrastructure systems. Drawing on U of Ts global network and interdisciplinary urban expertise, the Foundation champions adaptive, cross-sectoral approaches to building climate-smart, inclusive cities.

The Foundation exemplifies the University's commitment to impactful global engagement, leveraging research, technology, and collaboration to drive India's transition toward a more sustainable urban future.

Our Mission

UTIF cultivates partnerships between U of T and India, bringing together research, innovation, and impact. Rooted in collaboration, we work alongside Indian partners to co-create solutions that strengthen infrastructure and build community resilience. Working together with our partners, we seek high-impact solutions to build more sustainable Indian cities of all sizes.

Our Vision

Connecting Indian and the U of T talent to drive sustainable, inclusive futures across India.

Since its inception in 2023, the UofT India Foundation (UTIF) has strengthened its presence in India through sustained engagement with local government bodies, civil societies and academic partners. The Foundation's work focuses on how Indian cities are responding to rapid urbanization, climate pressures and equity imperatives, while creating opportunities for interdisciplinary learning.

UTIF creates spaces where practitioners, policymakers, researchers, scholars, and innovators can collaborate on driving data backed solutions that support climate-responsive development for Indian cities of all sizes.

*UTIF bridges the **University of Toronto's (U of T) expertise with India's own global leadership**, connecting Indian stakeholders with distinguished international urban experts to bring global perspectives into local action.*

What makes UofT India Foundation unique?

A Convenor

to bring the best minds across sectors to advance sustainable Indian cities and foster public engagement.

A Champion

of interdisciplinary and global approaches, leveraging U of T's expertise and partnerships to India's urban context.

A Broker

to international problem-solving, bridging Indian stakeholders and global experts to co-create data-driven urban solutions.

UofT India Foundation's Focus Areas

Climate Resilience

From rising heat to shrinking water resources, Indian cities are confronting the realities of changing climate. UofT India Foundation (UTIF) works with Indian partners and global experts to co-conceptualize approaches that shift climate action from short-term solutions to long-term resilience rooted in evidence, collaboration, and strengthened local capacity.

Sustainable Urban Infrastructure

As cities across India rapidly urbanize, UTIF convenes innovators, researchers, and civil society partners to examine the practical, political, and financial dynamics shaping mobility, housing, water, and public space. Our initiatives focus on strengthening the institutional and governance structures necessary to seed sustainable infrastructure in real urban environments, not as isolated pilots but as systems capable of evolving and enduring over time.

Data-Driven Sustainability

Urban systems increasingly rely on ethical, inclusive data to shape planning and public accountability. UTIF supports applied research, capacity-building, and training that help practitioners, students, and community organisations apply data and emerging AI tools meaningfully to support evidence-based urban decision-making.

About The University of Toronto

The University of Toronto (U of T) is consistently ranked among the world's top universities, and is Canada's leading institution of learning, discovery, and innovation. U of T, founded in 1827, is renowned for its groundbreaking research, academic excellence, and global impact.

U of T has long-standing, multi-faceted engagement with India, which includes research partnerships, engagement with Indian industry, and a strong Indian student and alumni base. With over 2,200 Indian students, a diverse network of alumni across India, and nearly 1,000 research co-publications with Indian institutions in the last five years, U of T continues to strengthen its ties with India across education, research, and innovation.

The UofT India Foundation (UTIF) collaborates with U of T's Office of the Vice-President International and School of Cities, University of Toronto, as well as globally-engaged researchers and thought-leaders from across the University in developing and undertaking many of its initiatives with Indian partners.

From the VP's Desk

Prof. Joseph Wong

Vice-President, International,
University of Toronto

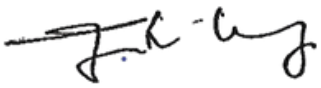
It is with pride and optimism that I present this review of the UofT India Foundation's (UTIF) impact over its first two years. Launched in 2023 with the generous support of the Tata Trusts, UTIF reflects the University of Toronto's (U of T) deep and enduring commitment to partnership with India, built on decades of academic exchange, innovation, and shared purpose. It is more than a bridge; it is a living platform for collaboration across geographies, disciplines, and sectors.

India is home to some of the world's most dynamic urban centers that are rich in history, culture, and innovation. But like cities everywhere, they are also on the frontlines of global challenges like climate adaptation, sustainable growth, critical infrastructure development in areas such as water and sanitation, and supporting vulnerable populations. UTIF is designed to catalyze action at these intersection.

In our first 2 years, the Foundation has built trusted partnerships that have led to the development of impactful projects in both our research and entrepreneurship spheres of engagement. The Research Catalyst Grant program offers academic and civil society partners from U of T and India to collaborate on sustainable urban solutions, while the Techtonic Program lays the platform for an Indian startup ecosystem that is innovative, sustainability focused, multidisciplinary, and future-forward. Our efforts are guided by the spirit of co-creation, pursuing India-led priorities, jointly designed solutions, and shared outcomes with our exceptional partners across government, civil society, the private sector, and academia.

As we reflect on our first chapter, we are energized by what lies ahead. UTIF is a platform for global impact and will continue to be a space where Indian and Canadian talent converge to support innovations and design solutions that matter, where building sustainable Indian cities is not just a goal, but a shared process.

Thank you for being a part of this journey.



2023–2025: In Review

Since its establishment in 2023, the UofT India Foundation's Entrepreneurship Vertical has fostered innovation by supporting startups in the sustainability sector for student-led climate tech ventures in partnership with leading academic institutions in India. The Research & Education Vertical strengthened collaborations between Indian partners and the University of Toronto (U of T) scholars, advancing sustainable cities research and building capacity through workshops, public lectures, and academic exchange. Together, these efforts are paving the way for scalable climate solutions and more resilient, sustainable Indian cities.

19
Research Projects

21
Workshops & Conferences

5
Entrepreneurship Challenges Hosted

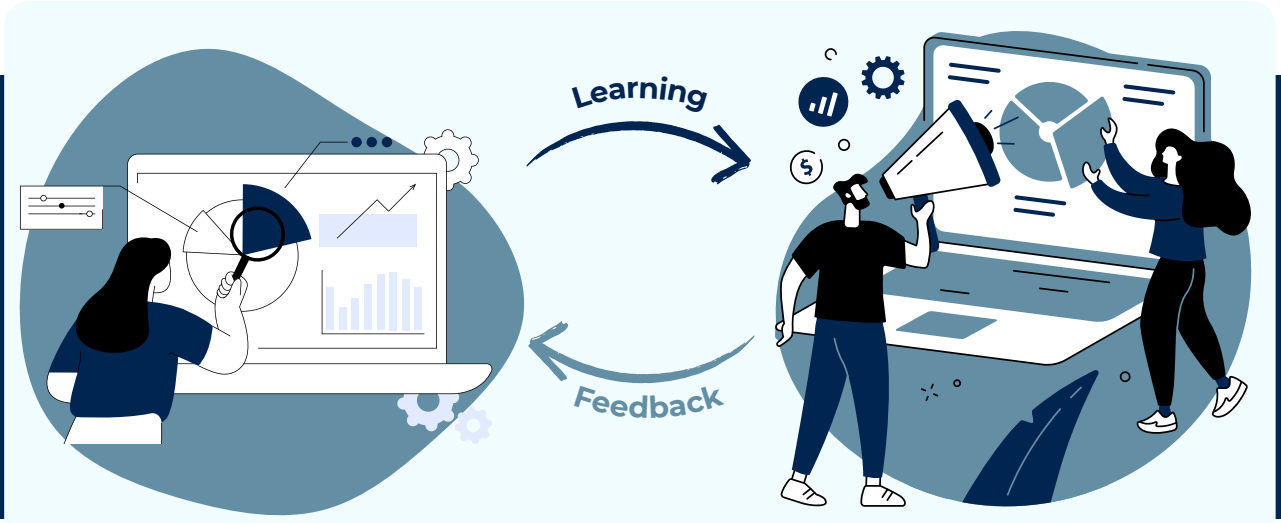
82
Startups Supported

15
Research Resources Published

*All the above initiatives are based in India

Research-Entrepreneurship Synergy

Sustainable urban development is data-driven, and this is where the UofT India Foundation's (UTIF) pillars—Research and Entrepreneurship—converge to drive meaningful change. Addressing complex urban challenges like mobility, waste management, water, and housing requires a deep, context-specific understanding. Research plays a crucial role by gathering data, analyzing trends, and generating evidence-based insights that reveal gaps, inefficiencies, and opportunities within urban systems.



UTIF's integrated approach combines research and entrepreneurship to drive evidence-based, innovative, and scalable solutions for sustainable urban development

However, knowledge alone is not enough. Entrepreneurs act as catalysts, transforming research findings into viable, scalable solutions such as climate-resilient materials, data-driven mobility products, or circular economy platforms. Their agility enables rapid experimentation and customization, often lacking in traditional institutions. This relationship is reciprocal: startups generate practical knowledge through real-world engagement, feeding back into research and inspiring new insights. Together, research and entrepreneurship create a dynamic, evolving ecosystem that ensures urban development is both evidence-based and action-driven.

Pilot Deployment Under Techtonic Program - Launch of the E-Carts Deployed by Accelero Vehicles in Thiruvananthapuram.

Prof. Andrea Duncan

Assistant Professor, Teaching Stream
Department of Occupational Science & Occupational Therapy
Temerty Faculty of Medicine, University of Toronto

Building inclusive options for children with disabilities is an integral part of building sustainable, resilient cities. It's not just about adding a ramp or designing a device; it's about embedding accessibility into every stage of research, design, and urban planning. What remains at the core is the understanding that research and entrepreneurship are not separate paths, rather they are part of the same journey.

Working closely with Amar Seva Sangham (ASSA), we travelled across Tamil Nadu, Kerala, and Maharashtra, engaging with parents, grassroots organizations, therapists, and caregivers, gathering insights into the everyday challenges faced by children with disabilities and their families. These community-driven perspectives grounded our research in the realities of local contexts and needs. Mahatma Gandhi Mission University (MGM University) in Aurangabad hosted in-depth discussions that opened doors to future research and educational collaborations in rehabilitation and nursing.

The UofT India Foundation has been an essential partner in bringing these voices together and supporting a research process; actively fostering the bridge between knowledge and implementation. In a country like India, where many innovations fail to scale due to disconnects between user realities and product design, such initiatives are helping close that gap.

While our immediate focus has been on creating a prototype for a low-cost, locally relevant pediatric walker, the broader lesson is clear: meaningful change is built on the strength of partnerships and the willingness to learn from communities.

Prof. James D. Slotta

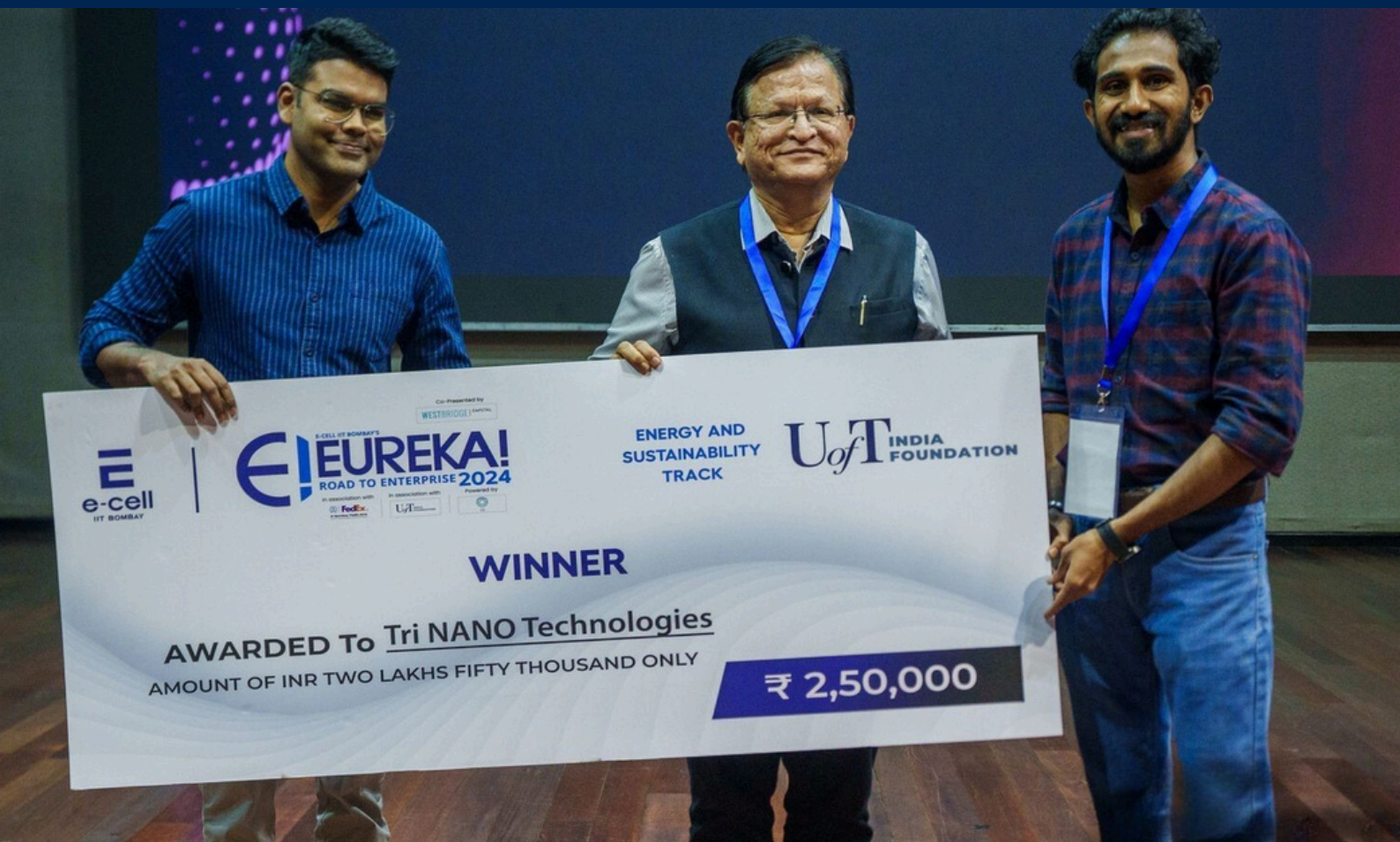
Professor, Department of Curriculum, Teaching and Learning, Ontario Institute for Studies in Education, University of Toronto

What happens when students are given the tools to explore and take action towards the future of our cities?

When we move beyond traditional instruction to embrace pedagogical approaches mainly, critical decision making, storytelling, community engagement and arts-based learning; can classrooms empower students to engage with real-world challenges like food security, pollution, and climate change, enabling them to become the change-makers of tomorrow.
Working together with the UofT India Foundation and our implementation partner, Charans' Public School in Bengaluru to pilot the Critical Action Learning Exchange (CALE) curriculum focused on climate action and resilience, we designed the Critical Action Learning Lab, a 10x20m makerspace that fosters open, flexible and practical learning. Our interaction with the teachers has been instrumental. Their openness to continuous learning and willingness to experiment with progressive teaching strategies have enriched the project; allowing them to design curricula that encourage students put on their critical thinking hats to map urban migration patterns, narrate stories of climate resilience, and even develop small-scale interventions for waste management.

The journey has not been without challenges. Shifting from traditional classroom norms to more collaborative, inquiry-based learning required patience and persistence. Yet, our shared commitment to creating a hands-on, engaging learning experience has remained steadfast. Such a collaboration where we discover how classrooms can transform into spaces of action, where research meets community insight, and education becomes a bridge to real-world impact is crucial for sustainable cities.

Empowering innovators to build sustainable solutions for a growing India.



Research and Education

UofT India Foundation (UTIF) supports research initiatives that advance sustainable urban and peri-urban development in India, connecting University of Toronto (U of T) researchers with Indian partners comprising local governments, non-profit organizations, research centers, and academic institutions. Our work includes capacity-building workshops, conferences, research grants, and community-based projects.

Research Initiatives

Research Grants

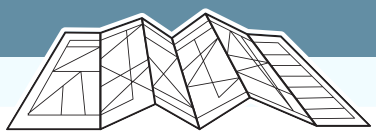
UTIF provides funding for collaborative research between U of T and Indian partners **to advance sustainable, resilient cities,** working closely with the multidisciplinary School of Cities, University of Toronto to drive impactful urban solutions.

Student-Led Projects

The International Multidisciplinary Urban Capstone Program (IMUCP) places students from U of T and Ashoka University with community partners in India, to **co-create data backed outputs for addressing real-world challenges**, giving students hands-on experience while addressing community needs.

Conferences & Roundtables

We foster and sustain research-driven dialogue between Indian changemakers that will lead to more sustainable Indian cities and city-regions.



Capacity Building

We facilitate workshops to supplement knowledge within Indian ecosystem by bridging U of T tech expertise, to equip Indian changemakers with the **skills and knowledge needed to build more sustainable cities.**

KNOWLEDGE SHARING

Research Posters, Resource Guides, and Reports to enable data-driven insights for resilience and sustainability.

The Research Catalyst Grant

The Research Catalyst Grants is a collaborative funding initiative of the UofT India Foundation (UTIF) and the School of Cities, University of Toronto. It is designed to support joint research between the University of Toronto (U of T) and partner institutions in India. The grant focuses on advancing sustainability and climate resilience in Indian cities and city-regions, spanning small towns to large metropolitan areas. It supports work on issues such as air quality, water and sanitation, urban infrastructure, mobility, housing, energy, sustainable livelihoods, data-driven sustainability, and waste. Its purpose is to enable high-impact, evidence-generating research and to strengthen partnerships across academic, research, non-profit, and government organizations, fostering co-created insights and solutions for more sustainable urban futures.

Research Catalyst Grants 2024-2025

The Research Catalyst Grants 2024-25 supported five co-developed research projects led by the U of T faculty in partnership with Indian organizations. These projects spanned key sectors including *Climate Action Education, Inclusion and Livability, Sustainable Agriculture, Urban Placemaking, and Water Management*. From establishing a Critical Action Learning Lab and studying seed conservation to analyzing Puri's water supply, developing a new prototype for pediatric walkers, and revitalizing urban landscapes, the five Catalyst Grantees represent a diverse portfolio aimed at addressing complex urban challenges.

Prof. Andrea Duncan, a Research Catalyst Grantee, during her fieldwork on pediatric walkers in Tamil Nadu.

Priya Rajanayanan from Seed Island exchanging seeds during Prof. Jayeeta Sharma's Sustainable Agriculture workshop in Kerala. Dr. Sharma is a Research Catalyst Grantee.

Research Catalyst Grants 2025-2026

Out of 22 applications received across diverse themes, five projects were awarded the Research Catalyst Grant 2025-26. These projects focus on addressing critical issues related to health, sustainability, leveraging AI capabilities for economic sustainability and the intersection of environmental and socio-economic factors, reflecting a multidisciplinary approach to solving complex urban challenges.

Effectiveness of Dexamethasone for Patients Hospitalized with Dengue

The Urban Sustainability Issue - Urban Flooding in Guwahati

Integrating Informal Waste Workers into Sustainable Urban Economies

Empowering Kolkata's Idol-Makers Through Generative AI

Assessing the Impact of Green & Blue Spaces on Urban Heat Islands for Evidence-Based Urban Policy & Planning in India

Everyone needs nutrient-rich food. While anyone can choose to become a doctor, lawyer, or engineer, every household must have a farmer. I urge everyone to embrace farming. Seeds belong to farmers and not corporations and should remain in the hands of farmers and women. We as a group promote urban gardening and believe in growing what we eat. Every household must conserve heirloom seeds and pass them on to future generations. Seeds are vital for our survival, and we must protect our earth, nature, and soil. I would like to thank UofT India Foundation for organising this workshop and giving us a platform to raise awareness and to make our voices heard.

Priya Rajnarayanan
Seed Island

International Multidisciplinary Urban Capstone Program (IMUCP)

What happens when young minds from Canada and India collaborate with communities rooted in Indian cities? The International Multidisciplinary Urban Capstone Program (IMUCP) brings the University of Toronto (U of T) and Ashoka University students together with local partners for developing outputs that aim to address their challenges. It provides students with hands-on experience applying their academic learning to social issues, while offering local partners much-needed research, design, or communication support they may not have the resources to pursue.

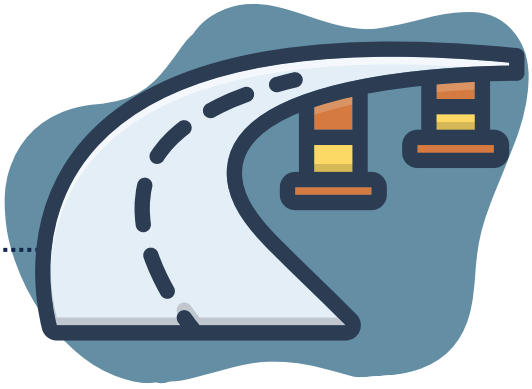
IMUCP

The eight-month research program on community projects in India facilitates cross-geographical insights and long-term connections, with students developing online toolkits and resource guides following fieldwork, discussions and interim presentations.

SWaCH and RannNITI were our community and field partners for IMUCP 2024–25, working closely with the student groups on their projects. The students also received guidance from Center for Development Studies and Activities (CDSA) and YUTAK LGBTQ+ charitable group as Pune-based subject matter- and community experts. For 2025-26, Youth for Unity and Voluntary Action (YUVA) and Raah Foundation — Mumbai based organizations focused on housing, mobility, and urban equity, joined to co-define problems and guided research with community insight. IMUCP 2024-25 featured three community-focused projects:

SWaCH Model Guidebook (print and e-version]: Students partnered with SWaCH to develop a guidebook detailing ethnography of waste-pickers in the solid waste management system developed by waste-pickers. The online resource developed by students will be used by SWaCH for further advocacy to fundraise for the communities and to develop models for scaling to other geographies.

Repurposing unutilized spaces under flyovers: Students identify innovative urban interventions that add value to unutilized spaces under flyovers. The proposed framework addresses global case studies, the challenges of upkeep of spaces once repurposed and the need for continued community engagement. The online resource developed by the students will be used by community partners and by UTIF for further policy advocacy.



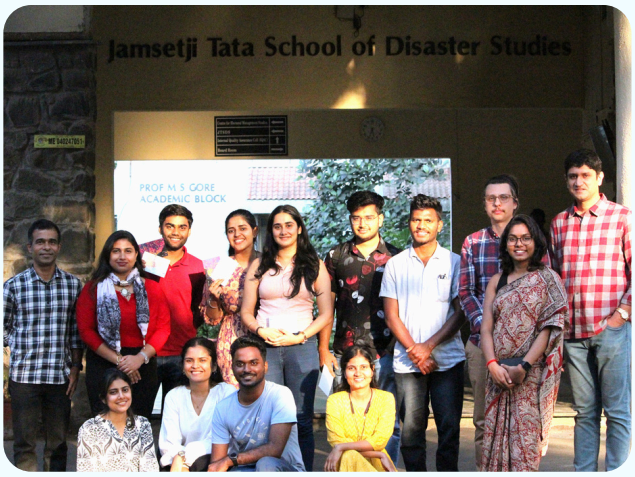
Resource guide for transgender communities: Students developed a Resource Guide Toolkit for transgender communities to facilitate access to information and awareness of resources available in India for transgender communities. The online tool can be accessed by communities and advocates in Pune as a one-stop guide to available government resources and civil society support for trans communities.

Capacity Building Workshops

We facilitate workshops and capacity-building initiatives for Indian changemakers, focusing on enhancing the skills, knowledge, and competencies that are most needed to build more sustainable Indian cities. Sessions are led by leading experts from the University of Toronto (U of T), and audiences include our partners such as Tata Institute of Social Sciences (TISS), People's Science Institute (PSI), National Institute of Advanced Sciences (NIAS), DASRA and other community organisations and urban local bodies.

Capacity Building Initiatives

- Urban Mixed Methods Workshop
- Data-driven story-telling workshop
- Urban Data visualization workshop
- Qualitative Research Workshop for Urban Justice
- Development & Climate Vulnerability Assessment Nexus Workshop
- School of Cities India Academic Lectures (SOCIAL) Speaker Series



Students from the Tata Institute of Social Sciences, Mumbai, engaged in the Urban Data Visualization Workshop.

Dr. Jeff Allen from School of Cities, University of Toronto conducting the Urban Data Visualization Workshop at TISS Mumbai.

A session on Creative Techniques for Visual Representation by Prof. Karan Singh, Associate Director, School of Cities India, University of Toronto.

Participants at the Climate Vulnerability Assessment Workshop led by Prof. Nidhi Subramanyam at DASRA, Mumbai.

Conferences and Roundtables

UofT India Foundation (UTIF) creates vital spaces for research-driven dialogue and collaboration among scholars, practitioners, and policymakers. **AI and the City Conference and the Climate Resilient Urban Sustainable Habitats (CRUSH) Roundtable** served as key platform for Indian changemakers to exchange ideas, showcase innovations and build collaborations that inform real-world urban solutions. By bringing diverse perspectives and expertise, such engagements strengthen evidence-based policymaking and shape inclusive, data-informed pathways toward more resilient and sustainable Indian cities and city-regions.

AI and the City Conference

The AI and the City Conference, held in January 2025 and co-hosted by the School of Cities India, University of Toronto; International Institute of Information Technology, Bangalore (IIIT B) and UTIF, convened **researchers from 18 institutions across 12 countries** to examine AI's role in shaping future cities. Professor Simon Marvin's keynote on the "technicization of everything" and "cybersymbiosis" framed discussions on how AI is redefining urban systems, governance, and equity. The conference explored both the promise of AI for urban efficiency and the ethical and social challenges it presents.

Participants convened at the AI and the City Conference in Bengaluru, January 2025, to explore AI's role in urban environments.

Building on its growing portfolio of research convenings, UTIF will host the **Cities of Care Conference in partnership with IIT Madras and School of Cities, University of Toronto on January 30-31, 2026**, examining how the water-food-waste nexus shapes urban resilience, equity, and sustainability. Bringing together researchers, practitioners, and policymakers, it aims to bridge disciplines and generate actionable insights for just and regenerative urban futures.

Catalyzing research through collaborative partnerships.

Climate Resilient Urban Sustainable Habitats (CRUSH) Roundtable

The CRUSH Roundtable was conducted in Delhi on July 5, 2024, in collaboration with the School of Cities, University of Toronto and the Department of Electrical Engineering, Indian Institute of Technology-Delhi (IIT-D), with support from Tata Trusts. It brought together a transdisciplinary group of researchers, urban planners, civil society leaders, and government representatives to address the urgent need for climate-resilient urban habitats in India. The workshop opened with a keynote by Prof. Debolina Kundu, National Institute of Urban Affairs (NIUA), who emphasized the importance of environment-centered urban planning and showcased national initiatives such as the Climate Smart Cities Assessment Framework and urban river management strategies. The discussions highlighted the rapid pace of urbanization in India, the vulnerabilities of peri-urban and ecologically sensitive regions, and the necessity of integrated planning, community engagement, and proactive resilience-building to safeguard both people and ecosystems.

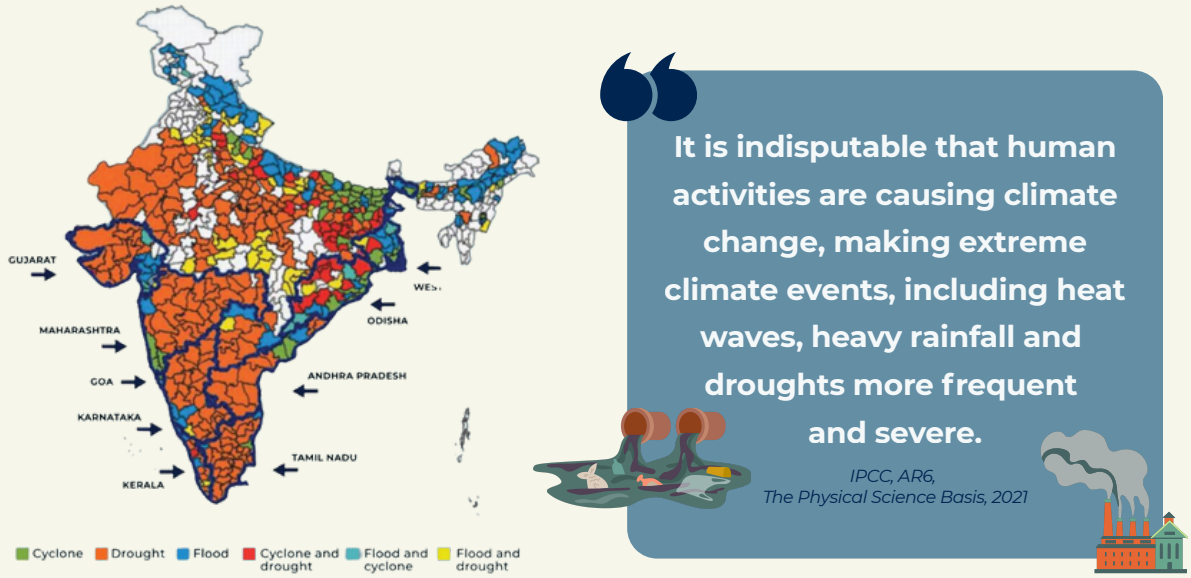


Image Source: Mapping India's Climate Vulnerability, CEEW 2021

The roundtable featured region-specific perspectives, including challenges in the Himalayan hill regions, coastal areas, and arid zones. Presenters shared practical solutions such as early warning systems for landslides, participatory groundwater management, and the use of sustainable construction materials. Case studies from organizations like the People's Science Institute, Development Alternatives, and the Aga Khan Agency for Habitat illustrated the value of community-led interventions, nature-based solutions, and capacity building for local urban bodies. The workshop underscored the need for collaboration between academia, government, and civil society to develop scalable, data-driven, and context-sensitive approaches for building climate-resilient urban futures across India.

U of T professors Prof. Karen Chapple and Prof. Mark S. Fox delivering a panel on Sustainable Urban Transitions in India, alongside Mr. Jagan Shah and Mr. Manoj Kumar.

Britto Shibi

Co-Founder & CTO at Airvue
MedCuore Medical Solutions Private Limited

Indoor air quality is often invisible, yet it profoundly affects the health and well-being of millions who spend hours inside hospitals, airports, and other public spaces. At MedCuore, we're addressing this challenge head-on. Our smart indoor air quality monitoring, purification systems & organic fragrances solutions under the brand Airvue, we're working to create cleaner, safer indoor environments that protect people and support sustainability.

Just like any other early-stage startup, our challenge- a great product but with limited visibility, credibility gaps, and lack of access to the right networks, made it difficult to scale or secure pilot deployments.

The Techtonic Program by the UofT India Foundation in collaboration with Social Alpha was a game changer for us. The mentorship and feedback sharpened our pitch, while the networking helped us connect with industry leaders. Being selected as one of the top 10 urban innovations really boosted our confidence and transformed us as a solution provider rather than a product company. We started communicating efficiently on how our technology fits into broader health and sustainability goals. We connected with key stakeholders and also initiated pilot deployment discussions with Bangalore Airport and Apollo Hospitals.

The experience helped us see the bigger picture. We're now more confident about scaling nationally and taking our AI-powered air quality solutions globally. We're securing global certifications like RESET, a prominent body in the Indoor Air Quality segment to penetrate the IT, ITes & Green Buildings.

What makes a collaboration like this so valuable is that it meets startups at a crucial inflection point, when ideas are ready to be tested. It brings together academic insight, sector expertise, and global perspectives in a way that is rare and incredibly effective. They help entrepreneurs see the bigger picture, build credibility, and navigate toward sustainable growth. With continued nurturing, programs like this can help build the next wave of climate and health-tech innovators.

Entrepreneurship

Our entrepreneurship programs foster innovations and create impactful solutions for India's evolving challenges in sustainability, climate resilience, and urban development. We believe the key to building a long-term pipeline of impactful ventures lies in identifying transformative ideas early and supporting them through our network of mentors and investors to help realize their vision.

Team UTIF on the judging panel for the Energy & Sustainability track at the IIT Bombay E-Cell Eureka! Business Plan Competition.

The UofT India Foundation's (UTIF) Entrepreneurship Vertical has supported 82 early-stage innovations and funded 37+ startups across climate-tech and allied sectors. Through university collaborations and strategic partnerships, it has strengthened India's innovation ecosystem and accelerated the growth of high-impact, sustainability-driven ventures.

Our approach to Entrepreneurship:

Innovate

We collaborate with partners to support Indian students and early stage innovators through ideation, mentorship, funding, and resources that drive sustainable innovation.

Incubate

We help startups accelerate growth through grants, mentorship, and networks—empowering them to pilot innovations and scale impactful, sustainable urban solutions.

Innovate

UofT India Foundation (UTIF) supports early-stage, climate-tech innovations by students and university-based startups, fostering the development of original ideas. It focuses on ideation, mentorship, and early stage funding, building a strong foundation for scalable urban sustainability solutions.

This year, UTIF launched three new initiatives under its Innovate Program.

1. UTIF - IIT Bombay E-cell: Eureka! Business Plan Competition: Launched in 2024–25, UTIF's partnership with IIT Bombay's E-Cell supports the Eureka! Business Plan Competition's Energy & Sustainability track. Each year, the program receives over 300 applications, from which 10 promising startups are mentored and one is awarded a seed grant. In the first year of the partnership, TriNANO Technologies won ₹3 lakh to advance its nanotech coating for solar panels—reinforcing UTIF's sustained commitment to climate-tech entrepreneurship.

2. UTIF - IIT Madras – School of Sustainability for Carbon Zero Challenge: Supported by UTIF, the Carbon Zero Challenge at IIT Madras' School of Sustainability fosters early-stage climate-tech innovation. In 2024–25, UTIF committed ₹40 lakh to mentor 25 startups, fund 5 with prototyping grants, and extend a follow-on seed grant to one high-potential venture. By combining funding, incubation, and technical mentorship, the program strengthens university-led climate innovation and accelerates the development of low-carbon technologies in India.

3. UTIF - Vellore Institute of Technology – Technology Business Incubator (VIT – TBI): UTIF partnered with VIT–TBI to launch a 7-month Student Venture Acceleration Program supporting student-led startups addressing urban and climate challenges. The program provides mentorship, funding, and pre-incubation support to help innovators move from ideas to prototypes and commercialization. In 2025–26, 10 startups are receiving structured mentorship and training, with 8 of them awarded prototyping grants to advance their climate-tech solutions.

Risk-free funding for student prototypes — empowering bold ideas with low risk and high impact

Dr. Harsh Sethi

Founder & CEO
TriNANO Technologies Pvt Ltd

At TriNANO Technologies, we're working to improve the efficiency of solar energy through a nano-coating technology we've developed; one that's self-cleaning, anti-reflective, and light-trapping. It's a solution aimed at reducing panel maintenance and improving energy output, especially in high-dust environments like India. While our early lab results were promising, moving toward real-world applications brought a different set of challenges.

Like many early-stage startups, we were navigating questions around funding, strategy, and scale. We knew our product had potential, but we needed the right kind of support to take the next steps thoughtfully. The Eureka program by the UofT India Foundation, in collaboration with E-Cell IIT-B, offered space for reflection and refinement. Through its sessions, we were able to revisit some key decisions around how we positioned ourselves, which markets we should prioritize, and how best to approach scaling. What stood out was not just the mentorship, but the openness of the conversations. We found ourselves in a network of people who understood both the possibilities and the hurdles of building something from the ground up.

Looking ahead, we feel better equipped to scale responsibly. We've filed patents in the US and EU, and we're on track to roll out our robotic coating machines across India. Our goal is a stronger global presence. We believe in our ability to build something that lasts. There is a need for more such Programs to encourage entrepreneurs and startups in India and across the globe, so that more such technologies are built for a cleaner and greener planet.

CZC is a first-of-its-kind initiative launched in 2016 at IIT Madras to facilitate the lab-to-market transition of eco-innovations, supporting more than 100 eco-innovations so far. IIT Madras is happy to partner with the UofT India Foundation for CZCs 5th cohort, where it has successfully worked with the Foundation to nurture innovations and to build startups in sustainability and circularity.

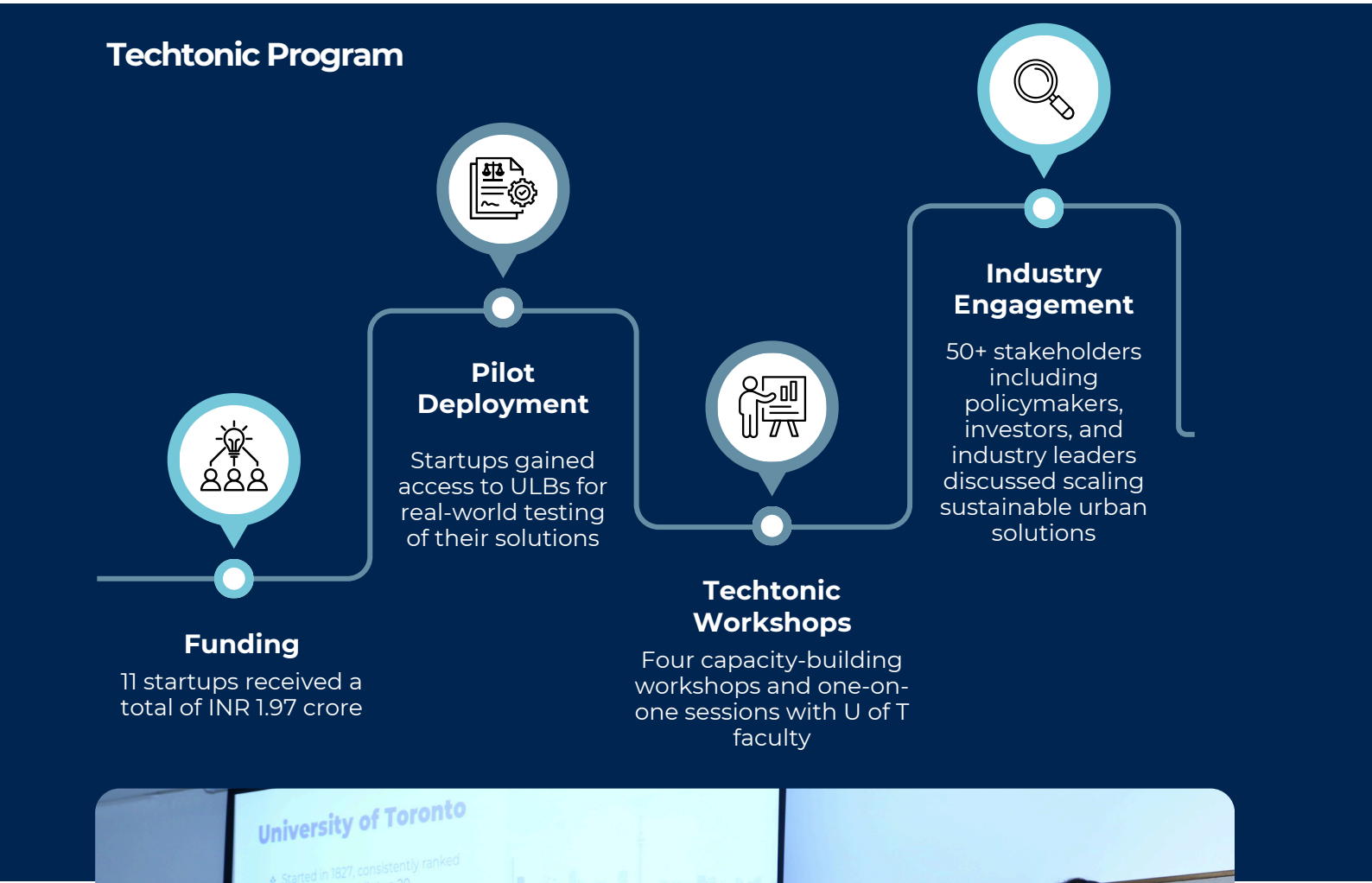
Dr. Indumathi M. Nambi
Head, Carbon Zero Challenge,
Professor, Environmental and Water Resources Engineering Division,
Department of Civil Engineering, IIT Madras

Incubate

For founders who are slightly further along and already have a shaped, validated idea, UofT India Foundation (UTIF) steps in to accelerate their next stage of growth by providing grant funding, technical mentorship and access to our expansive network, enabling startups to pilot solutions and scale successfully.

Techtonic: Innovations in Sustainable Urban Transition Challenge (with Social Alpha)

In August 2024, UTIF partnered with Social Alpha to launch the Techtonic Challenge, aimed at identifying and supporting innovative startups focused on urban sustainability and climate resilience. The program's objective is to bridge the gap between innovation and market deployment, ensuring scalable impact in urban environments.



Gauravi Lobo, Country Head, UTIF presenting during the convening of the Techtonic Program in Bengaluru, 2025.

The pilot deployment stage enables startups to test and refine their solutions in real-world urban settings. On-ground operations, pilot facilitation, venture mentoring, stakeholder engagement and deep contextualization of technologies, along with global insights, international best practices, research frameworks, and cross-sectoral knowledge sharing enriches the program's design and execution strategy.

Real-world pilot deployments help both the product and the startup's readiness for scale. They allow innovators to test their solutions in complex, uncontrolled environments—revealing practical challenges, refining usability, and generating data that builds credibility with future investors or customers. For climate-tech startups, this is especially important because adoption often depends on how well the product performs in diverse urban settings.

Impact of the selected Pilot Deployment

64,404 kg
Carbon dioxide equivalent emissions avoided

1,57,200 ltr
Water saved during the manufacturing process

84,000 kg
Plastic waste diverted from landfills

2,52,000 kg
Construction & demolition waste diverted from landfills

(The impact metrics for Angirus are based on current manufacturing targets.)

11,290 kg
Carbon dioxide equivalent emissions avoided

24,049 kg
By-products upcycled

29,337 kg
Quarrying avoided by using recycled aggregates

10
Artisans supported with enhanced livelihoods

25,264 kg
Carbon dioxide equivalent emissions avoided

11,760 ltr
Water saved in the mixing and curing process

45,424 kg
Industrial waste diverted from landfills

4205.26 kg
Carbon dioxide equivalent emissions avoided

1,541 kg
Agricultural waste prevented from being burnt or dumped

75
Electric pushcarts deployed

100%
75 women waste pickers benefited

15
E-carts deployed, for 15-30 women

Srihari Balaji
Co-founder & CTO
Albatross Energetics

Keeping buildings cool and comfortable in India's hot, humid climate is a challenge that affects millions of people every day. Traditional air conditioning systems are often energy-intensive and expensive. At Albatross Energetics, we are reimagining air conditioning for the 21st century with our Liquid Desiccant Dedicated Outdoor Air System (DOAS) that's both energy-efficient and well-suited to India's warm and humid climate. Our focus is on building ultra-energy-efficient, humidity-controlled cooling systems suited for India's warm and humid climate.

But moving from the lab to real-world settings is rarely a straight line. One of our core challenges for us was securing credible pilot opportunities that could validate our technology in real-world conditions. The UofT India Foundation in partnership with Social Alpha helped us identify a promising pilot site in Kerala. The teams facilitated introductions, coordinated with the Kerala Development and Innovation Strategic Council (K-DISC), and helped us navigate local implementation logistics. Their on-ground support during the unloading, installation, and commissioning of our DOAS system was crucial.

This pilot enabled us to validate not only the performance of our system but also to understand the nuances of on-site installation, user interface design, and serviceability. It offered critical feedback for scaling and standardizing our product for future deployments. Beyond the technical learnings, the visibility and credibility gained through this initiative are already helping us unlock additional pilot opportunities across India.

With this successful pilot behind us, we are now better equipped to design scalable deployment models, build stronger institutional partnerships, and take concrete steps toward commercialization.

Looking Ahead

Our ultimate goal is to drive meaningful change across India. Through our initiatives, we foster long-term value creation and promote sustainable growth, ensuring the solutions benefit communities across India, and ecosystems globally. The UofT India Foundation (UTIF) is strengthening strategic partnerships to address critical urban challenges through innovative, data-driven projects.

Building Heat Resilience in Jalgaon with Women-Led Heat Action Plan

As climate stressors intensify across India's smaller cities, the work underway in Jalgaon offers valuable lessons for urban practitioners, planners, and policymakers. Anchored in collaboration between Jalgaon Municipal Corporation, Mahila Housing Trust (MHT), and UTIF, the project highlights how multi-stakeholder partnerships rooted in community leadership can lead to inclusive and responsive climate action.

At its core is the development of a localized, women-led Heat Action Plan that draws on grassroots knowledge and lived experience. Through participatory governance and on-ground data, Jalgaon is building both technical and social capacity to manage extreme heat in smaller urban centers. As the project progresses, it will offer practitioners navigating heat stress in similar urban contexts insights into co-creating locally relevant solutions for rapidly urbanizing regions that can shape more equitable and resilient urban futures.

Reimagining Water Systems for India's Cities

Indian cities face growing water stress from aging infrastructure and unequal access. UTIF and Development Alternatives are exploring how climate-smart informatics and AI can improve urban water governance in Indian cities. The project studies data gaps, inefficiencies, and usage patterns to co-develop a real-time monitoring tool that helps Urban Local Bodies make fairer, informed decisions on water access and efficiency.

It aims to build inclusive water management through partnerships among municipalities, researchers, and civil society, offering a replicable data-driven model for resilient, equitable urban water systems in resource-limited settings.

Cities of Care Conference

On January 30-31, 2026, the UofT India Foundation (UTIF) will co-host the **Cities of Care Conference** in Chennai in partnership with IIT Madras and School of Cities, University of Toronto. The convening has attracted 86 research abstracts from India and around the world. Centered on the **water–food–waste nexus**, the conference will explore how cities can embed care, equity, and resilience into their systems and governance. By convening leading researchers, practitioners, and policymakers, the conference aims to spark new collaborations and generate actionable insights that advance climate-resilient, inclusive, and regenerative urban development across India's diverse cityscapes.

Techtonic Pilots - Driving Urban Innovation

Pilot projects from the first cohort featuring startups like Angirus, CarbonCraft Design, RecycleX, and Strawcture Eco, showcased circular economy innovation and offered key insights on policy, adoption, and financing. As these pilots wrap up, focus now shifts to scaling through government, CSR, and philanthropic partnerships.

Building on this momentum, the 2025-2026 cohort received an overwhelming response, with 130 applications, a testament to the growing interest in co-creating scalable, tech-enabled solutions for India's sustainable urban realities.

Bringing Climate Conversations to the Last Mile: CoP in Raigad

As climate risks intensify across India, the Conference of Panchayats (CoP) offers a compelling model for locally led climate action. Inspired by the global COP, anchored in Raigad, Maharashtra, this three-year, grassroots-led initiative demonstrates how locally grounded institutions can integrate climate resilience and the SDGs into everyday governance. Through strengthened Gram Panchayat Development Plan (GPDP) processes, community-led planning, and evidence-driven implementation, CoP aims to generate models that can inform policy across the Global South. The UofT India Foundation (UTIF), in partnership with TISS, the Policy Development and Advisory Group, Asar Social Impact Advisors and Waatavaran, aims to work with over 50 Gram Panchayats to embed climate priorities into local development planning. The UofT Sustainable Development Goals Institutional Strategic Initiative (SDGS ISI) contributes analytical frameworks, evaluation tools and global SDG partnerships, advancing its mission to support the UN 2030 Agenda through interdisciplinary collaboration. For urban practitioners, this underscores the power of decentralized leadership and cross-sector collaboration in tackling the climate crisis.

Important Links

Reports

AI & the City Conference Report

Data Driven Storytelling and Visualization Workshop Report

Creative Techniques for Visual Representation Workshop Report

Crush Workshop Report

Student Capstone Projects

Digital guidebook on the SWaCH Model of Pune's Waste Pickers

- Digitizing SWaCH's Sustainability Efforts: A Model Guidebook

The Guide to Revitalizing Areas Under Flyover

- Repurposing Underused Urban Spaces in Pune, India

Resource Guide for Pune's Transgender Communities

- Resource Guide for the Transgender Community in India

Disease of the Stone Project

Amplifying Urban Voices Through City Archives

Making Way for the Subway in Pune, India

Podcast

Voices from the Food Frontlines Podcast

Contact Us

If you want to collaborate with us, share your research, discuss an idea, or just meet us for an insightful conversation, feel free to reach out to us!

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