

THE CIRCULAR CAMPUS ASSESSMENT INDEX

Insights from the Pilot and a Pathway
for Indian Higher Education



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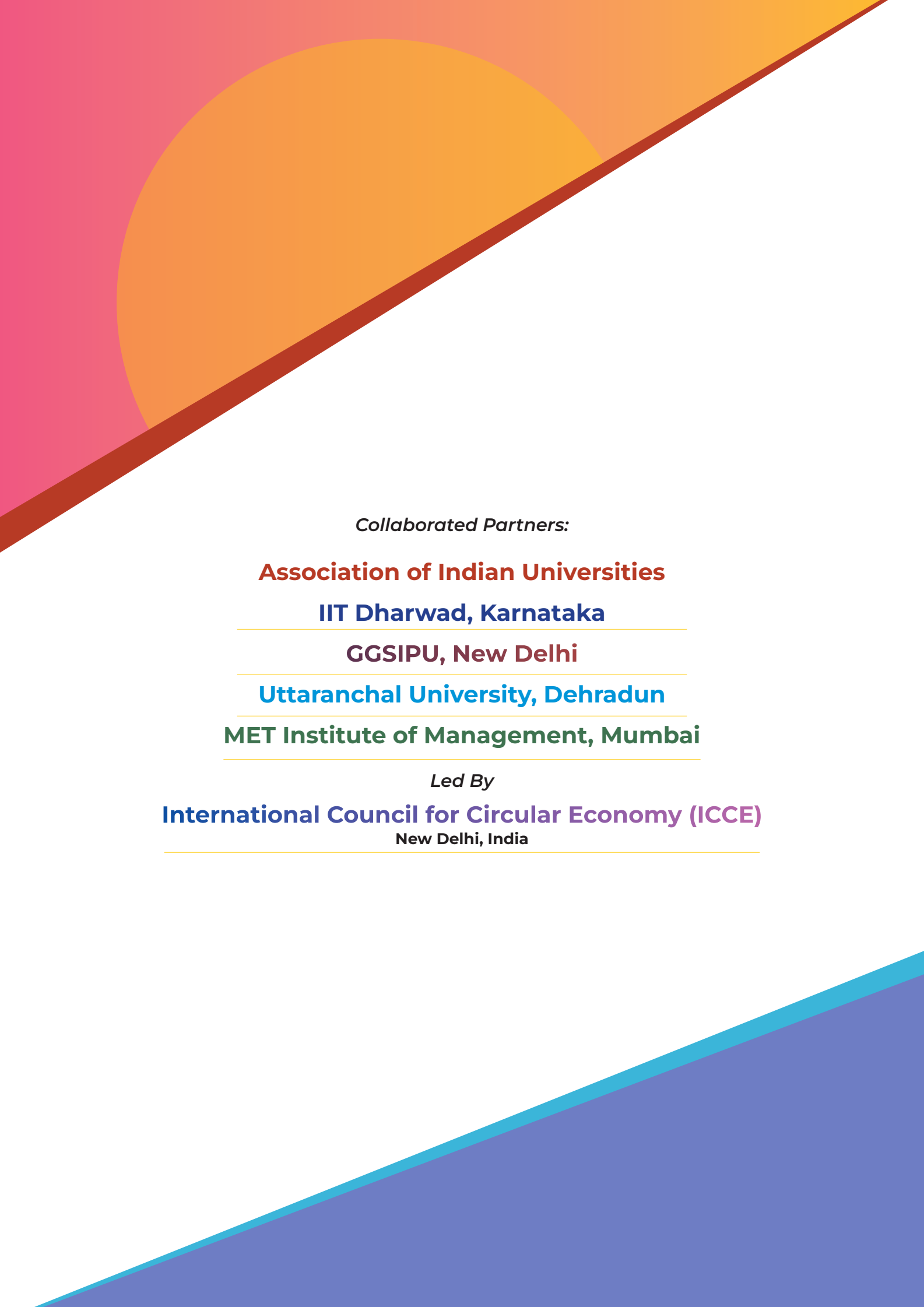
A Joint Report by
ICCE & AIU



Association of Indian Universities

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Collaborated Partners:

Association of Indian Universities

IIT Dharwad, Karnataka

GGSIPIU, New Delhi

Uttaranchal University, Dehradun

MET Institute of Management, Mumbai

Led By

International Council for Circular Economy (ICCE)

New Delhi, India

PREFACE



INTERNATIONAL COUNCIL FOR CIRCULAR ECONOMY

The idea of a Circular Campus began with a simple yet profound question: Can our universities become places where sustainability is not only taught, but experienced every day? Over the past year, that question has evolved into a remarkable learning journey—one that has reaffirmed our belief that India's Higher Education Institutions have the potential to become living laboratories for building a more resilient, resource-efficient and regenerative future.

The Circular Campus Pilot was never intended to be a ranking exercise. It was designed as a collaborative effort to understand how campuses consume resources, generate waste, manage natural assets, and most importantly, how they can transform these systems into opportunities for learning, innovation and measurable impact. Working closely with our pilot institutions, we discovered that every campus, irrespective of its size, location or existing infrastructure, possesses unique strengths and equally unique opportunities for improvement. More importantly, we learned that meaningful transformation begins not with large investments, but with asking the right questions, collecting reliable data, and building a shared vision across the institution.

I extend my sincere gratitude to the universities that partnered with us during this pioneering pilot. Their openness, commitment and willingness to experiment made this framework possible. By sharing data, participating in discussions, and embracing new ways of looking at campus operations, they have contributed to something far larger than an institutional assessment; they have helped lay the foundation for a national movement.

One of the greatest lessons from this journey has been that while we must plan today's actions with precision, we must always be guided by a vision that extends far beyond the present. The decisions we make today about energy, water, materials, biodiversity, procurement, and education will shape tomorrow's campuses and graduates. Circularity is therefore not merely about improving operational efficiency; it is about designing institutions that prepare young people to solve problems that have yet to emerge.

Indian universities educate millions of students every year. Imagine the possibilities if every campus became a living classroom where students learned resource management by analysing their own energy systems, understood biodiversity by restoring their own ecosystems, explored circular business models through campus procurement, and developed practical solutions to real challenges within their own institutions. Such graduates will not only enter the workforce with knowledge; they will also carry with them the confidence, skills, and systems thinking needed to lead India's transition towards a low-carbon, circular, and regenerative economy.

This report, jointly prepared by ICCE and Association of Indian Universities, marks the beginning of the journey, in the direction of realising the objectives of circular economy. We hope it inspires policymakers, university leaders, faculty members and students to view their campuses not simply as places of education, but as engines of innovation, collaboration and societal transformation. Together, we can build institutions that prepare learners not only for the jobs of tomorrow, but for the responsibility of shaping a more sustainable future for generations to come.

SHALINI GOYAL BHALLA

Managing Director
International Council for
Circular Economy (ICCE)





ASSOCIATION OF INDIAN UNIVERSITIES (AIU)

Higher Education Institutions have a defining role in shaping India's transition towards a sustainable, resilient, and future-ready economy. Universities are not only centres of knowledge and innovation; they are also the places where the values, competencies, and leadership required for the nation's future are cultivated. As India advances towards its commitments under the National Education Policy 2020, Mission LiFE, the Sustainable Development Goals, and its long-term decarbonisation ambitions, our universities must become active laboratories of change.

The Circular Campus initiative represents an important step in this direction. By integrating circular economy principles into campus operations, resource management, teaching, research, and student engagement, it encourages institutions to move beyond conventional sustainability practices and adopt a systems approach that connects learning with real-world action.

Equally important is its potential to prepare students for the emerging green economy. Across sectors, the demand for professionals with competencies in resource efficiency, circular design, sustainable manufacturing, climate action, environmental management, and responsible consumption is growing rapidly. Universities have the responsibility to equip learners with these interdisciplinary skills while creating opportunities for experiential learning through campus-based projects, living laboratories, innovation challenges, and industry collaboration. Such experiences will be instrumental in developing the workforce required for India's expanding green jobs ecosystem.

The Circular Campus Assessment Framework developed by the International Council for Circular Economy (ICCE) provides institutions with a structured pathway to measure, benchmark, and continuously improve their performance across energy, water, materials, biodiversity, and circular skills. More importantly, it encourages universities to transform their campuses into living examples of responsible resource management, innovation, and environmental stewardship.

The Association of Indian Universities has consistently encouraged initiatives that strengthen institutional quality, innovation, and societal impact. I am confident that this initiative will inspire universities across the country to embrace circularity not merely as an environmental objective, but as an opportunity to build future-ready institutions, empower students with industry-relevant green skills, contribute to national decarbonisation efforts, and support India's vision of sustainable development.

I congratulate the Ms Shalini Goyal Bhalla, Managing Director, International Council for Circular Economy (ICCE) and Dr Amarendra Pani, Joint Director, Research, AIU and the Team of Research Division for this timely initiative of preparing this report and extend my best wishes for the successful implementation of the Circular Campus programme across India's higher education ecosystem.

DR. (MRS.) PANKAJ MITTAL
Secretary-General
Association of Indian Universities





ASSOCIATION OF INDIAN UNIVERSITIES (AIU)

India's aspiration to become a sustainable, resilient, and globally competitive knowledge economy requires us to rethink not only what our higher education institutions teach, but also how they function. Our universities and colleges are among the most important institutional spaces in the country—places where knowledge is created, communities are shaped, resources are consumed, and future generations of citizens and professionals are prepared. Their campuses can therefore serve not merely as places of learning, but as living laboratories for India's transition towards a circular and sustainable economy.

The Circular Campus Assessment Index marks an important step in making this transition measurable. Its significance lies in bringing together, within a common framework, the assessment of energy, water, waste, procurement, biodiversity, and Scope 3 emissions. By introducing Material Flow Analysis, GHG accounting, and the 6R Circularity Hierarchy into the higher education context, the initiative provides institutions with an evidence-based foundation for understanding how resources enter, move through, and leave their campuses.

The pilot across institutions with diverse geographical, institutional, and operational contexts demonstrates the importance of establishing a common language and methodology for campus circularity. More importantly, it highlights that sustainability cannot remain a periodic exercise undertaken only for accreditation or ranking purposes. Reliable sustainability data, institutional ownership, continuous monitoring, and integration with planning and budgeting must become part of the everyday architecture of institutional governance.

This is also an opportunity to redefine the role of higher education in India's emerging green economy. A circular campus can become a powerful experiential learning environment where students encounter resource efficiency, responsible procurement, waste minimisation, biodiversity conservation, climate action, and sustainable innovation not merely as concepts in classrooms, but as practices embedded in institutional life. Such an approach can strengthen green competencies and prepare graduates for an economy increasingly shaped by sustainability and circularity.

The proposed National Circular Campus Mission offers an important opportunity to take this agenda from individual initiatives to systemic transformation. Establishing a national data repository, developing institutional capacity through Centres of Excellence, introducing minimum circularity disclosures, and creating dedicated sustainability expertise within institutions can provide the foundations for a coordinated national movement.

The Association of Indian Universities (AIU) is pleased to collaborate with the International Council for Circular Economy (ICCE) in advancing the Circular Campus agenda in Indian higher education. I commend ICCE for conceptualising and piloting this important initiative and acknowledge Ms Shalini and the entire ICCE team for taking this collaboration forward, culminating in the preparation of this report. I extend my best wishes for its wider adoption and for the emergence of campuses that do not simply teach sustainability, but demonstrate it through the way they operate, innovate, and serve society.

DR. AMARENDRA PANI
Joint Director, Research
Association of Indian Universities





All India Council for Technical Education (AICTE)

India's higher education institutions are uniquely positioned to shape not only the knowledge and skills of our future generations but also the values and behaviours that will define a sustainable and resource-efficient society. While infrastructure and technology are important, lasting transformation begins with everyday actions—how we use resources, manage waste, conserve water, make purchasing decisions, and engage students in creating positive change on campus.

The Circular Campus initiative is a timely effort that encourages institutions to move beyond awareness towards measurable action. It provides a practical framework for understanding campus resource flows while inspiring visible, tangible improvements that can be experienced by every student, faculty member, and visitor. Whether it is waste segregation, repair and reuse initiatives, biodiversity enhancement, water conservation, energy efficiency, or student-led circular projects, these everyday practices help build a culture where sustainability becomes a way of life rather than a standalone activity.

I particularly appreciate the emphasis on experiential learning and behavioural change. Campuses offer an ideal environment where students can learn by doing, participate in meaningful projects, and become ambassadors of responsible resource use within their communities. Such experiences complement classroom education and help prepare graduates who are equipped to address the sustainability challenges of the future.

The Circular Campus Action Brief presents a practical pathway for institutions to assess their current practices, identify opportunities for improvement, and progressively build more resilient and circular campuses. I hope this initiative encourages higher education institutions across the country to embrace simple, visible, and impactful actions that collectively contribute to national priorities under the National Education Policy 2020, Mission LiFE, and India's sustainable development aspirations.

I congratulate the International Council for Circular Economy (ICCE) for developing this framework and wish this initiative every success in inspiring campuses across India to become living examples of responsible resource management and positive behavioural change.

DR. AMIT DUTTA

Director
All India Council for
Technical Education (AICTE)





INDIAN INSTITUTE OF TECHNOLOGY, DHARWAD

As a premier residential centrally funded technical institution (CFTI) of National Importance, located amidst the unique ecological landscape near the dense forests of Karnataka, IIT DHARWAD is proud to have served as a pioneer in the Circular Campus Assessment Index 2025–26 Pilot Program. This initiative represents a critical shift in how we perceive our campus—moving beyond simple infrastructure to treating our Land as a “Living Laboratory” for sustainability and innovation.

Through our partnership with the International Council for Circular Economy (ICCE), we have completed a comprehensive six-proforma data-collection exercise. This process covered essential resource domains, including Energy & GHG (Greenhouse Gas) Emissions, Water & Wastewater, Solid Waste, Procurement, Biodiversity, and Commuting. For the first time in our institutional history, we now possess a verified, GHG Protocol-aligned baseline that maps our material flows and carbon footprint.

This pilot exercise has reiterated the clear strategic priorities for our campus, such as the potential for closed-loop water systems and the integration of renewable energy sub-metering to eliminate Scope 2 emissions. Furthermore, our proximity to diverse forest ecosystems provides an unparalleled opportunity to lead in biodiversity mapping and carbon sequestration quantification, turning our green cover into a vital pedagogical asset.

By embedding these circularity principles into our operations, we are operationalising the vision of the National Education Policy (NEP) 2020. We are not merely teaching environmental theory; we are providing our students with a live curriculum where they can analyse, appreciate and replicate a real-world resource system. IIT DHARWAD remains committed to this roadmap, contributing to the proposed National Circular Campus Mission and ensuring our graduates are equipped to lead India’s transition toward a regenerative and low-carbon economy.

**PROF VENKAPAYYA
R DESAI**
Director
IIT Dharwad



PROF K V JAYAKUMAR
Senior Adjunct Professor
and Outreach Advisor
IIT Dharwad





MET Institute of Management, Mumbai

It is a matter of immense pride and satisfaction that MET Institute of Management has emerged as a pioneer in advancing the principles of the circular economy within higher education. As the first management institute to establish a dedicated Circular Economy Lab, we have consistently demonstrated our commitment to integrating

sustainability, innovation, and responsible resource management into both academic and institutional practices.

Today, as we join the Circular Campus initiative under the aegis of the International Council for Circular Economy (ICCE), we take another significant step towards transforming our campus into a living laboratory of sustainability. This initiative aligns perfectly with our vision of preparing future leaders who are not only professionally competent but also environmentally conscious and socially responsible.

A Circular Campus goes beyond conventional sustainability practices. It reimagines how institutions consume, manage, and regenerate resources by embedding circular-economy principles across campus operations, learning, and stakeholder engagement. Through focused efforts in Energy, Water, Materials, Waste Management, and Sustainable Procurement, we aim to create systems that minimize waste, enhance resource efficiency, and contribute positively to the environment. Being located in the heart of a metropolitan city presents both opportunities and challenges. While space constraints limit large-scale biodiversity interventions, they also encourage innovation in resource optimization and sustainable urban campus management. Our approach demonstrates that meaningful contributions to sustainability are possible regardless of campus size, provided there is commitment, collaboration, and a clear vision.

The Circular Campus initiative reflects our belief that educational institutions must lead by example. By integrating circular practices into our daily operations and academic ecosystem, we seek to inspire our students, faculty, staff, and industry partners to embrace sustainability as a way of life rather than a standalone initiative.

I extend my sincere appreciation to the International Council for Circular Economy (ICCE) for providing a valuable platform that encourages institutions to adopt and showcase circular economy practices. I also congratulate the faculty members, students, administrative staff, and all stakeholders whose dedication and efforts have made this journey possible.

As we move forward, we remain committed to fostering innovation, promoting responsible consumption, and contributing meaningfully to a more resilient and sustainable future. Together, let us transform our campuses into catalysts for circularity and agents of positive change.

DR. SWATI LODHA
Director
MET Institute of
Management, Mumbai



Message from VC, Uttarakhand University, Dehradun



UTTARANCHAL UNIVERSITY, DEHRADUN

It is a privilege for Uttarakhand University to have been among the four institutions selected for the Circular Campus Assessment Index Pilot, led by the International Council for Circular Economy (ICCE). As a private residential university situated in Dehradun, a rapidly growing city in the ecologically sensitive Himalayan foothills of Uttarakhand, we occupy a unique position as our campus sits at the intersection of urban expansion and mountain ecology, and the choices we make about energy, water and waste carry consequences that extend well beyond our campus boundary.

Participating in this pilot gave us our first verified, structured baseline across the six resource domains of energy, water, waste, procurement, biodiversity and commuting. For a university that has grown quickly in recent years with over students, this exercise was both recreating and clarifying. It showed us where our systems already perform well, where gaps remain invisible without rigorous data, and how much potential lies in treating our campus not merely as infrastructure, but as a living laboratory for sustainability training.

Our location in a high-density Himalayan city brings specific responsibilities. Water security, waste management and the protection of the region's biodiversity are not abstract policy concerns for us, rather they are immediate operational realities shaped by our geography. The ICCE framework has helped us begin mapping these flows with precision and has reinforced our conviction that circularity must be built into how a campus runs, not treated as a parallel initiative to academics and administration.

We are equally mindful that our students will graduate into a world that urgently needs practitioners fluent in resource stewardship, low-carbon design and regenerative thinking. Uttarakhand University is committed to using insights from this pilot to embed circular economy principles into our curriculum and campus operations alike, so that our students learn sustainability not only in the classroom but through the everyday functioning of the institution around them.

I congratulate ICCE for developing a methodology grounded in scientific rigor yet sensitive to the diversity of Indian higher education, and we look forward to contributing to the proposed National Circular Campus Mission as it takes shape under the National Education Policy 2020.

PROF. DHARAM BUDDHI

Vice Chancellor
Uttarakhand University



Executive Summary

THE GAP	THE PILOT	THE OPPORTUNITY	THE ASK
Indian campuses lack circular verified sustainability data & a national framework	Circular Campus Assessment Index piloted across 4 institutions, produced MFA & biodiversity baseline data	Circularity is measurable, teachable & economically viable, even at the pilot stage	National Circular Campus Mission (NCCM) under NEP2020

The Gap

India's higher education sector is one of the world's largest, with over 4.46 crore (44.6 million) students enrolled in higher education institutes, according to the latest All-India Survey on Higher Education (AISHE). This massive system comprises over 58,000 Higher Education Institutions (HEIs) across the country. These HEIs are like small cities in themselves, sometimes housing over 17,000 students on their campuses. Despite growing global attention to environmental performance in education and several scattered initiatives, the vast majority of Indian institutions operate without baseline data on energy, water, waste, or carbon emissions. There is no standard methodology, no reporting mandate, and no institutional incentive structure that drives campuses towards circularity. The result is a sector-wide data gap that renders India's campuses invisible in global sustainability benchmarks and leaves them disconnected from the country's own climate commitments.

The Pilot

The International Council for Circular Economy (ICCE) designed and deployed the Circular Campus Assessment Index - a data-collection initiative that includes Material Flow Analysis (MFA), the GHG Protocol, and a biodiversity-aligned reporting methodology tailored for Indian higher education institutions. The framework was piloted from July 2025-June 2026 across four Higher Education Institutions of contrasting profiles: IIT Dharwad (a government residential institute near dense forest in Karnataka), GGSIPU (a government institute in urban Delhi), Uttaranchal University (a private University in the highly populated Himalayan city of Dehradun) and MET Institute of Management (an old private college in compact urban Mumbai). All institutions were a part of the pilot that collected operational data across six resource domains: Energy, Water, Waste, Procurement, Biodiversity, and Scope 3 emissions. The data focused on the first-ever campus-level Material Flow Analysis and GHG baseline, structured around the 6R Circularity Hierarchy (Rethink, Reduce, Reuse, Refurbish, Recycle, Recover) and campus biodiversity.

The Opportunity

The pilot evaluation, even at an early stage, brought into focus several shared opportunities that broadly represent where Indian higher education institutions stand today and, more importantly, where structured support could make a meaningful difference. The pilot consistently surfaced a set of systemic challenges that reflect the natural starting point of a sector that has not yet had access to a common framework, shared methodology, or institutional mandate to act. First, most campuses have yet to establish reliable, consistent data points across their core resource domains. Without this foundation, planning and resource allocation tend to be guided by experience and estimates rather than verified evidence, a gap that a structured evaluation framework is well placed to address. Second, the flow of resources through a campus, how energy is consumed across buildings and operations, where water moves from intake to discharge, and how materials cycle through procurement and disposal, is rarely mapped in an integrated way. Developing this systems-

level view opens up significant opportunities for efficiency, cost savings, and circular value recovery that would otherwise remain invisible. Third, data on campus biodiversity, green cover, and ecological assets are areas where most institutions are only beginning to build capability. Many campuses, particularly those in Tier-2 cities and semi-urban settings, hold considerable ecological value in their land and green infrastructure, which, once documented and monitored, can become a meaningful asset in sustainability rankings and institutional identity. Fourth, almost no institution in India has a dedicated internal resource, a person, a system, or a process responsible for collecting, maintaining, and quality-assuring sustainability data. Sustainability data collection tends to be a periodic rather than a continuous activity, often undertaken in preparation for accreditation or assessment cycles. Building a small but dedicated internal capacity for ongoing data stewardship would enable institutions to move from point-in-time snapshots to the longitudinal trend evidence that rankings bodies increasingly look for. Fifth, understanding what is purchased, in what quantities, and from where is the first step towards embedding circularity criteria into supply chains and reducing embodied carbon across campus operations. Eventually, the single largest source of unaccounted Scope 3 emissions for most campuses is universally undocumented. Sixth, aligning sustainability objectives with institutional planning, budgeting, and academic programming so that circularity becomes part of how a campus runs, rather than an additional activity, is the transition that separates high-performing circular campuses from those still at the beginning of their journey.

The Ask

- Recognise the Circular Campus Framework by ICCE as the national standard methodology and launch a National Circular Campus Mission (NCCM) under the National Education Policy 2020, with a mandate to certify 500+ institutions by 2030.
- Establish a Central Circular Campus Data Repository for national benchmarking, linked to NAAC and NIRF accreditation and ranking systems.
- Establish a Centre of Excellence that could provide support and build the capacity of Indian Universities and colleges to become Circular.
- Mandate minimum circularity disclosure standards for all centrally funded institutions (IITs, NITs, Central Universities) by the academic year 2026–27.
- Mandate HEIs to have a Sustainability/Circularity Expert dedicated to working on Campus circularity and data collection, thereby enabling practical, experiential decision-making.

Background

The Origin of the Circular Campus Initiative

The International Council for Circular Economy (ICCE) was established as a neutral, policy-industry bridge entity dedicated to accelerating circular economy transitions across key sectors of the Indian and global economy. ICCE brings together regulatory expertise, industry application knowledge, and academic research capability to produce frameworks that move beyond theoretical models into ground-level implementation.

The Circular Campus Assessment Index Initiative emerged from a recognition that India's higher education institutions occupy a unique position at the intersection of three converging pressures: India's nationally determined climate contributions under the Paris Agreement; the growing competitive importance of sustainability metrics in global university rankings; and the transformative mandate of the National Education Policy 2020 (NEP2020), which explicitly envisions universities as engines of social and environmental transformation.

Over the course of 2025–2026, ICCE undertook a design and consultation process to develop an India-specific campus sustainability framework that would be: (a) grounded in internationally accepted methodologies Green House Gases (GHG Protocol Scopes 1–3; Material Flow Analysis; biodiversity); (b) adapted to the realities of Indian campus infrastructure, data-availability constraints, and institutional diversity; and (c) capable of generating the kind of longitudinal, comparable data that rankings bodies, policy makers, and funders increasingly demand.

What Is a Circular Campus?

A Circular Campus is an institution of higher education that operates its physical infrastructure, resource systems, procurement, and academic programming as an integrated circular economy where the flow of energy, water, materials, and biological resources is designed to eliminate waste, maximise resource productivity, and regenerate natural systems, rather than follow the conventional linear extract-consume-dispose model. Circular campuses operate through Six key dimensions as described in Table 1.

Working Definition (ICCE, 2025)

A Circular Campus is a higher education institution that systematically applies the principles of the circular economy to its campus operations, achieving measurable improvements across five dimensions: energy transition, water circularity, material and waste management, sustainable procurement, and biodiversity regeneration supported by robust, verified data and embedded in its academic and community mission.

Table 1: The Six Dimensions of a Circular Campus

Dimension	Linear Campus	Circular Campus
Energy	100% grid-dependent; fossil electricity; no metering	Renewable generation; sub-metering; zero Scope 2 ambition
Water	Freshwater consumed; wastewater discharged; no tracking	Closed-loop STP; reuse for irrigation; rainwater harvesting
Waste	Mixed waste to landfill; no segregation; no data	5-stream segregation; composting; authorised e-waste recycling
Procurement & Materials	Unrestricted purchasing; no circularity criteria; Scope 3 invisible	Circular procurement policy; local sourcing; refillable packaging
Biodiversity	Green cover as aesthetic; no inventory; no measurement;	Tree census; species monitoring; carbon sequestration quantified
Green Skills	Sustainability taught as elective theory disconnected from campus systems; no faculty trained in LCA or circular design	CE competencies mandatory across disciplines; campus systems used as live curriculum; faculty trained in circular economy and eco-design; student governance structures monitoring campus loops

Unique Initiative

The Circular Campus Assessment Index departs from conventional campus sustainability in three fundamental ways:

From Compliance to Performance

Conventional campus sustainability initiatives are driven primarily by regulatory compliance (waste segregation rules, pollution control board norms) or by external ranking pressure (planting trees before a QS or NIRF assessment). They are episodic, siloed, and rarely embedded in the institution's operational DNA. The Circular Campus model replaces this with a continuous, data-verified performance architecture where circularity KPIs are tracked monthly, benchmarked nationally, and integrated into the institution's governance and budgeting cycle.

From Projects to Systems

On a conventional campus, a composting unit is a composting unit. On a Circular Campus, the composting unit is a node in a network: its output feeds the campus nursery; the nursery produces biodiversity plantings and food garden inputs; the food garden reduces procurement; reduced procurement lowers Scope 3 emissions; and lower Scope 3 emissions improve the institution's carbon profile in rankings submissions. The innovation is not the technology; it is the intentional design of inter-system resource flows that make each investment more valuable than it would be in isolation.

From Cost Centre to Value Generator

The evidence demonstrates that circular campus infrastructure, if designed correctly, is not a sustainability cost but an institutional asset. A wastewater treatment system with a 3.5–4x ROI and a two-year payback offers better financial performance than most routine institutional capital expenditures; a biogas plant displaces Rs. 1.6–2.0 lakh in energy costs, creating revenue and savings streams rather than expense lines.

The Futuristic Dimension: Campuses as a Climate Infrastructure

By 2030, the Circular Campus model positions Indian higher education institutions not merely as consumers who reduce their environmental footprint, but as active contributors to India's climate infrastructure with a distributed renewable energy generation; managing wet waste in situ; a large-scale biodiversity restoration programme with measurable carbon sequestration; a training and demonstration ecosystem for circular economy skills; and a living laboratory for the next generation of sustainability innovators, researchers, and practitioners. This living laboratory dimension is not incidental to the Circular Campus model — it is its highest-order return. Every resource system on a circular campus, from the solar array to the composting unit to the biodiversity corridor, is simultaneously a research site, a data source, and a teaching environment; the campus that operates circularly is, by design, one that trains circular thinkers.

This is what NEP 2020 envisions when it calls for universities to be agents of social and national transformation. The Circular Campus is that vision made operational. A pilot assessment of where Indian higher education stands today against global sustainability benchmarks reveals a significant and quantifiable gap across all six dimensions of the Circular Campus model. (Table 2)

Energy - The Renewable Transition Gap

The global benchmark for leading campus sustainability programmes is a renewable energy share of 70–100%. India's higher education sector as a whole has an average renewable penetration well below 20%. The pilot starkly reinforced this picture: while select institutions have made significant progress in on-site renewable generation, the majority — including large urban colleges — remain almost entirely dependent on grid electricity, with no on-site renewable infrastructure in place. The solar rooftop programme for higher education institutions has progressed slowly, and sub-metering (a prerequisite for meaningful energy management) is virtually absent across the sector.

Water - The Circular Loop Gap

Wastewater reuse rates at Indian campuses with sewage treatment systems typically range from 10–40%. The majority of institutions have no STP and discharge all wastewater to municipal drains. The sector benchmark for leading global campuses is 50–70% wastewater reuse. The absence of water body data, rainwater harvesting measurement, and greywater recycling systems is the norm across Indian higher education.

Material - The Diversion Rate & Data Gap

India's higher education institutions generally achieve waste diversion rates of 30–50% at best, against a global leading-campus benchmark of 70–90%. The sector-wide picture is characterised by mixed-waste disposal to landfill or municipal streams, a near-universal absence of e-waste tracking and authorised disposal channels, and food waste composted on fewer than 15% of campuses. The pilot confirmed these patterns: none of the pilot institutions had a formal composting or food waste valorisation system in place, and the absence of multi-stream segregation infrastructure was consistent across campus types — from large residential engineering campuses to compact urban colleges. Fewer than 2% of Indian universities have published a verified GHG Protocol-aligned campus carbon footprint. In contrast, over 60% of universities in the UK, Australia, and North America have published verified Scope 1 and 2 inventories, and a growing proportion report Scope 3. The absence of baseline data in India is not merely an accounting gap — it

is a strategic liability. Without a verified baseline, institutions cannot set science-based targets, credibly claim sustainability progress, or compete meaningfully in global rankings that increasingly determine their international reputation and research partnerships.

Biodiversity - The Invisible Asset Gap

Indian campuses, particularly residential institutions in Tier-2 cities and rural areas, often have substantial green cover that is undocumented and unmanaged as an ecological asset. Tree censuses, species inventories, Shannon Diversity Index measurements, and carbon sequestration quantification are nearly non-existent in institutional practices. The result is that campuses with real ecological value, potential carbon sinks, biodiversity corridors, and pollinator habitats remain invisible to rankings, funders, and policymakers. The pilot confirmed this consistently: even institutions with extensive green cover and mature tree canopies had no formalised ecological inventory, no carbon sequestration estimates, and no monitoring protocol in place, a missed opportunity that a structured national framework can address directly.

Green Skills - The Pedagogical Gap

A wide gap is evident in the pedagogical dimension of campuses with ecologically rich land holdings. Many such institutions lack mechanisms to use these assets as student field sites, faculty capacity to develop biodiversity-linked curricula, and institutional systems to document the green skills that their ecological resources can generate.

Table 2: Six Dimensions of the Circular Campus Model.

Dimension	India Sector Average	Global Leading Campus Benchmark	Gap
Renewable energy share	<20%	70–100%	50–80 percentage points — urgent
Wastewater reuse rate	<15% (where measured)	50–70%	35–55 percentage points — critical
Waste diversion rate	30–50%	70–90%	20–40 percentage points — significant
GHG footprint published	<2% of institutions	>60% in UK/Australia/North America	Sector-wide data vacuum
Biodiversity	Rare ecological exceptions only	Standard ecological monitoring at leading campuses	Near-universal ecological absence
Green Skills	CE curriculum in fewer than 3% of institutions; no faculty CE training framework	CE embedded as core graduate attribute in Netherlands, UK, South Korea	Near-universal pedagogical strategy absence

The Pilot - ICCE Circular Campus Initiative 2025–2026

Between 2025 and 2026, ICCE deployed the Circular Campus Assessment Index across four inaugural pilot institutions: IIT Dharwad (Karnataka), Guru Gobind Singh Indraprastha University (GGSIPU, Delhi), Uttaranchal University (Dehradun), and MET Institute of Management (Mumbai). These four institutions were selected deliberately to represent contrasting campus archetypes, spanning large residential engineering campuses, government-affiliated urban universities, private residential institutions in hill regions, and compact urban management colleges, ensuring that the Circular Campus Assessment Index was tested against the full diversity of India's higher education landscape.

IIT Dharwad	MET Mumbai	GGSIPU	Uttaranchal University
Karnataka • Residential Engineering Campus	Maharashtra • Urban Commuter College	Delhi • Government Urban University	Uttarakhand • Private Residential University

The ICCE Circular Campus pilot was designed to test a fundamental hypothesis: that a structured, data-verified evaluation framework can be meaningfully deployed across institutions with contrasting scales, resource endowments, and sustainability maturity and that doing so will yield actionable findings that no single institution could have generated on its own. That hypothesis was confirmed.

Over an evaluation period spanning 2025 to 2026, all four pilot institutions completed a six-proforma data-collection exercise covering energy and GHG emissions, water and wastewater, solid waste and materials, procurement, biodiversity, and commuting. ICCE processed the submitted data into verified baselines across all six indices as the first such assessments in each participating campus's institutional history.

Strategic Priorities Identified Across the Pilot

Across institutions, the ICCE evaluation produced institution-specific roadmaps structured along the 6R hierarchy. The strategic priorities shared across both campuses, and likely applicable to the majority of Indian institutions, are as follows:

- **Energy transition and sub-metering:** Where renewable generation is absent or partial, rooftop solar installation is the single highest-impact investment, with documented payback periods of four to five years and permanent elimination of associated Scope 2 emissions.
- **Wastewater treatment and circular water loops:** Sewage treatment with on-campus reuse for irrigation and landscaping is the highest-ROI water intervention available to Indian campuses, with operational savings typically exceeding investment costs within two years.
- **Multi-stream waste segregation and food waste valorisation:** Across the pilot institutions, formal composting or food waste valorisation systems were largely absent. Establishing five-stream waste segregation and a food-waste composting pathway is a zero-to-low-cost intervention that can be implemented immediately across the sector.
- **E-waste governance:** Institutes produce measurable e-waste streams with no verified disposal channel in place. Formalising an authorised extended producer responsibility (EPR) collection pathway is an immediate, low-cost governance measure.
- **Procurement data systems:** Building the internal data infrastructure to track procurement flows by category, volume, and supplier is a foundational requirement for any meaningful Scope 3 accounting. The pilot confirmed this is the most universally underdeveloped capability in Indian higher education.

- Biodiversity and green skills: Ecological mapping like tree census, species inventory, carbon sequestration quantification is absent across pilot institutions, leaving campuses with genuine ecological value invisible to rankings and policy. Equally, the pedagogical potential of campus ecosystems is unrealised: biodiversity corridors, waste systems, and water loops that could serve as live curriculum sites are disconnected from academic programming

The Circular Campus Framework Architecture

The resulting Circular Campus Evaluation framework by ICCE is built around six Proforma data-collection modules:

Table 3: Six Proforma Data-Collection Modules

Proforma	Domain	Key Variables
P-1	Energy & GHG Emissions	Grid electricity, renewable generation, fleet fuels, genset diesel, refrigerants (Scopes 1–3)
P-2	Water & Wastewater	Freshwater consumption, STP performance, reuse rates, rainwater harvesting
P-3	Material Flow Analysis_1	Food waste, paper, plastic, e-waste, hazardous waste, recycling rate
P-4	Material Flow Analysis_2	Food, paper, IT equipment, chemicals, furniture (Scope 3 Category 1)
P-5	Biodiversity & Green Cover	Tree stock, species diversity, green cover area, carbon sequestration, student ecological fieldwork integration, faculty-led biodiversity curriculum linkages
P-6	Commuting & Business Travel	Staff/student commuting modes, distances, business travel (Scope 3 Categories 6–7)

Data is processed through a Material Flow Analysis (MFA) that maps all campus inflows (energy, water, materials), internal stocks, and outflows (waste, emissions, recoverable materials), and cross-referenced against GHG Protocol Scope 1, 2, and 3 categories to produce a verified campus carbon and circularity baseline. Recommendations are structured across the 6R Circularity Hierarchy — Rethink, Reduce, Reuse, Refurbish, Recycle, Recover and sequenced so that zero-cost behavioural interventions precede capital-intensive infrastructure investments.

Circular Campus Ratings System

When we assessed the pilot institutions across the six resource domains, we found clear evidence that a single score cannot capture where an institution truly stands. The pilot covered very different types of campuses ranging from large residential engineering institutes, government-affiliated urban universities, private hill-region universities, to compact urban colleges. Yet several of these institutions landed in the same early stage of the Circular Campus Index, despite their differences in size, infrastructure, and resources. This showed us that institutions need to be placed accurately along a maturity journey, not judged by one number. Based on this evidence, we developed a structured ratings system to help Higher Education Institutions (HEI's) understand where they stand and what steps come next on their path toward net-zero operations, circular campus systems, green skills, and the SDGs. (Table 4).

Table 4: Circular Campus Rating Bands

Score Range	Rating	What It Means
Below 35%	Registered Campus	Participating institution with an early baseline
35–49.99%	Emerging Circular Campus	Basic systems in place, partial data
50–64.99%	Progressive Circular Campus	Operational systems established
65–79.99%	Advanced Circular Campus	Strong performance across multiple pillars
80–89.99%	Leading Circular Campus	Benchmark-ready circular campus
90–100%	Commuting & Business Travel	Staff/student commuting modes, distances, business travel (Scope 3 Categories 6–7)
	Regenerative Circular Campus	Best-practice campus with fully integrated circular systems

Observations: Four Systemic Patterns

1. Data Collection Unlocks Hidden Emissions

Neither institution had previously conducted a structured audit of its full operational footprint. The pilot surfaced significant emissions and resource flows that had gone unaccounted: fleet vehicles omitted from sustainability records, anomalous backup generator usage inconsistent with the campus's declared renewable energy profile, and cooling systems running on refrigerants that are globally phased out. These were not exceptional failures; they are typical of the data gaps that characterise India's higher education sector broadly. Pilot demonstrated that they become visible and therefore actionable only through systematic data collection.

2. Renewable Energy Leadership Does Not Equal Full Circularity

One of the pilot's most instructive insights is the distinction between sectoral energy leadership and holistic campus circularity. One of the pilot institutions is exceptional in its energy performance by any national or global benchmark, a level of renewable electricity generation that ranks among the best in Indian higher education. Yet the same institution had unmeasured solid waste streams, lacked a formal e-waste disposal pathway, and had significant gaps in procurement data. Circular Campus performance is multidimensional. Strength in one domain does not substitute for measurement across all domains. The Circular Campus framework makes this visible for the first time.

3. Urban Institutions Face a Distinct and Urgent Transition Challenge

Urban institutions among the pilot cohort entered the evaluation with limited or no renewable energy infrastructure, no wastewater treatment, and near-complete dependence on municipal grid electricity. This is not an outlier profile; it is representative of the majority of India's urban higher education landscape. The pilot confirmed that significant decarbonisation potential exists at such campuses, and that well-sequenced interventions beginning with energy transition and advancing through water and waste can generate measurable returns within a three-to-five-year horizon. The challenge is not technical. It is the absence of a baseline, a roadmap, and an institutional mandate to act.

4. Procurement Is the Invisible Scope 3 Frontier

Across all pilot institutions, procurement data was the most consistently underfilled domain; a pattern that the broader sector gap analysis confirms is universal across Indian higher education. Procurement (Scope 3 Category 1) represents the largest single source of unaccounted emissions for most campuses: food, IT equipment, paper, furniture, and chemicals used in labs. Without procurement data, no institution can claim a complete carbon inventory. The pilot establishes that building procurement tracking capability must be a priority intervention in Phase 1 of any national program, not because it is the easiest gap to close, but because it is the most consequential one left open.

Inferences

Drawing from the findings of the pilot and the sector gap analysis, six core inferences emerge for policy and institutional action:

Inference 1 - Data Collection Is the First Intervention

The most immediate barrier to progress on campus circularity in India is not financial; it is informational. Institutions cannot manage what they do not measure. The pilot demonstrated that a structured, systematic data-collection exercise, even at an early stage, can consistently produce findings that materially reshape institutional sustainability programmes over the next three to five years. A national framework that makes data collection mandatory, standardised, and institutionally valued (through linkage to NAAC and NIRF) would generate the information infrastructure upon which every subsequent intervention depends.

Inference 2 - Economics Must Lead, Not Follow

The reference model for Indian higher education demonstrates that the circular campus model is economically viable. A well-designed wastewater system generates returns well above its capital cost within a short payback period, making it an asset, not an expense. Renewable generation eliminates or substantially reduces grid electricity bills. When circular interventions are sequenced by financial return, starting with the highest-ROI infrastructure and advancing to longer-horizon ecological investments, institutions generate internal capital that funds the next phase. The Circular Campus framework explicitly sequences interventions this way, making the economic case for circularity before the environmental one.

Inference 3 - Integration Is the Multiplier

Exemplary performance on any single circularity metric, whether waste diversion, water reuse, or biodiversity, is not the result of any one technology or programme in isolation. It is the result of deliberately connecting systems so that each system's output becomes another's input. The value of a circular intervention is multiplied when its inputs and outputs are integrated with adjacent systems. This systems-design principle must be the basis of national technical assistance to institutions implementing circular programmes, not a catalogue of individual technologies to install, but an architectural framework for connecting them.

Inference 4 - Institutional Diversity Requires a Differentiated Approach

The four pilot institutions are all part of India's higher education system, but they are worlds apart in campus size, access to resources, infrastructure maturity, and data completeness. A national circular campus programme must accommodate this diversity, setting differentiated baselines, targets, and investment pathways for large residential campuses, compact urban colleges, agricultural universities, tribal institutions, and private universities. The Circular Campus framework was designed to be adaptable across this spectrum; the six Proforma modules can be completed at varying levels of granularity depending on institutional capacity.

Inference 5 - The Curriculum and the Campus Must Be One

The most replicable innovation in the reference model is not a technology; it is a pedagogical architecture. Every operational system on a circular campus can simultaneously function as a research site, a teaching laboratory, and a community training platform. This integration eliminates the false divide between the sustainability function and the academic programme and lowers the marginal cost of both infrastructure and education compared with budgeting them separately.

The pilot confirmed that this integration is the exception rather than the norm across Indian higher education. Campus resource systems like energy, water, waste, biodiversity are managed by administrative functions that operate in near-complete isolation from academic departments. Students who live and study within metres of a composting unit, a rainwater harvesting system, or a biodiversity corridor have no structured access to those systems as learning environments. Faculty in engineering, management, design, and environmental science have not been equipped through training, curriculum frameworks, or institutional mandate to use the campus footprint as curriculum content. The result is a structural inefficiency: the campus's own circular systems, its most immediate and data-rich pedagogical asset, remain invisible to the academic programme they could transform. Closing this gap does not require new infrastructure. It requires deliberate pedagogical design which begins with making the gap visible

Inference 6 - Global Visibility Demands National Coordination

No individual Indian institution, acting alone, can generate the data volume, methodological consistency, and programme credibility that would place India collectively on the global campus circularity map. The UK's Carbon Reduction Commitment, Australia's National Carbon Offset Standard for universities, and the EU's European Green Deal Higher Education Programme all demonstrate that national coordination with a common methodology, central data aggregation, and programme-level recognition translate individual institutional action into national sectoral impact. India needs its equivalent: a National Circular Campus Mission with the Ministry of Education as convenor, ICCE as framework custodian, and NAAC/NIRF as the accountability mechanism.

The Impact

What the Pilot Has Already Demonstrated

Despite operating at pilot scale, the ICCE evaluation has already produced tangible, actionable impact across four categories:

First-Ever Verified Campus Baselines

All four pilot institutions now possess their first verified, GHG Protocol-aligned campus footprint baselines. Prior to ICCE's engagement, none had a quantified Scope 1, 2, or 3 emissions profile. These baselines are not merely numerical; they are the prerequisite for every subsequent sustainability target, investment decision, and ranking submission the institutions will make.

Hidden Emissions Uncovered

The structured MFA process consistently uncovered previously unrecorded emissions across pilot institutions, from fleet and equipment sources that had not been captured in any prior internal reporting. These findings, invisible without systematic data collection, demonstrate that structured evaluation surfaces meaningful gaps in institutional carbon accounting. At scale, across hundreds of Indian campuses, the aggregate of such hidden emissions represents a substantial national accounting gap.

Actionable Roadmap Delivered

Each pilot institution received a prioritised action roadmap structured across the 6R hierarchy and segmented by implementation cost and urgency. High-priority zero-cost interventions (paperless campus, commuting surveys, waste segregation protocols) were identified alongside capital investment cases with quantified ROI projections. This translates the abstract goal of 'sustainability' into a concrete, budgeable institutional programme.

Cross-Institutional Learning Architecture

By simultaneously assessing four institutions with contrasting profiles, the pilot has generated a comparative dataset that reveals not just individual institutional gaps but also sector-wide patterns: the near-universal absence of wastewater reuse, the consistent blind spot around e-waste, and the chronic incompleteness of procurement data. This cross-institutional view is what any single reference institution, operating in isolation, cannot provide. It is the foundation for a national benchmarking system.

Aggregated Pilot Impact Summary

Impact Area 1	Impact Area 2	Impact Area 3	Impact Area 4	Impact Area 5
Scope 2 CO ₂ e baseline established	Captured Scope 1 emissions	Circular water loop operational	Highest-priority investment identified	Sector-wide gap confirmed

Need for India

The case for National Circular Campus Mission (NCCM) rests on four converging imperatives:

1. Climate Commitments Require Institutional Action

India has committed to achieving net-zero emissions by 2070 and reducing the emissions intensity of GDP by 45% from 2005 levels by 2030 under its Nationally Determined Contributions (NDCs). Higher education institutions with their large campuses, energy-intensive operations, residential populations, and supply chains are material contributors to India's national emissions profile. Without a systematic programme to measure and reduce campus emissions, higher education represents a blind spot in India's climate accounting. A National Circular Campus Mission would bring this sector into India's climate architecture for the first time.

2. NEP 2020 Mandates Environmental Integration

The National Education Policy 2020 (NEP2020) explicitly identifies environmental education and sustainability as cross-cutting priorities for the higher education system. It calls for universities to be 'engaged institutions' that contribute to national development and environmental sustainability. The Circular Campus framework operationalises this mandate: it makes the campus itself the site of environmental learning and action, turning NEP's vision into a measurable, verifiable programme with clear institutional responsibilities and outcomes.

3. Global Rankings Penalise the Status Quo

Three of the world's most influential university ranking systems — Times Higher Education Impact Rankings, QS World Sustainability Rankings, and UI Green-Metric now allocate significant weight to campus sustainability metrics. Indian institutions' performance in these rankings is constrained not primarily by their actual sustainability performance, but by their inability to produce verified data. The Circular Campus framework resolves this data problem directly: an institution with a verified ICCE assessment has the baseline data it needs to compete meaningfully in all three ranking systems. A national programme that drives data collection and circular practices across hundreds of institutions would materially improve India's collective position in global sustainability rankings.

4. Higher Education as a Circular Economy Demonstration Platform

India's higher education system trains professionals, engineers, policymakers, designers, and entrepreneurs who will build the circular economy of the future. Campuses that operate as circular systems are the most powerful possible training environments for this workforce. A student who has lived on a campus with a functioning STP, composting facility, solar microgrid, biodiversity corridor, and 5-stream waste segregation system does not need to be taught about the circular economy; they have experienced it. This experiential dimension gives the Circular Campus framework a human capital return that goes far beyond its direct environmental impact.

That return is only realised, however, when the campus's operational circular systems are deliberately connected to its academic programming when the biodiversity corridor becomes a field site, the waste loop becomes a material flow case study, and the energy dashboard becomes a live dataset for student analysis; the fifth dimension of the Circular Campus model makes this connection the measure of institutional maturity, not an optional enhancement.

Policy Intervention Suggestions

ICCE formally presents six interconnected policy interventions for the policymakers' consideration. Each intervention is structured from immediate administrative actions to medium-term institutional reforms, and together they constitute a coherent national programme architecture.

Policy Intervention	Recommended Action	Timeline	Precedent
Launch the National Circular Campus Mission (NCCM)	- Formally recognise Circular Campus Evaluation methodology as the national standard for campus circularity assessment, data collection, and reporting. -NCCM mandates to certify 500 as Circular Campuses by 2030 under NEP2020. -Establishing India as a global leader in higher education sustainability.	Immediate recognition within 90 days of this submission; NCCM phased rollout 2026–2030.	Analogous to MoEFCC's adoption of GHG Protocol methodology for industrial sector reporting; National Solar Mission; Smart Cities Mission; and National Clean Ganga Mission: all demonstrate the effectiveness of mission-mode delivery for national transformation at scale.
Establish a Central Circular Campus Data Repository	-Commission and maintain a Central Circular Campus Data Repository as a publicly accessible, institution-level circularity database -Link it to NAAC accreditation and NIRF ranking systems. -The repository enables national benchmarking, cross-institutional learning, and India's participation in global sustainability indices.	Commission within 2026–27; mandatory reporting integration with NAAC and NIRF by 2027.	Creates the national sustainability evidence base that enables India to contribute credibly to international forums (UN SDG reporting, Times Higher Education Impact Rankings, QS Sustainability). Analogous to the AISHE database for higher education statistics.
Establish a Centre of Excellence for Circular Campus Development	-Establishes a dedicated Centre of Excellence (CoE) for Circular Campus Development: a national resource hub that provides Indian universities and colleges with technical support, capacity building, knowledge dissemination, and peer-learning facilitation. -The CoE will anchor the training of institutional sustainability leads, curate and publish best practices, and support institutions in designing and implementing their circular campus transitions aligned with the Circular Campus framework.	Establish and operationalise by 2026–27, hosted within a premier national institution or under MoE directly.	Analogous to existing CoEs under AICTE and UGC for emerging domains as a knowledge and capacity centre

Policy Intervention	Recommended Action	Timeline	Precedent
Allocate Dedicated Funding under HEFA for Circular Infrastructure	Higher Education Financing Agency (HEFA) creates a dedicated circular infrastructure financing window for qualifying campuses that have completed an ICCE baseline evaluation and submitted a verified circular campus action roadmap. Eligible investments include sewage treatment and water reuse systems, renewable energy and sub-metering infrastructure, multi-stream waste management and composting facilities, biodiversity monitoring systems, and procurement data infrastructure. Financing is structured to prioritise highest-ROI interventions first, enabling campuses to generate internal returns that fund longer-horizon ecological programmes.	HEFA circular window operational by 2026–27; open to all NCCM Phase 1 institutions.	Consistent with HEFA's existing mandate to finance infrastructure at higher education institutions on a self-sustaining basis; circular infrastructure with demonstrated ROI (wastewater systems, solar) meets HEFA's financial viability criteria without requiring grant funding.
Mandate Minimum Circularity Disclosure Standards for Central Institutions	-Mandate all centrally-funded institutions like IITs, NITs, IIMs, and Central Universities to publish a verified annual sustainability disclosure aligned with the Circular Campus framework, covering Scope 1, 2, and 3 GHG emissions, water and wastewater performance, waste diversion rates, biodiversity indicators, and procurement data. -Disclosure must be publicly accessible and submitted to the Central Data Repository. --Direct all NCCM institutions to report annually on the Biodiversity and Green Skills dimension — including CE curriculum integration, faculty training, and student engagement with campus ecological and material flow systems — as a mandatory component of the ICCE assessment submission, using the five-criterion green skills rubric as the self-assessment instrument.	Central institutions: academic year 2026–27. All NAAC-accredited institutions: 2028–29.	SEBI's BRSR mandate for listed companies; MCA's Business Responsibility Report mandate — demonstrate that disclosure requirements, when accompanied by clear methodology and reasonable timelines, drive meaningful institutional behaviour change without imposing disproportionate compliance burden.

Policy Intervention	Recommended Action	Timeline	Precedent
Mandate a Dedicated Campus Circularity and Data Resource in every HEI	-Mandate that every Higher Education Institution maintain a dedicated resource — an individual, team, or formally designated function responsible for campus circularity and biodiversity data collection. -This role anchors continuous data stewardship and translates data into institutional decision-making, and serves as the point of accountability for national disclosure and ranking submissions. -Embedding this function at the institutional level transforms sustainability from a periodic compliance activity into a practical, evidence-led management discipline, and enables campuses to make informed, experiential decisions on resource use, investment sequencing, and circular programme design.	Mandate phased by institution type: central institutions by 2026–27; all NAAC-accredited institutions by 2028–29.	Consistent with UGC’s existing guidance on institutional sustainability cells; analogous to the mandatory Internal Quality Assurance Cell (IQAC) model — which demonstrated that a designated institutional function, even lightly resourced, significantly improves data quality, self-assessment outcomes, and continuous improvement culture across the sector.

Visual Roadmap for 2030-From ICCE to NCCM

The following timeline illustrates the progression from ICCE framework development through pilot implementation to the proposed National Circular Campus Mission rollout and 2030 targets.

2025 FOUNDATION	ICCE FRAMEWORK DESIGN & PILOT ICCE develops the six-Proforma Circular Campus Evaluation methodology based on Biodiversity rating, GHG Protocol Scopes 1–3 and Material Flow Analysis. It studies how multiple years of integrated circular campus implementation — establishing the proof-of-concept reference model for the national programme, demonstrating that a fully circular campus is operationally and financially achievable.
2025–26 PILOT	ICCE PILOT — FOUR INAUGURAL INSTITUTIONS (2025–2026) Inaugural deployment of the ICCE framework across four institutions: IIT Dharwad, GGSIPU, Uttaranchal University, and MET Institute of Management. First verified GHG baselines produced. Material Flow Analyses completed. Hidden emissions uncovered across institutions. Prioritised action roadmaps delivered. Cross-institutional comparative dataset generated. Action Brief submitted to the Ministry of Education. Biodiversity and green skills baseline completed alongside operational assessment at all four institutions — ecological inventory, curriculum integration status, and faculty capacity documented for the first time.
2026–27 LAUNCH	NCCM PHASE 1 — 25 CENTRAL INSTITUTIONS The Ministry of Education formally adopts ICCE as a national standard. National Circular Campus Mission (NCCM) launched. Mandatory sustainability disclosure for IITs, NITs, Central Universities. NAAC sustainability criterion introduced. National Data Repository commissioned. 25 institutions complete ICCE baseline assessment.
2027–29 SCALE	NCCM PHASE 2 — 200 INSTITUTIONS Scale to 200 institutions including premier state universities and private institutions. NIRF Sustainability Score introduced. First cohort of ICCE-certified Circular Campuses recognised nationally. Annual India Circular Campus Report published with international distribution. Peer learning network operational..
2030 TARGET	2030 NATIONAL CIRCULAR CAMPUS TARGETS 500+ ICCE-certified circular campuses across India 70%+ renewable energy share across NCCM institutions (vs. <20% today) 50%+ average wastewater reuse rate (vs. <15% today) 75%+ average waste diversion rate (vs. 30–50% today) 100% of central institutions with verified GHG baseline (vs. <2% today) 100% of NCCM-certified institutions with documented ecological inventories and verified green skills baselines campus biodiversity corridors actively deployed as student field sites and CE competencies embedded across disciplines positioning India in the top 10 of UI GreenMetric by 2030

Disclaimer & Confidentiality

This Circular Campus Pilot Project is an initiative of the International Council for Circular Economy (ICCE) to collaboratively develop and test a framework for assessing circularity within Higher Education Institutions in India. The pilot is exploratory and aims to generate insights, data, and methodologies that inform the final Circular Campus Assessment Index (CCAI).

Participation in this pilot was voluntary and did not constitute a formal ranking or certification. ICCE and participating institutions mutually agree that all data, information, and materials shared during the course of this project will be treated as confidential and used solely for research, assessment, and framework development purposes. ICCE has ensured that all reporting remains aggregated, anonymised, and in alignment with ethical and data protection standards.



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TOGETHER WE CAN CHANGE

Waste to Wealth | Refused to Reused | Linear to Circular

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