



भारतीय प्रबंध संस्थान बंगलूर  
INDIAN INSTITUTE OF MANAGEMENT  
BANGALORE

# Responsible Roots, Sustainable Progress





# Director's

## Foreword

I am happy to present the Sustainability Report of Indian Institute of Management Bangalore (IIMB). Sustainability is a core part of IIMB's DNA. From our inception, we have recognized the importance of environmental responsibility in shaping the future of management education. In the early years of the Institute, our first Director, Prof. N.S. Ramaswamy, exemplified this vision by leading a pioneering programme to improve the efficiency of the bullock cart — a powerful symbol of sustainable innovation rooted in local context.

Over the years, our efforts to enhance the biodiversity on campus have transformed IIMB into a true oasis in South Bengaluru. The campus today serves as a vibrant habitat for a wide variety of flora and fauna, and functions as an effective natural sink for carbon emissions. This harmony between the built environment and nature reflects our enduring commitment to ecological balance.

In recent years, guided by the leadership of our Sustainability Taskforce, we have taken meaningful steps to advance sustainability on campus. These include the installation of rooftop solar panels to reduce dependence on fossil fuels, strengthening of rainwater harvesting

systems, and the development of a dedicated pipeline to irrigate our gardens using recycled water from the sewage treatment plant. We have also implemented waste segregation protocols, conducted awareness campaigns to reduce paper usage, and ensured minimal tree-cutting with compensatory afforestation for new infrastructure projects.

Sustainability permeates every aspect of IIM Bangalore. Over the past decade, we have integrated resource resilience into teaching and research, embedding sustainability management modules into our programmes and supporting faculty-led studies on the built environment. Simultaneously, our operations teams have matured systems for rainwater harvesting, wastewater reuse, and energy savings, each addition reinforcing a continuous journey rather than a sudden shift. This integrated approach ensures our campus remains a living laboratory where theory and practice converge to produce real-world insights and scalable solutions.

But our ambition goes further: we have made changes in our academic curriculum which include a dedicated course covering sustainability issues

as well as integrating sustainability concerns with each of the core courses. Moreover, we seek to nurture graduates who carry this integrated mindset into every boardroom and policy forum. In doing so, we affirm that true leadership springs from an organization's ability to root itself responsibly in the present while charting a regenerative path for the future. As stewards of this campus and its community, we invite you to join us in shaping a resilient future defined by Responsible Roots, Sustainable Progress.

*While we have done a lot, there is much more to do. I am confident that with the commitment of all our students, staff and faculty, we will move purposefully and quickly towards net zero.*

**Prof. Rishikesha T Krishnan,  
Director,  
Indian Institute of Management  
Bangalore**





# Message from the Sustainability Taskforce Chair

In an era marked by climate change, biodiversity loss, and social inequities, the role of educational institutions in fostering sustainable development has never been more vital. The accelerating pace of planetary warming is no longer a distant threat but a lived reality. From extreme weather events to growing resource scarcity, the climate crisis is reshaping the way we live, work, and learn. As a centre of management education, critical thinking, and civic responsibility, we are uniquely positioned to shape a generation that not only understands sustainability but leads it. As custodians of knowledge and incubators of future leaders, we at Indian Institute of Management Bangalore (IIMB), recognize our profound responsibility to embed sustainability into every facet of our institution, our curriculum, our operations, and our community engagement.

This Sustainability Report reflects our collective efforts to align with India's climate commitments and contribute meaningfully to a just and resilient future. Over the past

several years, we have taken significant strides toward integrating sustainability into our campus infrastructure, operations, pedagogy, and community outreach. It reflects our values, our commitment to the United Nations' Sustainable Development Goals (SDGs), and our journey toward becoming a model green campus in India. From adopting renewable energy sources and promoting circular waste management, to embedding climate literacy in our curriculum and encouraging student-led green innovations, our initiatives are rooted in the belief that environmental responsibility must be a lived practice. India's rich tradition of harmony with nature and community-oriented living inspires our efforts.

At IIM Bangalore, we draw from this heritage while embracing innovative solutions—whether through solar energy projects, zero-waste initiatives, recharging the ground water table, or integrating climate literacy across disciplines. We are proud of the progress we have made, yet we are conscious

that sustainability is a journey, not a destination. Therefore, we have set for ourselves stringent targets to eliminate Scope 2 (by 2030) and Scope 1 (by 2035) emissions. However, achieving these targets requires transparency, collaboration and concerted effort from all stakeholders.

This report is both a mirror of our past as well as current practices and a roadmap for the transformational changes we aspire to lead. We thank our students, faculty, staff, partners, and well-wishers who have been integral to our mission. Let this report not only inform, but also inspire further dialogue as well as action across educational and societal spheres in India or abroad.

*Together, let us nurture a greener, more equitable future.*

**Prof. Haritha Saranga,  
Chairperson, Sustainability Taskforce,  
Faculty, Production & Operations  
Management,  
Indian Institute of Management  
Bangalore**





# Executive summary

## Responsible Roots, Sustainable Progress

This report highlights IIM Bangalore's continued commitment to sustainable development and responsible campus operations. It outlines our critical initiatives to reduce carbon footprint, foster innovation, and leverage technology in advancing campus-wide sustainability—from energy-efficient infrastructure and renewable energy systems to integrated rainwater harvesting and reclaimed water systems. Native landscaping and efforts to reduce waste through circular practices further support our goals. Guided by international standards and local knowledge, IIMB is working towards formal net-zero targets.

Through these efforts, the institute aims to serve as a model of practical and impactful sustainability.

At IIM Bangalore, sustainability is woven into the very fabric of the campus—from the stone-lined colonnades that open onto lush, pollinator-friendly courtyards to the hidden network of rainwater channels and recharge wells that quietly renew our groundwater. Our buildings and landscapes operate in concert: corridors shaded by native trees guide rain into underground sumps, while a modern treatment plant returns reclaimed water to nourish those same gardens. Through thoughtful

architectural design and discreet technological systems, we have created a living campus where ecological resilience underpins every facet of daily life.

IIMB's report is intended for all stakeholders and adheres to recognized reporting frameworks to maintain transparency, accuracy, and accountability. It presents data from the IIM Bangalore campus for the financial years 2019–20 and 2024–25. IIMB values your involvement in its sustainability initiatives and welcomes feedback to enhance collaborative decision-making.

Please contact us at [info@iimb.ac.in](mailto:info@iimb.ac.in)





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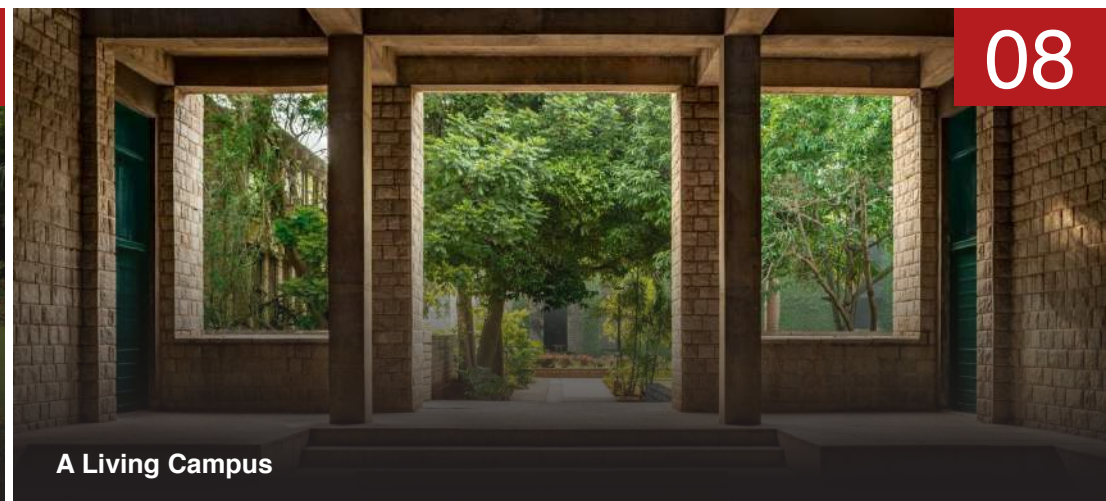
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# Institutional Ethos and Campus Architectural Identity

## Overview

Indian Institute of Management Bangalore (IIMB), recognized as an Institute of National Importance under the IIM Act of 2017, is a leading graduate school of management in Asia. Our logo carries a proclamation in Sanskrit, *Tejasvi Navadhitamastu*, which translates to 'let our study be enlightening'. It reflects our vision to be a globally renowned academic institution fostering excellence in management, innovation and entrepreneurship across business, government and society.

Strategically located in India's high-technology capital, IIMB benefits from proximity to major corporate hubs, enabling strong industry-academia integration. Our programmes include a vibrant Doctoral programme (PhD); the Post Graduate Programme in Management (PGP) and Post Graduate Programme in Business Analytics (PGPBA) where we enroll around 600 students; the Executive Post Graduate Programme in Management (EPGP) and Post Graduate

Programme in Enterprise Management (PGPEM) designed for experienced professionals, and the Post Graduate Programme in Public Policy and Management (PGPPM) aiming to build capacity for the bureaucracy. We also offer the N. S. Ramaswamy Pre-doctoral Fellowship (NSR Pre-doc) to diversify academic pathways, and have recently launched the online BBA in Digital Business & Entrepreneurship (BBA DBE) to equip future leaders for the digital economy.

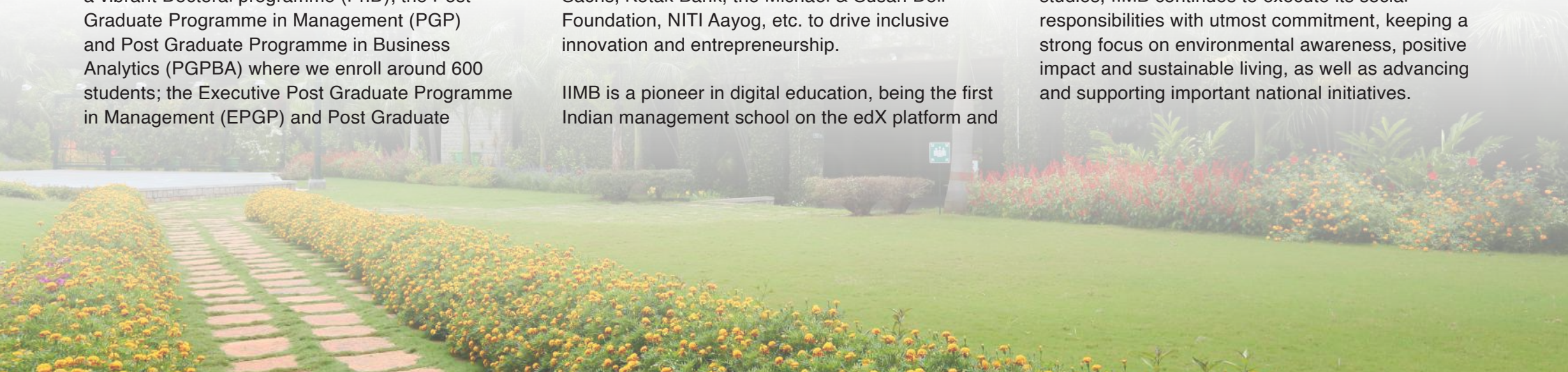
With 11 academic areas and 11 Centres of Excellence, IIMB is engaged in cutting-edge research and real-world application. We collaborate with national and global partners like Goldman Sachs, Kotak Bank, the Michael & Susan Dell Foundation, NITI Aayog, etc. to drive inclusive innovation and entrepreneurship.

IIMB is a pioneer in digital education, being the first Indian management school on the edX platform and

the coordinating institute for SWAYAM, the platform initiated by Government of India.

IIMB has been EQUIS-accredited since 2010, affirming its global standards in education, research and internationalization. Our international engagement includes exchange programmes across five continents and active participation in the Global Network for Advanced Management, comprising 32 top business schools.

We are developing our second campus in Jigani, about 27 km from the Bannerghatta Road campus, and are on an exciting trajectory of expansion and growth. Apart from offering world-class management studies, IIMB continues to execute its social responsibilities with utmost commitment, keeping a strong focus on environmental awareness, positive impact and sustainable living, as well as advancing and supporting important national initiatives.





## IIMB Motto

Let us together be protected and let us together be nourished by God's blessings / Let us together join our mental forces in strength for the benefit of humanity / Let

our study be enlightening / Let us never be poisoned with the seeds of hatred for anyone / Let there be peace and serenity in all the three universes.

ॐ सह नावतु, सह नौ भुनक्तु  
सह वीर्यं कर्वावहै  
तेजस्वी नावधितमस्तु  
माँ विद विशा वा है  
ओम् शांतिः, शांतिः, शांतिः ।।

AUM saha navavatu, saha nau  
bhunaktu  
Saha veeryam karvaavahai  
**Tejasvi navadhitamastu**  
maa vid vishaa va hai  
AUM shaantih, shaantih,  
shaantih

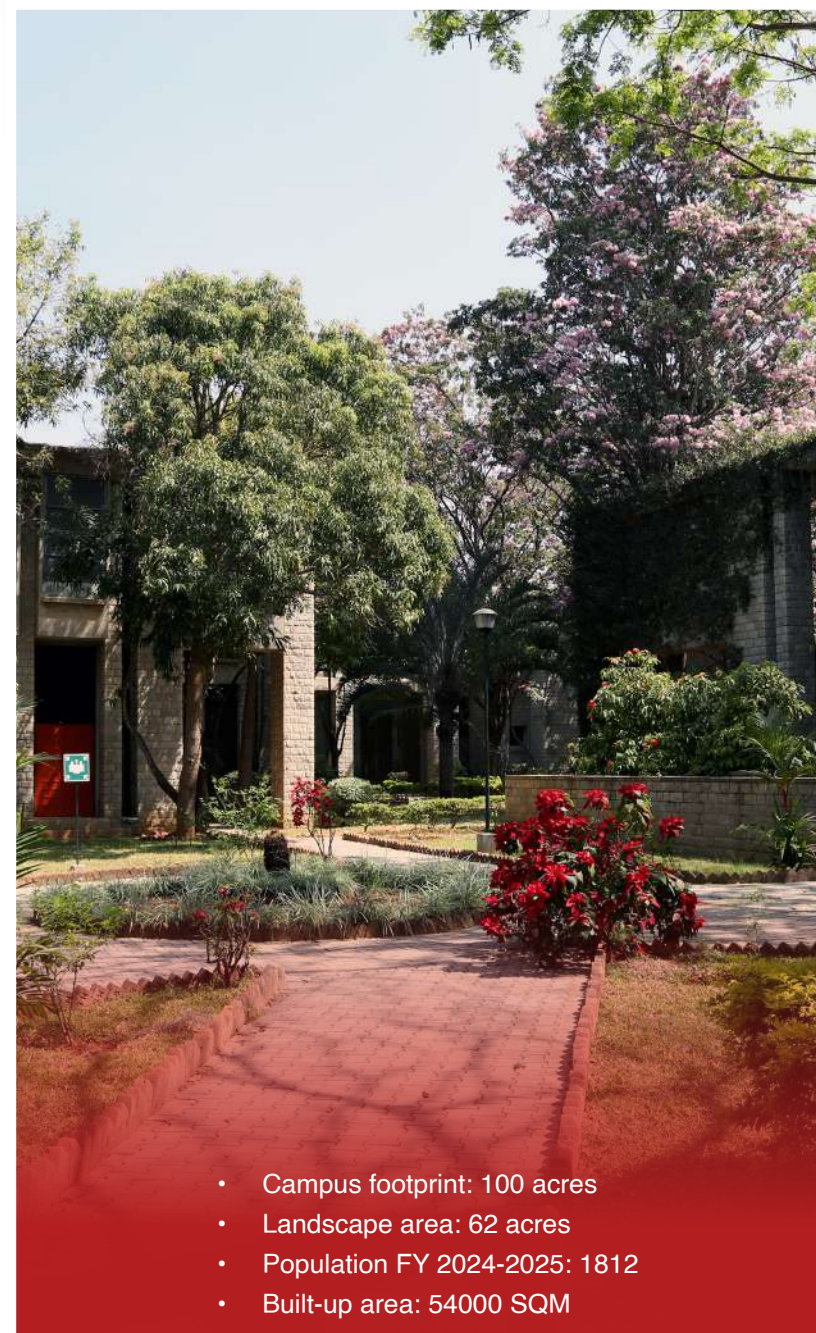
- Invocation from Taittiriya Upanishad

## Vision

To be a global, renowned academic institution fostering excellence in management, innovation and entrepreneurship for business, government and society.

## Mission

- Nurture innovative global business leaders, entrepreneurs, policy-makers and social change agents through holistic and transformative education
- Provide thought leadership that is contextually embedded and socially relevant and makes positive impact
- Pursue excellence in education and thought leadership simultaneously without making any tradeoffs



- Campus footprint: 100 acres
- Landscape area: 62 acres
- Population FY 2024-2025: 1812
- Built-up area: 54000 SQM



# A Living Campus Built to Evolve, Designed to Endure

“To create an atmosphere where you don’t see divides and doors”

When the site for IIM Bangalore was first visited over 40 years ago, it was barren land with few markers of what the future would unfold. The natural contours were subtle, the trees were sparse and Bengaluru’s ‘Garden City’ identity was yet to be achieved. What stands today is not just a campus but the result of a 20-year-long journey in discovery, of land, learning, and layered design.

The architecture was never meant to be grandiose; it was meant to be

transformational. Inspired by temple corridors, Madurai courtyards, and the ethos of learning through movement and pause, the design evolved around corridors and courtyards, where every turn offers a moment to reflect. The buildings are not static monuments but porous frames that let in breeze, sunlight, and dialogue. Built phase by phase, guided by new requirements and evolving policies, the campus grew like a living organism, adapting, stretching, and rearranging, without ever losing its essence.







“IIM Bangalore is not a building, it is a campus of corridors and courtyards, of discovery and reflection.”

— **Shri Balkrishna Vithaldas Doshi,**

Pritzker Laureate 2018, Padma Bhushan 2020 awardee, RIBA Royal Gold Medal 2022 recipient and chief architect of the IIMB campus

Materials used for construction were local. The grey stone and raw concrete not only aged beautifully but provided thermal mass, reducing the need for artificial cooling.

Every architectural detail from the window recesses that cut solar glare to the ribs that cast changing shadows served a climatic and sensory purpose. The deep verandas and open pergolas offered shelter from unexpected rain while keeping the outdoors close. Every window opens to a garden or a stone wall, reflecting light and nature back to the observer.

There was no rigid master plan. The design embraced improvisation, with changes introduced to fit the land's slopes, budget constraints, and

evolving needs. A classroom planned for 60 was redesigned for 250. An auditorium corridor was reshaped to invite pause and procession. Staircases varied in width, riser height, and placement, all to make space for gathering, discovery, and memory-making.

What emerged is more than sustainable design; it is a sustainable way of thinking. A campus where buildings cool themselves, adapt to growth, evoke surprise, and allow users to get lost, and in doing so, find their own way. A campus shaped not just by architecture, but by philosophy, climate, and the conviction that learning, like design, must always remain open-ended.



# Accelerating Environmental Responsibility

Carbon Footprint, Emissions Reduction & Net-Zero Roadmap

## Key Levers - Critical Pathways



### Biodiversity

Thriving native biodiversity on campus



### Water Stewardship

Water governance through harvesting and reuse



### Circular Economy Practices

Closed-loop systems and sustainable resource use



### Energy Efficiency

Optimized energy use through solar and passive design



### Social Responsibility

Equity-driven outreach and ethical engagement

## Highlight

- **285** species of trees and over **200** plant species in total (more than **90%** are native species)
- **90%** of campus waste generated is recycled of which **5%** sanitary waste is diverted from landfill
- 9 recycled plastic benches avoided carbon emissions equal to what **311** fully grown trees would sequester



# Carbon Footprint

## Establishing Emission Boundaries:

The organizational boundary is set using the operational control approach, wherein the institute reports emissions from all activities over which it has full authority to introduce and implement policies.

## Data Collection:

- Energy usage (electricity, cooling)-kWh
- Transportation emissions (commuting, campus vehicles)-Km/year
- Waste generation and disposal methods-Kg/Year
- Associated energy consumption and HVAC-TR
- Other Fuel Emissions-Liters/year

- Outbound activities data - km, liters

## Emissions Calculation:

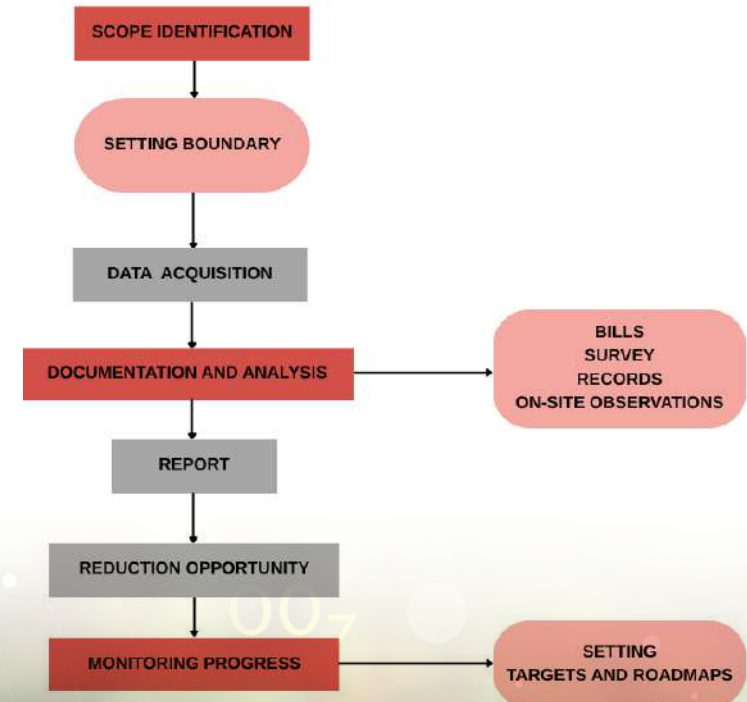
- Converting energy usage data into tCO<sub>2</sub> equivalents using emission factors taken from IPCC 2006 guidelines
- Estimating transportation emissions based on vehicle types, distances travelled, and fuel consumption
- Assessing emissions from waste disposal methods (landfilling, recycling, composting)

## Analysis:

Based on the calculated emissions data, hotspots and major sources of carbon emissions on campus were identified.

- Identifying buildings or facilities with high energy consumption
- Assessing the carbon intensity of transportation modes used on campus
- Evaluating the effectiveness of waste management practices in reducing emission

**Reduction Strategies:** Develop strategies to reduce the campus carbon footprint based on the analysis. Setting net-zero roadmaps to reduce overall per capita emissions.



CO<sub>2</sub>

CO<sub>2</sub>

CO<sub>2</sub>

CO<sub>2</sub>



## YOY Reduction Summary:

**Monitoring and Reporting:** Continuously monitor the effectiveness of implemented strategies and track progress towards carbon reduction goals. Regularly report on carbon footprint metrics to stakeholders and the wider campus community.

**Continuous Improvement:** Iterate on the process by periodically reassessing the carbon footprint, updating data, and refining reduction strategies to achieve further emissions reductions over time.

### The operational boundary

- **Scope 1:** Direct emissions from sources owned or controlled by the institute
- **Scope 2:** Indirect emissions from the consumption of purchased electricity
- **Scope 3:** (optional/indicative): Other indirect emissions such as staff/students commuting, purchased goods, embodied emissions, etc.

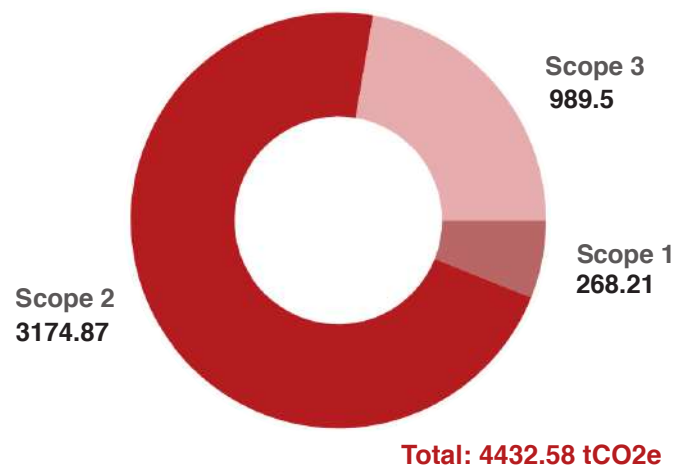
| Typology  | 2019-2020 Emissions | 2024-2025 Emissions |
|---|---------------------|---------------------|
| <b>SCOPE 1</b>                                      |                     |                     |
| Stationary Combustion                               | 150.11              | 246.40              |
| Mobile Combustion                                   | 43.43               | 31.61               |
| Mobile Combustion                                   | 43.43               | 31.61               |
| Fugitive Emissions                                  | 74.39               | 85.55               |
| Process Emissions                                   | 0.27                | 0.05                |
| <b>Scope 1 Emission in tCO<sub>2</sub>e</b>         | <b>268.21</b>       | <b>363.60</b>       |
| <b>Scope 1 Per Capita Emissions in tCo2e/capita</b> | <b>0.18</b>         | <b>0.20</b>         |
| <b>SCOPE 2</b>                                      |                     |                     |
| Energy - Grid                                       | 3174.87             | 2579.50             |
| <b>Scope 2 Emission in tCO<sub>2</sub>e</b>         | <b>3174.87</b>      | <b>2579.50</b>      |
| <b>Scope 2 Per Capita Emissions in tCo2e/capita</b> | <b>2.10</b>         | <b>1.42</b>         |
| <b>SCOPE 3</b>                                      |                     |                     |
| Purchased Goods and Services                        | 583.72              | 540.20              |
| Capital Goods                                       | 48.58               | 58.30               |
| Waste Management                                    | 126.95              | 88.88               |
| Outbound Travel                                     | 230.25              | 371.65              |
| <b>Scope 3 Emission in tCO<sub>2</sub>e</b>         | <b>989.50</b>       | <b>1059.03</b>      |
| <b>Scope 3 Per Capita Emissions in tCo2e/capita</b> | <b>0.66</b>         | <b>0.58</b>         |

| Data   | 2019-2020 Emissions | 2024-2025 Emissions |
|--|---------------------|---------------------|
| <b>Total IIMB Campus Emissions in tCo2e/year</b> | <b>4432.58</b>      | <b>4002.13</b>      |
| <b>Campus Population (nos.)</b>                  | <b>1510</b>         | <b>1812</b>         |
| <b>Per capita Emissions in tCo2e/capita</b>      | <b>2.94</b>         | <b>2.21</b>         |
| Process Emissions                                | 0.27                | 0.05                |
| Built-up Area sqm                                | 54000.00            | 54000.00            |
| Per sqm Emissions in tCo2e                       | 0.082               | 0.074               |

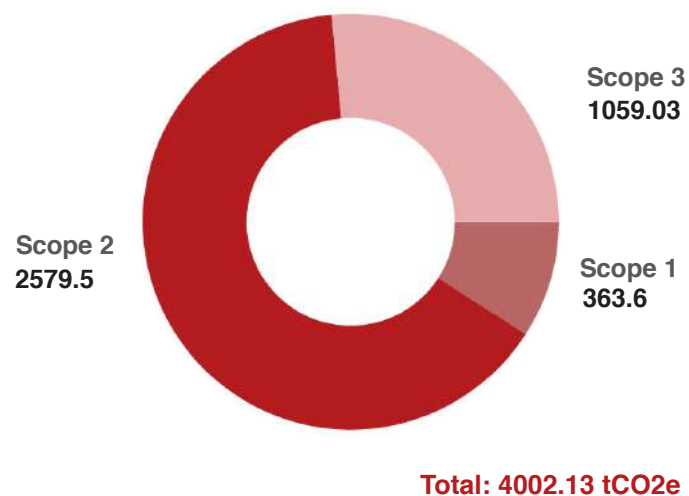


## YOY Reduction Summary:

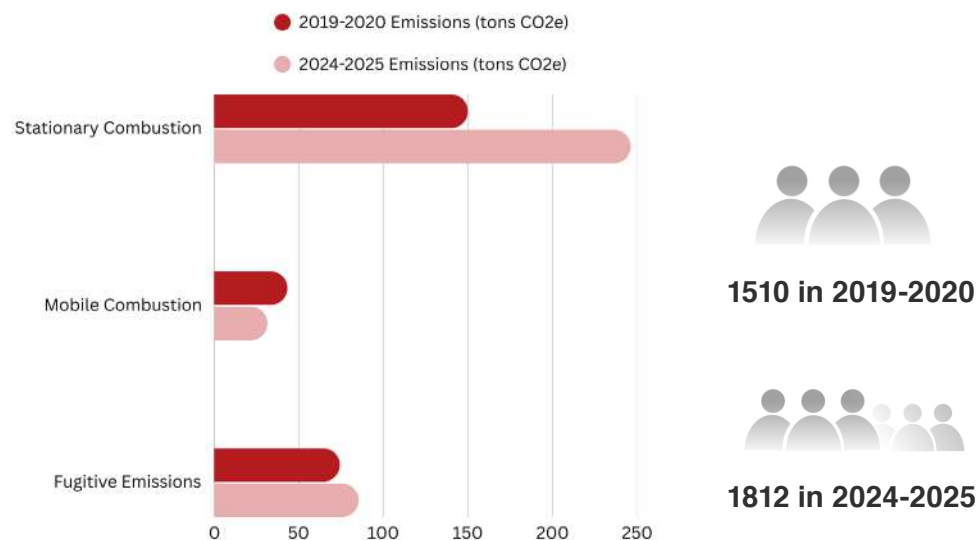
### 2019-2020 Emissions (tons CO2e)



### 2024-2025 Emissions (tons CO2e)



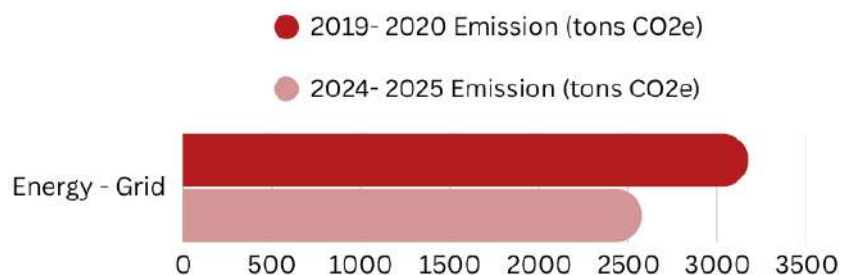
## Scope 1 Emissions



| Typology                         | 2019-2020 Emissions | 2024-2025 Emissions |
|----------------------------------|---------------------|---------------------|
| <b>SCOPE 1</b>                   |                     |                     |
| Stationary Combustion            | 150.11              | 246.40              |
| Mobile Combustion                | 43.43               | 31.61               |
| Fugitive Emissions               | 74.39               | 85.55               |
| Process Emissions                | 0.27                | 0.05                |
| <b>Scope 1 Emission in tCO2e</b> | <b>268.21</b>       | <b>363.60</b>       |



## Scope 2 Emissions



| Typology                  | 2019-2020 Emissions | 2024-2025 Emissions |
|---------------------------|---------------------|---------------------|
| SCOPE 2 - Energy Grid     |                     |                     |
| Scope 2 Emission in tCO2e | 3174.87             | 2579.50             |

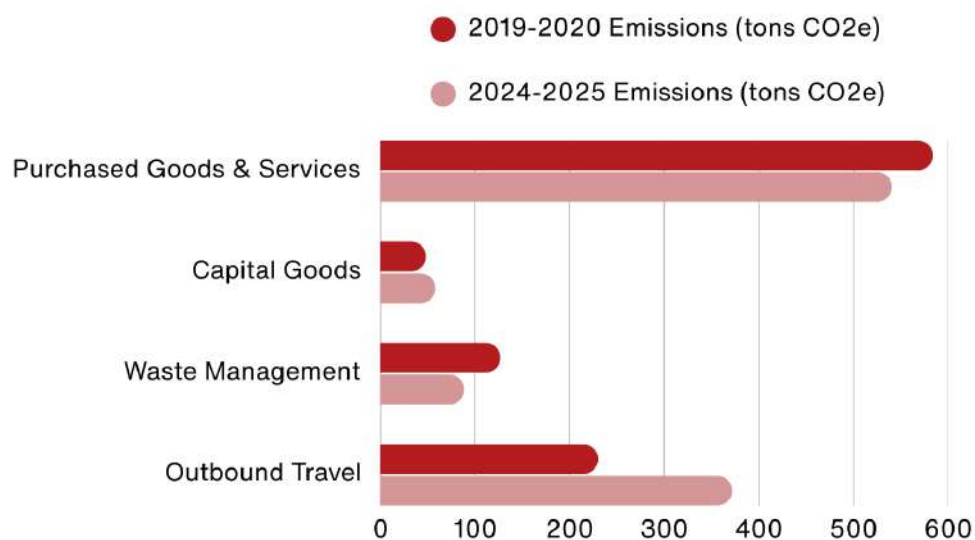


1510 in 2019-2020



1812 in 2024-2025

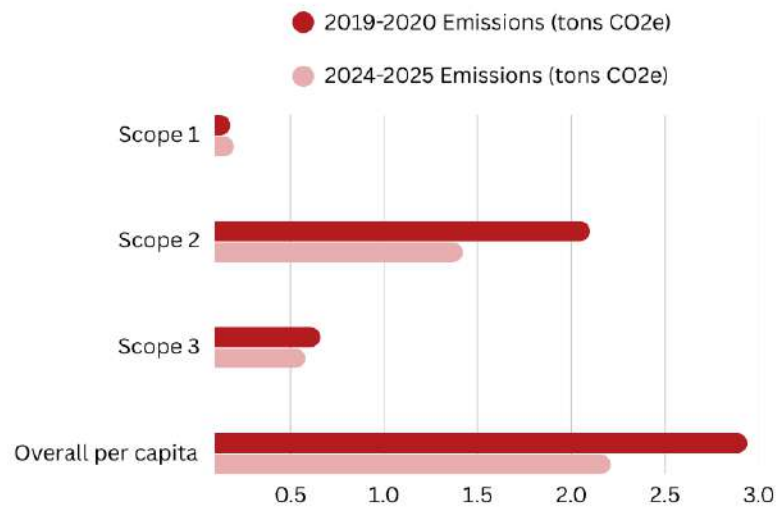
## Scope 3 Emissions



| Typology                     | 2019-2020 Emissions | 2024-2025 Emissions |
|------------------------------|---------------------|---------------------|
| SCOPE 3                      |                     |                     |
| Purchased Goods and Services | 583.72              | 540.20              |
| Capital Goods                | 48.58               | 58.30               |
| Waste Management             | 126.95              | 88.88               |
| Outbound Travel              | 230.25              | 371.65              |
| Scope 3 Emission in tCO2e    | 989.50              | 1059.03             |



## Per Capita Emissions



| Scope   | 2019-2020 Emissions | 2024-2025 Emissions |
|---|---------------------|---------------------|
| Total IIMB Campus Emissions in tCo <sub>2</sub> e/year    | 4432.58             | 4002.13             |
| Campus Population (nos.)                                  | 1510                | 1812                |
| Scope 1 Per Capita Emissions in tCo <sub>2</sub> e/capita | 0.18                | 0.20                |
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| Scope 3 Per Capita Emissions in tCo <sub>2</sub> e/capita | 0.66                | 0.58                |
| Total Per Capita  | 2.94                | 2.21                |

*IIMB has achieved a 10% overall reduction in carbon emissions and a remarkable 25% decrease in per capita emissions, reflecting its commitment to sustainable operations.*





# Energy Conservation

At Indian Institute of Management Bangalore (IIMB), sustainability is deeply embedded in the institution's core values and daily operations. Committed to minimizing its environmental impact, the campus has undertaken a forward-thinking journey focused on energy conservation and climate responsibility.





# Energy Conservation

**CFL to LED Upgrade:**

IIMB has successfully replaced conventional CFL lighting with energy-efficient LED fixtures across the campus, reducing electricity consumption and maintenance frequency while improving lighting quality.

**Sensor-based Outdoor Lighting:**

The campus has implemented motion and light sensors for outdoor lighting, ensuring lights operate only when required, significantly cutting down nighttime energy use.

**Refrigerant Transition (R22 to R32):**

In line with environmental commitments,

IIMB is phasing out R22 refrigerants and replacing them with R32, which has a lower global warming potential and improves energy efficiency in cooling systems.

**Enhanced Operational Efficiency:**

Energy conservation measures have not only lowered operational costs but also enhanced overall system performance across lighting and HVAC infrastructure.

**Alignment with Global Protocols:**

These initiatives support compliance with international agreements like the Montreal Protocol and reinforce IIMB's leadership in campus sustainability.

| Energy in kWh      | 2019-2020 | 2024-2025 |
|--------------------|-----------|-----------|
| BESCOM Grid Supply | 39,68,587 | 35,82,635 |
| Solar Energy       | 4,61,148  | 4,93,715  |





# Integrated Water Resource Management

Reducing Demand | Enhancing Recharge | Reusing Intelligently

IIM Bangalore's water management strategy integrates natural systems with engineered solutions. By aligning rainwater harvesting, treated wastewater reuse, and groundwater recharge, the campus has effectively built water circularity at scale. Simultaneously, by tracking Scope 3 emissions related to external supply, the institute brings a climate lens to its water footprint.

This approach reduces operational risk, enhances water security, and demonstrates how academic campuses can lead in low-carbon, low-dependency resource management.



## Conserve

- Deployment of low-flow infrastructure including sensor taps, foot-pedal systems, aerators, water-saving flush bags, and bio-blocks significantly reduces water use at the point of consumption
- These measures collectively save approximately **1 million liters** of water annually, without compromising functionality
- Carbon-linked water accounting estimates **22.17 tCO<sub>2</sub>e** of emissions from BWSSB-supplied municipal water in **FY 2024–25**, reinforcing the importance of demand-side efficiency



## Reuse

- Integrated wastewater recycling through a **600 KLD** Sewage Treatment Plant (STP) with SBR technology ensures treatment and reuse of **200,000–250,000 liters/day**
- Treated water is fully reused for landscaping and flushing, with infrastructure designed to support zero-discharge operations
- Six revived borewells supply **15–20%** of the institute's domestic water needs, reducing dependency on municipal sources



## Harvest

- Comprehensive rooftop rainwater harvesting is implemented across academic blocks, with six sumps offering **~350,000 liters** of cumulative storage
- Surface runoff is captured through 75 recharge wells, facilitating **~1.43 million liters/year** of groundwater recharge
- Historic open wells and borewells have been integrated into the harvesting system to enhance aquifer regeneration



## Performance Snapshot

| Category                           | Metric/Outcome   |
|------------------------------------|--|
| Total BWSSB Water Used             | 148,804 KL (148.804 ML)  |
| Water-linked Emissions             | 22.17 tCO <sub>2</sub> e (based on DEFRA 2023 EF: 0.149 tCO <sub>2</sub> e/ML) |
| Treated Wastewater Reused          | 200–250 KL/day   |
| Recharge via Wells                 | ~1.43 million L/year   |
| Groundwater Table Recovery         | From 20 meters to 6.5 meters (2010–2019)                                       |
| Revived Borewells                  | 6 of 14 (now active)   |
| Water Saved via Efficiency Devices | ~1 million L/year  |



# Case Study

## Water Resilience through Rainwater Harvesting and Reuse

Indian Institute of Management Bangalore (IIMB), located on a 100-acre ecologically rich campus, is home to over 1,200 residential students, faculty and staff, and more than 20,000 trees spanning native, flowering, and fruit-bearing species. As campus operations and residential intake expanded over time, the administration recognized the strategic importance of making water access more resilient, efficient, and locally sourced.

Since 2010, IIMB has implemented a comprehensive water management strategy focused on four core areas:



Rainwater harvesting



Groundwater recharge



Wastewater treatment and reuse



Water-use efficiency

This integrated approach ensures not just water availability, but long-term sustainability rooted in circular resource use.

### 1. Rainwater Harvesting Infrastructure

Rainwater harvesting was rolled out through both rooftop collection systems and surface runoff harvesting.

#### Rooftop Harvesting:

- Installed across six major buildings (as of 2010)
- Water is routed to six sumps: five with 50,000 liters and one with 100,000 liters capacity
- Used for domestic non-potable purposes via overhead tank distribution
- All new buildings since 2010 have integrated rooftop harvesting by design

#### Runoff Harvesting and Recharge:

- 75 recharge wells (5 ft diameter × 30 ft depth) constructed along stormwater drains
- Collect ~1.43 million liters/year of rainwater for direct groundwater recharge
- Excess runoff from sumps is automatically directed to these wells during heavy rainfall

### 2. Open Well Revival and Local Reuse

IIMB retained three large open wells from the site's earlier agricultural layout (30 ft diameter × 50–70 ft depth). These were desilted and restored in 2010 and now:

- Receive rooftop runoff through passive gravity flow
- Support localized irrigation for garden and landscape zones
- Demonstrate successful reuse of pre-existing infrastructure in modern water systems



### 3. Groundwater Recharge Outcomes

**The recharge strategy has yielded measurable results:**

**Water table rise:** from ~20m pre-2010 to ~6.5m by 2019

**Borewell revival:** Six out of the 14 defunct borewells have naturally recharged and were fitted with new pumps. These now meet 15–20% of the institute's domestic water demand, reducing external dependency.

### 5. Water Efficiency Measures

IIMB complements supply-side solutions with demand-side interventions:

Foot-pedal washbasins, sensor-equipped taps, aerators, and bio-urinals are installed across academic and residential blocks.

These upgrades significantly reduce freshwater draw in high-use areas.

### 4. Wastewater Reuse via STP

A 600,000 L/day capacity Sewage Treatment Plant (STP) using Sequencing Batch Reactor (SBR) technology was commissioned, involving:

Strategic site planning and underground construction at 30 ft depth. Resilient execution despite seasonal flooding and cloudburst interruptions during construction.

**Impact:**

- Provides 200,000–250,000 L/day of treated water
- Fully meets the campus's gardening and landscape irrigation needs
- Reduces nutrient runoff and improves soil moisture retention

IIM Bangalore's water strategy demonstrates how institutions can achieve resource circularity, reduce long-term operational costs, and contribute meaningfully to groundwater restoration and climate resilience. The approach is not only infrastructure-driven but also deeply aligned with ecological principles, adaptive reuse, and systems thinking.





# Closing the Loop: Advancing Waste Circularity

IIM Bangalore continues to implement a multi-tiered waste strategy focused on diversion, reuse, responsible disposal, and material substitution. By combining traceable vendor

partnerships, decentralized composting, internal reuse programs, and sustainable procurement, the institute is working toward a low-waste, circular campus model.

| Waste Stream                      | Volume (kg) | End Use / Notes   |
|-----------------------------------|-------------|---|
| Kitchen & Biodegradable Waste     | 35,240      | Sent to biogas digesters and compost pits                               |
| Garden Waste                      | 11,716      | Mulched and used on campus  |
| Paper Waste                       | 20,156      | Segregated for recycling  |
| Plastic Waste                     | 4,171       | Recycled via CPCB-certified partner                                     |
| Processed Wood                    | 5,689       | Reused for minor infrastructure work                                    |
| Metal, Glass, Textile (Dry Waste) | 16,544      | Recovered and sent for recycling  |
| E-waste                           | 4,385       | Authorized vendor disposal  |
| Sanitary Pads (Recycled)          | 356.7       | 8,443 pads > 763.4 kg CO <sub>2</sub> e saved, 4,222 L landfill avoided |

Total Tracked Waste Managed FY 2024-2025: ~114,000 kg (114 tons)







**Paper Waste Avoided through Book Reuse**

This initiative reinforces academic circularity while reducing demand for virgin pulp.

| Metric                              | Value (FY 2024–25)        |
|-------------------------------------|---------------------------|
| Books reused                        | 311 units                 |
| Paper saved                         | 349.3 kg                  |
| Estimated CO <sub>2</sub> e avoided | 1,089 kgCO <sub>2</sub> e |

**Recycled Benches: Circular Procurement in Practice**

Procured from Saahas Zero Waste, these benches embody circular design using post-consumer plastic.

| Metric                    | FY 2024–25 |
|---------------------------|------------|
| Benches procured          | 3 units    |
| MLP plastic diverted      | 50 kg      |
| CO <sub>2</sub> e avoided | 360 kg     |

**Menstrual Waste Avoidance through Reusables**

This program not only reduces sanitary waste but also supports inclusive climate action.

| Metric                  | Value                             |
|-------------------------|-----------------------------------|
| Cups distributed        | 70                                |
| Disposable pads avoided | ~8,400/year                       |
| Sanitary waste avoided  | ~224 kg/year                      |
| Emissions avoided       | ~317 kgCO <sub>2</sub> e per year |

**Cumulative Climate Impact from Circular Actions**

| Initiative                                  | CO <sub>2</sub> e Avoided (kg)      |
|---|-------------------------------------|
| Sanitary pad recycling                      | 763.4                               |
| Menstrual cup adoption                      | ~1,100 (lifetime)                   |
| Recycled benches                            | 360                                 |
| Book reuse                                  | 1,089                               |
| Total CO <sub>2</sub> e Impact (FY 2024–25) | ~3,300 kg (~3.3 tCO <sub>2</sub> e) |



### Key Initiatives Implemented

- Color-coded bins across residential, academic, and admin blocks
- Monthly waste tracking by stream and partner reporting
- Vermicomposting pits for organic reuse
- E-waste and plastic disposal via CPCB-authorized vendors
- Circular procurement policy piloted through benches and internal reuse

### Looking Ahead

IIMB plans to further institutionalize waste reduction through:

- Waste tracking dashboards
- Low-carbon procurement policies
- Expanded partnerships for recycled material integration

These efforts reflect a broader vision of making waste circularity a visible and measurable pillar of IIMB's campus operations.







# Case Study

## Pads to Cups: A Transition Rooted in Choice, Cost, and Climate

### Context

While sustainability efforts at IIM Bangalore have traditionally focused on resource and infrastructure systems, the Sustainability Taskforce, led by Dr. Haritha Saranga, extended its scope to address a less visible but environmentally intensive stream of waste and emissions: disposable menstrual hygiene products.

Triggered by internal discussions with faculty and external advocates, the initiative focused on scaling access to reusable menstrual cups, a solution that drastically reduces lifecycle emissions, landfill waste, and recurring costs. A campus-wide awareness session was conducted, targeting both administrative staff and support workers.

### Barrier Identification and Intervention Design

Although the session saw immediate uptake among white-collar staff (with over 50 cups purchased on the spot), zero adoption among blue-collar women workers revealed an economic barrier—₹500 per cup was unaffordable as a single outlay, despite long-term savings.

A needs-assessment revealed that most workers already spent ₹100–₹150 per month on disposable sanitary pads, but a one-time capital cost, even if more sustainable, was not financially feasible.



### To address this, IIMB implemented a co-financed procurement model:

- **User contribution:** ₹100 per cup (equal to existing monthly spend)
- **Subsidy:** Remaining cost crowdfunded by faculty and staff volunteers
- **Distribution:** Managed on campus, paired with one-on-one follow-ups for adoption monitoring

The design choice to avoid free distribution was intentional to preserve perceived value, encourage active usage, and support long-term behavior change.

### Outcome and Adoption

- ~70 blue-collar women accessed the subsidized cup
- 100% reported usage post-distribution, with additional requests for daughters, daughters-in-law, sisters, and peers
- No reported abandonment or disuse over follow-up rounds
- Peer-to-peer recommendation played a key role in cascading adoption

This initiative demonstrates that low-cost, high-impact behavioral transitions are possible when economic design is matched with contextual trust-building.

### Environmental Impact Assessment

| Impact Category                               | Estimate per user/year     | Aggregate (70 users/year) |
|---|----------------------------|---------------------------|
| CO <sub>2</sub> e saved (vs. disposable pads) | ~5.3 kgCO <sub>2</sub> e   | ~371 kgCO <sub>2</sub> e  |
| Waste avoided                                 | ~3.2 kg of sanitary waste  | ~224 kg of sanitary waste |
| Resource replacement                          | ~240 pads/tampons per year | ~16,800 units replaced    |

The environmental gains multiply over the average 10-year lifespan of a menstrual cup, totaling **up to 53 kg CO<sub>2</sub>e and over 30 kg of plastic waste avoided per person.**

### Key Insights for Replication

- ₹100 co-payment model ensures both accessibility and accountability
- Behavioral change can be unlocked through credible peer-to-peer sessions
- Reusable menstrual products represent a significant and underleveraged ESG opportunity
- for institutions, with measurable Scope 3 emission reductions and landfill diversion potential
- DEI-aligned sustainability: This initiative advances gender equity, waste reduction, and public health simultaneously serving as a model for intersectional ESG action

This initiative is a compelling example of community-led sustainability: where awareness, affordability, and agency align. It affirms that impactful change does not always require infrastructure; it can begin with something as simple, and transformative, as a cup.





# Case Study

## Waste to Utility: Circular Procurement in Campus Infrastructure

In alignment with its commitment to environmental sustainability and circular economy practices, IIM Bangalore has partnered with Saahas Zero Waste, an IMS-certified social enterprise, to procure outdoor furniture made from post-consumer multi-layer plastic waste (MLP).

### The initiative addresses two key goals:

- Reduce campus dependence on virgin material-based furniture (wood, metal, MDF)
- Support responsible disposal and reuse of non-recyclable plastic

These benches, installed across campus common areas, serve as both functional infrastructure and visible demonstrations of circular material use. All units were manufactured using sustainable boards derived from MLP waste, processed through proprietary Saahas technology that avoids toxic additives and enhances durability. This impact is based on Saahas

Zero Waste's traceable processing and quantification methods, which align with lifecycle carbon accounting principles.

### Strategic Significance

- **Circular procurement in action:** This initiative aligns with IIMB's broader push toward ESG-aligned purchasing, where environmental externalities are embedded into procurement decisions
- **Localized value chains:** All benches were manufactured using regionally collected waste, supporting Bengaluru's waste diversion infrastructure and green jobs
- **Demonstration effect:** These installations serve as conversation starters and proof points for incorporating sustainability into capital and operational expenditure planning

### Implementation Summary

| Financial Year | Type of Furniture Procured                             | Quantity |
|----------------|--|----------|
| 2023–24        | Eco-friendly park bench + 5 outdoor discussion benches | 6 units  |
| 2024–25        | Eco-friendly park benches                              | 3 units  |

### Environmental Impact

Combined impact across two procurement cycles:

| Metric                              | FY 2023–24           | FY 2024–25          | Total                |
|-------------------------------------|----------------------|---------------------|----------------------|
| Plastic                             | 890 kg               | 50 kg               | 940 kg               |
| CO <sub>2</sub> e emissions avoided | 6.45 tons            | 0.36 tons           | 6.81 tons            |
| Energy saved                        | 66,771.95 MJ         | 3,751.23 MJ         | 70,523.18 MJ         |
| Water saved                         | 24.32 m <sup>3</sup> | 1.37 m <sup>3</sup> | 25.69 m <sup>3</sup> |
| Livelihoods supported               | 10+ individuals      | 5+ individuals      | 15+ people           |

IIM Bangalore's bench procurement initiative exemplifies how everyday operational decisions even at the scale of campus furniture can be embedded with sustainability principles. By diverting close to a metric ton of plastic from landfills and avoiding 6.81 tons of CO<sub>2</sub> emissions, the project highlights how institutional procurement can reinforce climate goals, local economy support, and circular material flows - all within routine infrastructure upgrades.





# Biodiversity and Green Landscape

## Urban Forest Ecology:

### Native and Adaptive Flora

The IIMB campus is a benchmark in urban ecological design, supporting a thriving and resilient plant ecosystem. Spread over 100 acres, the campus maintains a diverse green cover spanning ~62 acres, hosting more than 285 species of trees and over 200 plant species in total. This makes IIMB one of the most botanically diverse academic campuses in the country.

The green infrastructure has been developed using a layered ecological planting strategy, closely mimicking a tropical dry deciduous forest. This stratification supports habitat heterogeneity and maximizes ecosystem services such as carbon sequestration, air purification, and passive cooling.

## Key Species and Ecological Roles:

- **Rain Tree (*Albizia saman*):**  
Dominant canopy-forming species with broad crowns that significantly reduce ground temperatures and increase evapotranspiration. These trees act as microclimate regulators and support epiphytic life and nesting bird species.
- **Neem (*Azadirachta indica*):**  
A keystone native species valued for its drought tolerance and pest-repellent properties. It contributes to plant-pollinator diversity and soil health through allelopathic leaf litter.
- **Ficus spp. (*F. benghalensis*, *F. religiosa*):**  
Keystone fig species that provide year-round fruit for frugivores such as birds and bats. Their large canopies support multiple trophic interactions, including pollinators and insectivores.
- **Pongamia (*Pongamia pinnata*):**  
A nitrogen-fixing, semi-deciduous native tree widely used in roadside plantations. Enhances soil fertility while supporting insect biodiversity and providing shade.
- **Tabebuia spp. (*T. rosea*, *T. aurea*):**  
Seasonal bloomers critical for early spring nectar flow. These flowering trees attract bees and butterflies and are part of IIMB's strategy for year-round floral succession.
- **Kadamba (*Neolamarckia cadamba*):**  
Symbolic and ecological species planted around the amphitheatre, known for fast growth and capacity to sequester carbon. The tree's nectar-rich flowers support nocturnal pollinators.



### Ecological Contributions:

- **Total individual trees:** ~20,000
- **Tree species richness:** 285+
- **Flora species richness (incl. shrubs, climbers):** 200+
- **Microclimatic cooling:** Average 2–3°C lower than surrounding built-up areas
- **Habitat structure:** Multi-layered canopy with ground flora, climbers, shrubs, and emergent species

### Ecosystem Services:

- Urban heat island mitigation
- Air purification
- Pollinator and frugivore support
- Leaf litter-driven nutrient cycling

The campus horticulture and sustainability teams have maintained this diversity without synthetic pesticides or fertilizers.

Practices such as **leaf litter retention, organic composting, and low-irrigation native landscaping** ensure that the flora not only enhances aesthetics but functions as a self-sustaining urban ecosystem.

### Urban Wildlife Ecology: Faunal Diversity

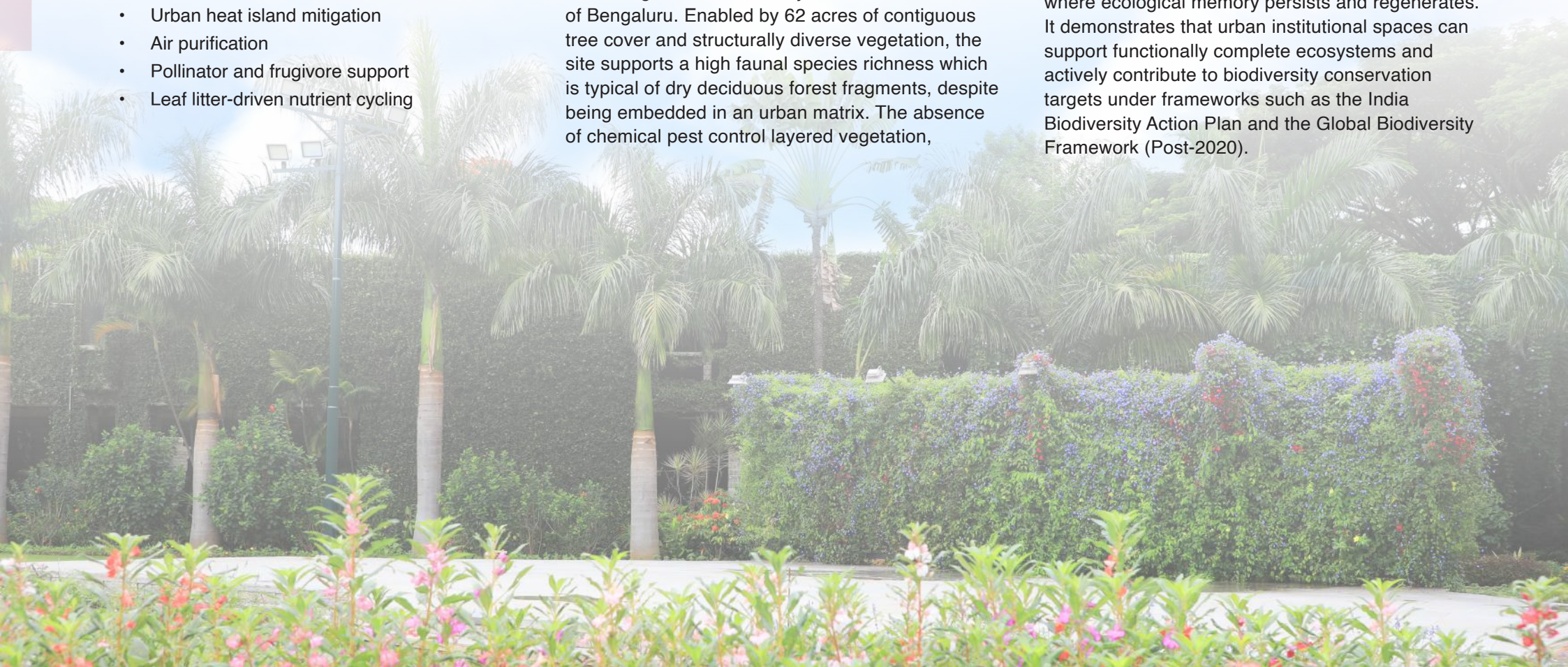
The IIM Bangalore campus functions as a self-sustaining urban biodiversity node within the heart of Bengaluru. Enabled by 62 acres of contiguous tree cover and structurally diverse vegetation, the site supports a high faunal species richness which is typical of dry deciduous forest fragments, despite being embedded in an urban matrix. The absence of chemical pest control layered vegetation,

perennial nectar sources, and wetland pockets fosters a stable trophic web.

This co-existence of wildlife within an institutional campus exemplifies principles of urban ecological resilience, where biodiversity thrives amid human-dominated landscapes.

### Urban Biodiversity Significance

The faunal richness at IIMB is not accidental but a result of intentional ecological design. The campus serves as a refugium in the urban fabric — a node where ecological memory persists and regenerates. It demonstrates that urban institutional spaces can support functionally complete ecosystems and actively contribute to biodiversity conservation targets under frameworks such as the India Biodiversity Action Plan and the Global Biodiversity Framework (Post-2020).





## Natural Carbon Sink Development:

At the IIMB campus, a total of 12,738 trees were surveyed and classified based on their girth at breast height (GBH), a standard indicator used to estimate tree age and biomass. Trees with larger girth are generally older and contribute more significantly to carbon sequestration, acting as long-term carbon sinks. This assessment helps understand the age distribution of the green cover, estimate the CO<sub>2</sub> absorption potential, and plan for future biodiversity and sustainability goals.

### Tree count

- Total Trees Assessed: 12,738
- Estimated Total CO<sub>2</sub> Sequestered: ≈13,892 tons

This estimate reflects the carbon sink potential from trees on campus based on their girth and age. The largest contributors to carbon sequestration are trees with GBH >150 cm, even though they are fewer in number.

| GBH Range (cm) | Approx. Tree Count | Approximate Tree Age | Age Category          |
|----------------|--------------------|----------------------|-----------------------|
| 30 – 60 cm     | 5,991              | 5 – 10 years         | Young Trees           |
| 60.1 – 90 cm   | 3,012              | 10 – 20 years        | Semi Mature Trees     |
| 90.1 – 120 cm  | 1,551              | 20 – 30 years        | Mature Trees          |
| 120.1 – 150 cm | 812                | 30 – 40 years        | Older Mature Trees    |
| 150.1 – 180 cm | 493                | 40 – 50 years        | Senescent Trees       |
| >180.1 cm      | 879                | >50 years            | Very Old Legacy Trees |

### Highlights

- Nearly 70% of the trees on campus are under 20 years of age, as part of recent afforestation efforts
- Around 17% fall in the mature to very old categories, which contribute most to carbon sequestration and biodiversity
- The presence of legacy trees (>50 years) indicates long-standing ecological heritage, offering both carbon and habitat benefits
- This diverse age structure ensures ecological resilience, with younger trees ready to replace older ones as they senesce

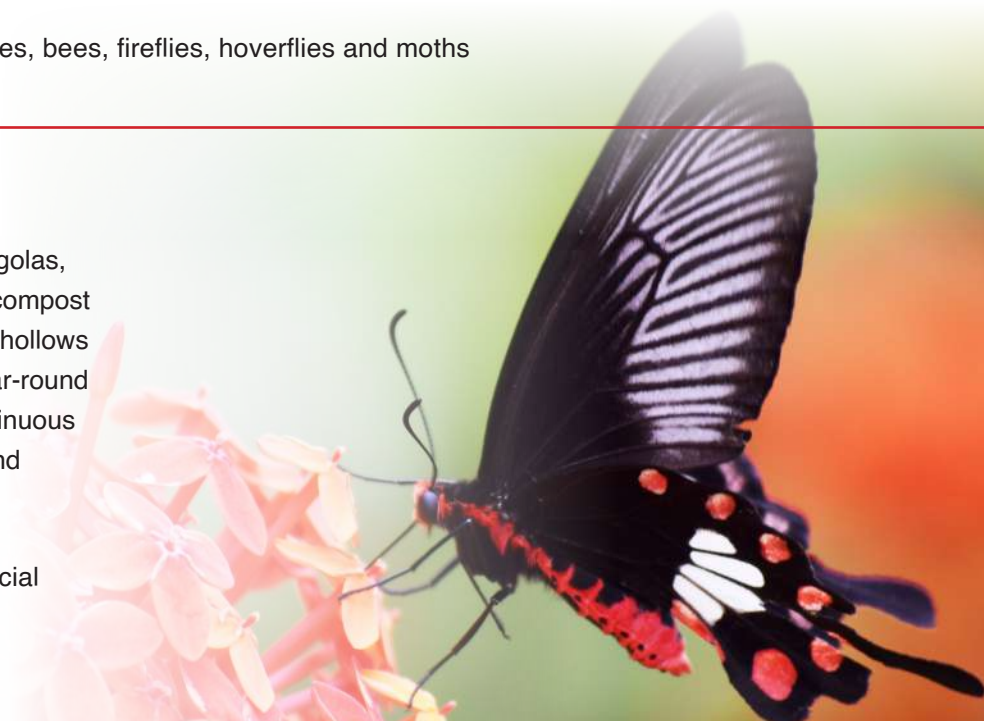


| Faunal Group        | Species Count                       | Ecological Notes   |
|---------------------|-------------------------------------|--|
| Birds               | 75+                                 | Includes residents, seasonal migrants and transitory visitors (approx. 20% of Bengaluru's recorded avifauna)               |
| Butterflies         | 25+                                 | Includes host-dependent and generalist nectarivores; multiple sightings of Blue Tiger, Common Jezebel and Emigrant species |
| Bats                | 4–5 species                         | Includes large frugivores (Indian Flying Fox) and microchiropterans (Pipistrelles)   |
| Mammals (small)     | 5–7 species                         | Squirrels, macaques (occasional), civets (rare) and rodents  |
| Reptiles            | ~10 species                         | Garden lizard, skinks, Bronzeback Tree Snake, Rat Snake and occasional Cobra   |
| Amphibians          | 6–8 species                         | Common Indian toads, bush frogs and puddle frogs (seasonal activity)   |
| Pollinators/Insects | >100 functional species (estimated) | Includes dragonflies, damselflies, bees, fireflies, hoverflies and moths   |

## Ecological Insights and Habitat Quality Indicators

- **Trophic complexity:** All major faunal guilds represented — herbivores, nectarivores, frugivores, insectivores, predators, decomposers
- **Habitat stratification:** Canopy (>15 m), mid-story (5–10 m), shrub layer (<2 m), ground cover, and aquatic edge zones
- **Microhabitat availability:** Pergolas, courtyards, leaf-litter patches, compost areas, flowering corridors, tree hollows
- **Phenological synchrony:** Year-round floral succession supports continuous feeding cycles for pollinators and frugivores

\*Reference - 'Exploring Nature: Flora and Fauna of IIM Bangalore' (2024) – the official biodiversity documentation released by IIMB as part of its Golden Jubilee.





# Community-led Ecological Stewardship

The biodiversity success of IIM Bangalore's campus is not the result of landscaping alone; it is deeply rooted in a culture of community-led ecological stewardship. Students, faculty, staff, and residents all contribute to protecting, documenting, and enhancing the campus's rich flora and fauna.

## Flora-related Involvement

### Tree Plantation Tradition:

New students, dignitaries, and graduating batches plant native or ecologically important species—such as Ficus, Pongamia, and Kadamba as part of campus milestones. This creates a sense of legacy and ecological continuity.

### Citizen Tree Mapping:

Students and staff have contributed to informal tree census and tagging efforts, helping to identify over 285 species and track survival rates of native reforestation efforts (e.g., post-2010 Subabul replacement drive).

### Composting and Leaf Litter Management:

Garden and maintenance staff, trained by the campus sustainability

team, manage 60-plus compost pits to turn green waste into nutrient-rich manure—used entirely within the campus for plant health and soil enrichment.

### Species Awareness:

Interpretive signage and plant identification boards across walking trails encourage self-guided learning about native flora and their ecological roles (e.g., pollinator support, medicinal value).

## Fauna-related Involvement

### Biodiversity Walks and Bird Counts:

Regular nature walks led by naturalists, alumni, or faculty, allow students and staff to observe, identify, and record sightings of birds (75+ species), butterflies (25+ species), bats, and reptiles.

Events like the annual winter bird survey help monitor migratory presence and habitat usage patterns.

### Pollinator Support through Gardening:

Community gardens and ornamental beds are designed with input from students and faculty to include nectar-rich plants and host plants for butterflies and bees (e.g., Hibiscus, Ixora, Tabebuia).

IIMB also maintains active bee colonies, involving the horticulture team in apiculture and pollination education.

### Faunal Sightings and Citizen Reporting:

Students and faculty contribute to a growing informal database of faunal sightings (e.g., Indian Pitta, peafowl, fireflies) via photographs, logbooks,

or group chats. These records aid conservation decisions and habitat interventions.

### Wildlife Sensitization:

Posters, mess-hall exhibits, and open lectures address peaceful coexistence with urban wildlife (e.g., not disturbing nesting birds, not feeding monkeys, or responding appropriately to snake sightings).

## Cultural Impact

Through these practices, biodiversity is not treated as a background feature but as a shared campus responsibility. The community sees itself as custodians of a living ecosystem contributing to monitoring, protection, and celebration of the flora and fauna that define IIMB's unique identity.





## Inclusive Impact through Education, Circular Economy and Community Development

IIM Bangalore's commitment to social responsibility is demonstrated through targeted initiatives that intersect education, sustainability, and community upliftment. These programs go beyond academic outreach, actively integrating environmental and social equity into tangible outcomes for underserved communities across Karnataka.

### 1. Project Saksham: Sustainable Support for Government Schools

**Partner:** Saahas Zero Waste

**Focus:** Circular economy, school infrastructure, waste-to-value

**In FY 2024–25, IIMB delivered:**

- 88 eco-friendly benches
- 50 computer tables
- 93 study desks
- 100 chairs

**Beneficiary Schools:** Government schools in Tiptur and Madhugiri taluks, Karnataka

**Material used:** Post-consumer multi-layer plastic waste (MLP) processed into durable furniture using proprietary upcycling technology

**Environmental Impact:**

- 3,200 kg of plastic diverted from landfills
- 23.2 tons of CO<sub>2</sub> emissions avoided
- 240,079 MJ of energy saved

- 87.47 m<sup>3</sup> of water conserved
- 20+ livelihoods supported through production and logistics

This initiative exemplifies IIMB's ability to embed sustainability within social outreach, reducing deforestation and plastic pollution while enhancing public education infrastructure.

### 2. Project WASH: Empowering Adolescent Girls in Rural Karnataka

**Focus:** Menstrual health awareness, sanitation equity, behavioral change. Implemented in government high schools across Madhugiri and Koratagere taluks.

**Covered over 700 adolescent girls through three-day interactive workshops on:**

- Menstrual hygiene and reproductive health
- Social stigma and taboo
- Clean water and sanitation practices (WASH)

Conducted by IIMB students, in partnership with local educators and medical professionals

The project addresses critical gender-based health disparities, building awareness, confidence, and dignity among rural adolescent girls. It aligns with SDG 6 (Clean Water and Sanitation) and SDG 5 (Gender Equality).



### 3. Grassroots Engagement through NSR Pre-doctoral Fellows and Student Clubs

IIMB students contribute to rural capacity building, including initiatives such as:

- Financial literacy workshops
- Digital learning support
- Case study development on social enterprise models

The IIMB Sustainability Taskforce Chairperson Prof. Haritha Saranga, under the banner: 'Mindful Consumption for a Sustainable Future', conducts awareness sessions regularly in schools which are in IIMB's neighboring areas, to promote sustainability amongst school children and their families.

#### Outcome

These programs underscore IIM Bangalore's approach to social responsibility:

Local in implementation, global in relevance, and systemic in impact—bridging sustainability, education, and equity in meaningful, measurable ways.





# Future Targets and Continuous Improvement

## Net-Zero Target and Roadmap

As part of its long-term sustainability roadmap, IIM Bangalore has established clear targets and operational boundaries for achieving Net-Zero emissions across Scope 1 and Scope 2 activities by the year 2035. The roadmap is guided by both physical limitations of the campus and national regulatory frameworks.

The institute aims to bridge a clean power shortfall of 2124 kWp to meet its net-zero energy objectives over the planning horizon of 2025 to 2035.

### Scope 1 Reality

Scope 1 emissions, primarily from institute-owned vehicles, LPG usage, and diesel generators, are projected to reduce by a maximum of 18%, due to inherent limitations in available decarbonization pathways.

### Key Constraints

The institute's decarbonization efforts are shaped by the following constraints:

- Lack of spare land for setting up utility-scale solar farms
- Ineligibility for external land acquisition or leasing for energy projects
- Restrictions imposed by national policy on engaging in third-party Power Purchase Agreements (PPAs), typical for government institutions

### Planning Assumptions

To realistically plan for emissions reductions, the following assumptions are incorporated:

- Grid electricity consumption is expected to increase at a rate of 2% annually, reflecting anticipated growth in campus operations
- The carbon intensity of the grid is projected to decrease by approximately 4% annually, as per the CEA's Optimal Mix 2030 outlook
- A Scope 2 emissions reduction policy will be enacted, targeting a 16% year-on-year reduction starting from 2025, primarily achieved through renewable energy sourcing
- On-campus solar energy expansion is limited by regulatory constraints, restricting rooftop and façade-mounted PV systems to  $\leq 1$  MW per HT connection, due to net-metering caps





## Predictive Energy Snapshot

| Net Zero emission Scope 2 target |                                       |                                   |                 |   |                    |  |
|----------------------------------|---------------------------------------|-----------------------------------|-----------------|---|--------------------|--|
| Year                             | Net Equivalent scope 1 emission (kWh) | Renewable energy production (kWh) | Shortfall (kWh) | Solar PV Capacity required to neutralize scope 1 emission (kWp) | Total capacity kWp | Total capacity kWp - to be added year on year - distributed across 6 years kWp |
| 2025                             | 35,82,635                             | 4,81,800                          | 31,00,835       | 2123.86   | 2453.86            | 400  |
| 2026                             | 36,54,288                             | 35,82,635                         | 71,653          | 49.08   | 2502.94            | 400  |
| 2027                             | 37,27,374                             | 36,54,288                         | 73,086          | 50.06   | 2553               | 400  |
| 2028                             | 38,01,921                             | 37,27,374                         | 74,547          | 51.06   | 2604.06            | 400  |
| 2029                             | 38,77,959                             | 38,01,921                         | 76,038          | 52.08   | 2656.14            | 400  |
| 2030                             | 39,55,518                             | 38,77,959                         | 77,559          | 53.12   | 2709.26            | 400  |
| 2031                             | 40,34,629                             | 39,55,518                         | 79,111          | 54.19   | 2763.44            | 54.19  |
| 2032                             | 41,15,322                             | 40,34,629                         | 80,693          | 55.27   | 2818.71            | 55.27  |
| 2033                             | 41,97,628                             | 41,15,322                         | 82,306          | 56.37   | 2875.09            | 56.37  |
| 2034                             | 42,81,580                             | 41,97,628                         | 83,952          | 57.5  | 2932.59            | 57.5   |
| 2035                             | 43,67,212                             | 42,81,580                         | 85,632          | 58.65   | 2991.24            | 58.65  |
| Current shortfall to cover       |                                       |                                   |                 | 2123.86 kWp   |                    |  |

### Combined Net Zero Integration Strategy

With no land and no third-party PPA, we neutralize Scope 2 by layering BESCOM Green-Tariff supply, daily GDAM green blocks, and retired I-RECs; Scope 1 falls only modestly, so our verified campus afforestation absorbs the small residual — keeping offsets below 10% of the total footprint by 2035.

Key emitters: diesel/LPG vehicles, kitchen LPG, backup gensets, grid electricity



| Year | Scope 1 Emission-Reduction Target | Key Scope 1 Measures   | On-campus PV/ façade capacity (kWp)   | Share of total kWh now covered by renewables | Procurement / Instrument 2025  |
|------|-----------------------------------|--|---------------------------------------|--|--|
| 2025 | –10% (EV pilot done)              | <ul style="list-style-type: none"> <li>• EV pilot (10% of fleet) - most used vehicles</li> <li>• Induction-cooking pilot (1 hostel)</li> <li>• Phase-1 (2025-27): 10 ha on under-utilized campus fringe + 10 ha partner plot with Karnataka Forest Dept. (including new campus)</li> </ul> | 730<br>(330kWp existing + 400kWp new) | 26%  | None this year — afforestation credits still maturing                    |
| 2026 | –10% (held)                       | <ul style="list-style-type: none"> <li>• Fleet 15% EV</li> <li>• LPG ↓ 15% (expand induction)</li> <li>• Afforestation Phase-1 continuation</li> </ul>   | 1130                                  | 40%  | credits accruing   |
| 2027 | –11%                              | <ul style="list-style-type: none"> <li>• Fleet 20% EV</li> <li>• Kitchen 35% induction</li> <li>• Afforestation Phase-2: plant 20 ha on new campus; start MRV plots</li> </ul>   | 1530                                  | 53%  | credits accruing   |
| 2028 | –12%                              | <ul style="list-style-type: none"> <li>• Fleet 25% EV</li> <li>• Retire 1 diesel genset</li> <li>• Afforestation maintenance (survival audits; gap-filling)</li> </ul>   | 1930                                  | 66%  | credits accruing   |
| 2029 | –13%                              | <ul style="list-style-type: none"> <li>• Fleet 30% EV</li> <li>• Kitchens 60% induction</li> <li>• Afforestation credits (~250 tCO<sub>2</sub> / yr†) retired against residual Scope 1</li> </ul>  | 2330                                  | 80%  | credits accruing   |
| 2030 | –15%                              | <ul style="list-style-type: none"> <li>• Fleet 35% EV</li> <li>• Kitchens 80% induction</li> <li>• Bio-CNG pilot</li> </ul>  | ≈ 2730                                | 100%   | Retire ~ 250 tCO <sub>2</sub> of institute afforestation credits         |
| 2035 | –18% cap                          | <ul style="list-style-type: none"> <li>• Fleet 50% EV</li> <li>• Kitchens 100% induction</li> <li>• Gensets on bio-CNG</li> </ul>  | 2800 – 3000                           | 100%   | Steady-state removals ~ 300 tCO <sub>2</sub> / yr; 20% buffer un-retired |



# Net-Zero Target Plans

## Short-term Plan (2025–2027)

- Replace diesel/petrol vehicles with EVs
- Launch a pilot electric bus service
- Install 5–8 EV charging stations across campus
- Expand rooftop solar capacity to 1.5 MWp
- Implement net-metering for solar systems
- Deploy energy monitoring systems to track and optimize usage

## Long-term Plan (2027–2035)

- Adopt smart EV fleet management through centralized telematics
- Power EVs with on-site solar for zero-carbon mobility
- Promote shared electric mobility for staff and students
- Install battery storage to use and export renewable energy
- Secure green power through verified long-term PPAs for residual needs



NET ZERO  
2035



# Sustainability Maturity Assessment Against UNEP SUF

IIM Bangalore has systematically evaluated its FY 2024–25 environmental performance against the six pillars of the UNEP Sustainable University Framework (SUF). Anchored in the UNEP 'Greening Universities Toolkit,' each pillar—Energy, Water, Biodiversity, Climate, Travel, and Materials

is rated on a four-level maturity scale: Emerging, Progressing, Established, and Leading. This clear, data-driven self-assessment not only underscores our current achievements but also pinpoints strategic opportunities, guiding our journey toward best-in-class sustainability.

| Pillar                          | Key Initiatives   | Score | Indicator |
|---------------------------------|---|-------|-----------|
| Energy                          | Campus-wide LED retrofit (all academic & residential blocks)<br>Periodic energy audits by Facilities<br>Pilot rollout of motion-sensor lighting in common areas | 2     | ★ ★ ☆ ☆   |
| Water                           | Six rooftop sumps (350 kL) + 75 recharge wells (1.43 ML/yr)   | 3     | ★ ★ ★ ☆   |
| Biodiversity                    | 285 tree species; 20 000+ trees<br>Native butterfly garden & beekeeping guided campus biodiversity walks  | 3     | ★ ★ ★ ☆   |
| Climate Mitigation & Adaptation | Net-Zero targets (Scope 1 by 2030; Scope 2 by 2035) Annual Scope 1–3 carbon audit and climate-risk screening for new buildings                                  | 4     | ★ ★ ★ ★   |
| Travel                          | On-campus housing avoids ~22 t CO <sub>2</sub> e/yr from commuting, employee-commute survey baseline<br>EV shuttle pilot videoconference policy                 | 2     | ★ ★ ☆ ☆   |
| Materials & Construction        | Institutional circular procurement policy (e.g., recycled benches)<br>30% recycled-content targets under review<br>Wood reuse in minor works                    | 2     | ★ ★ ☆ ☆   |

## Legend & Notes

Scores: 1 Emerging | 2 Progressing | 3 Established | 4 Leading

Indicator: ★ = achieved level; ☆ = remaining level

Data period: FY 2024–25 (Apr 2024–Mar 2025)

Scoring method: Self-assessment against UNEP SUF indicators

(see 'Greening Universities Toolkit,' Annex A)

Emission factors: DEFRA 2023 for water & waste;

India CEA 2022–23 grid factor; IPCC AR6 for fuels

Boundary: Bannerghatta Road campus (residential, academic, administrative operations)





## References

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- <https://www.iimb.ac.in/node/13914>
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- <https://www.youtube.com/watch?v=JYMmyBNTGVA&t=280s>
- Intergovernmental Panel on Climate Change (IPCC). (2006). IPCC Guidelines for National Greenhouse Gas Inventories.
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# ANNEXURE



## INDEPENDENT PRACTITIONER'S LIMITED ASSURANCE REPORT ON INDIAN INSTITUTE OF MANAGEMENT BANGALORE (IIMB) GREENHOUSE GAS (GHG) STATEMENT

To  
**The Management**  
Indian Institute of Management Bangalore (IIMB)

### Purpose of Engagement

IIMB engaged us to provide limited assurance on its consolidated greenhouse-gas (GHG) disclosure for FY 2024-25. Our objective was to state whether the reported totals are free from material misstatement, applying the criteria set out in IIMB's GHG-accounting protocol and the GHG Protocol Corporate Standard.

### Report on GHG Statement

We have undertaken a limited assurance engagement of the accompanying GHG statement of IIMB for the year ended March 31, 2025, comprising the consolidated greenhouse-gas (GHG) disclosures and Emissions Inventory. This engagement was conducted by a multidisciplinary team including subject matter experts and engineers from Earthonomic Engineers Private Limited and Nirvaaha Consulting LLP.

### Responsibilities

Management prepared the inventory, selected emission factors and maintained the supporting evidence. Our responsibility was to express a limited-assurance conclusion in line with ISO 14064-3:2019 and the fundamental principles of ISAE 3000 (Revised). A limited engagement provides less assurance than a reasonable-assurance (audit-level) engagement; we therefore used risk-based sampling rather than exhaustive testing.

### Inherent Limitations

- Emissions are based on management-provided data and estimates.
- Emission factors and activity data carry uncertainties.
- Limited assurance scope may not detect all material misstatements.

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### Our Independence and Quality Control

We have complied with the independence and other ethical requirements of the Code of Ethics issued by the Institute of Chartered Accountants of India that is consistent with the requirements of the International Ethics Standards Board of Accountants, International code of Ethics for professional Accountants (Including International Independence Standards) (IESBA Code), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

Our firm applies Standard on Quality Control (SQC) 1,33 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

### Institution's Responsibility

The Indian Institute of Management Bangalore (IIMB) is responsible for the preparation and fair presentation of the GHG Statement for the period 1 April 2024 to 31 March 2025. This includes:

- Selection and consistent application of appropriate GHG quantification methodologies;
- Preparation, aggregation, and reporting of relevant activity data across Scope 1 (Direct), Scope 2 (Indirect from purchased electricity), and selected Scope 3 (Other Indirect) categories;
- Maintenance of supporting documentation and implementation of internal controls to ensure data reliability and completeness.

### Assurance Practitioner's Responsibility

Our responsibility in this limited assurance engagement was to express a conclusion on whether the Greenhouse Gas (GHG) Statement of the Indian Institute of Management Bangalore (IIMB) for the reporting period from April 1, 2024, to March 31, 2025, is fairly presented and free from material misstatement. This engagement was conducted in accordance with the principles outlined in ISO 14064-1:2018, which provides guidance for quantifying and reporting GHG emissions and removals at the organizational level.

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We conducted the engagement using a risk-based sampling approach appropriate for a limited assurance level. A detailed description of procedures, including interviews, documentation review, and analytical methods, is provided in the "Procedures Performed" section.

This engagement did not involve the same level of detail as a reasonable assurance audit, and the evidence obtained is inherently limited. Therefore, while we are confident that no material misstatements were identified, our conclusion is based on a limited level of assurance. Nonetheless, the findings provide reasonable confidence that IIMB's GHG Statement has been prepared in a manner consistent with its stated protocols and applicable standards.

#### Standards and Criteria

We conducted our work in accordance with internationally accepted limited assurance engagements guidance, and evaluated IIMB's GHG reporting against:

- **ISO 14064-1:2018** — Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals.
- IIMB's internal GHG accounting and reporting protocols, as disclosed in the 2024–25 GHG report.

#### **Procedures Performed and boundaries**

We carried out the following procedures for the reporting period:

##### **1. Planning & Risk Assessment**

Obtained an understanding of IIMB's GHG framework and controls;  
Identified potential risk areas and unusual variances.

##### **2. Data-Collection Review**

Inspected source documents: fuel logs, travel records, procurement data;  
Verified completeness of data reconciliation from sites to central register.

##### **3. Methodology & Emission Factors**

Checked alignment of emission factors to nationally recognized sources (e.g., Central Electricity Authority, DEFRA, IPCC default fuels);  
Reviewed any custom factors for refrigerants and diesel consumption.

##### **4. Analytical Procedures**

Trended energy and fuel use, normalizing for campus-size changes or activity levels;Benchmarked emissions intensity (tCO<sub>2</sub>e/student and tCO<sub>2</sub>e/m<sup>2</sup>) against peer institutions.

##### **5. Comparative Review**

Compared 2019–20 and 2024–25 aggregate and per-scope emissions to identify drivers of change; Followed up on significant variances with management explanations and supporting evidence.

#### **Boundaries:**

| Scope    | Categories Included             |
|----------|---------------------------------|
| <b>1</b> | Stationary combustion           |
|          | Mobile combustion               |
|          | Fugitive emissions              |
| <b>2</b> | Purchased electricity           |
| <b>3</b> | Purchased goods and services    |
|          | Capital goods                   |
|          | Waste generated in operations   |
|          | Business travel                 |
|          | Employee commute                |
|          | Students commute                |
|          | Transportation and distribution |



### Limited Assurance Conclusion

Based on the procedures we have performed and the evidence we have obtained and subject to the inherent limitations outlined in this report, nothing has come to our attention that causes us to believe that the IIMB's GHG statement for the year ended March 31, 2025 is not prepared, in all material respects, in accordance with the reporting criteria.

### **Completeness and Accuracy**

- **Data Completeness:** We are satisfied that >98% of fuel, electricity and travel data were captured.
- **Emission Factor Application:** Correct factors were applied consistently; only minor rounding differences noted.

### **Boundary Consistency**

- No unreported sources were identified.
- In 2024-25, IIMB extended Scope 3 to include capital goods—the retrospective inclusion for 2019-20 was confirmed for comparability.

| Scope        | 2019-20<br>Emissions(tCO <sub>2</sub> e) | 2024-25 Emissions(tCO <sub>2</sub> e) |
|--------------|--|---------------------------------------|
| Scope 1      | 268.21                                   | 363.60                                |
| Scope 2      | 3174.87                                  | 2579.50                               |
| Scope 3      | 989.50                                   | 1059.03                               |
| <b>Total</b> | <b>4432.58</b>                           | <b>4002.13</b>                        |

### **Restriction on Use**

This assurance report has been prepared solely for the use of the management of Indian Institute of Management, Bangalore and for disclosure in its sustainability or regulatory submissions and should not be distributed to or relied upon by any other parties without our prior written consent.

For Raja and Kumar  
 Chartered Accountants  
 Firm Reg No: 007472S



V Chandrasekaran  
 Partner  
 Membership No. 024923  
 UDIN: 25024923BMOYTC8670x  
 Place: Chennai  
 Date: 25-May-2025



