

# **SUSTAINABILITY DEVELOPMENT REPORT 2022-23**

## **SDG15: Life on Land**

## ***Executive Summary***

IEM Kolkata's Sustainability Development Report for SDG 15 (Life on Land) 2022-23 highlights institutional commitment to biodiversity conservation through expanded green campus areas covering 3,173 sq.m (26% of 12,141 sq.m total), community plantations, and pet society initiatives supporting 150 stray animals. Key achievements include environmental audits, e-waste recycling of 1,752.6 kg, student engagement of 5,489 participants in extension programs, Rs. 267.30 lakhs in seed grants for research, and 620 Scopus-indexed publications on sustainability. Academic integration features mandatory environmental courses across 100 UG programs, alongside 3,214 collaborative activities and 79 PhD registrations in conservation.

# ***Contents***

<b>Section</b>	<b>Page</b>
Vision, Mission, and Strategic Objectives	1
Green Campus and Biodiversity	1
Environmental Management	1
Student and Community Engagement	2
Academic and Research Integration	2
Data and Metrics	2
Challenges, Institutional Responses, and Mitigation Strategies	3
Future Roadmap and Strategic Plan	4
Conclusion	4
Photo Gallery	5

# ***Vision, Mission, and Strategic Objectives***

## **Institutional Vision**

To serve as a leader in outcome-based education with environmental stewardship and biodiversity enhancement at the fore.

## **Institutional Mission**

Integrate biodiversity conservation within curriculum, research, and community engagement, and empower students with practical knowledge and sustainable values.

## **Strategic Objectives for 2022-23**

- Expand green campus development and measurable biodiversity indicators.
- Integrate sustainability and conservation throughout curriculum.
- Conduct advanced research on ecosystem management, conservation, and land protection.
- Engage students and faculty in environmental outreach and conservation.
- Foster national and international partnerships to advance biodiversity protection.

## ***Green Campus and Biodiversity***

- **Green Area:** Campus covers 12,141.03 sq.m, with 3,173.03 sq.m (26%) classified as green area.
- **Community Plantations:** Events led by clubs and IWC, with 300+ saplings planted near water margins.
- **Pet Society:** Provided food and care for 150 stray animals, supporting urban biodiversity.

## ***Environmental Management***

- **Environmental Audits:** Conducted Green, Energy, and Environment Audits; awards for clean campus.

- **Waste Management:** Solid waste disposal by NKDA, e-waste recycling (1,752.60 kg in 2022-23 via Hulladek Recycling Pvt. Ltd.), utilization of treated wastewater for campus gardening.

## ***Student and Community Engagement***

- **Extension Programs:** 5,489 students participated in environmental protection, plantation, awareness, and outreach programs.
- **IWC Actions:** Inner Wheel Club organized plantation drives, educational events, and supported underprivileged children (over 480 beneficiaries in social-eco projects).
- **Collaborations:** 3,214 collaborative activities including faculty/student exchanges, internships, SDG-focused projects.

## ***Academic and Research Integration***

- **Environmental Studies:** Mandatory courses on environment, ecosystems, and conservation.
- **Sustainability in Curriculum:** SDGs embedded in field projects, case studies, and research assignments across disciplines.
- **Seed Grants:** Rs. 267.30 lakhs seed money for research, with multiple projects targeting biodiversity and conservation.
- **Research Output:** 1009 research papers in Scopus journals; 79 PhD registrations; 620+ Scopus-indexed publications in environment and sustainability.

## ***Data and Metrics***

<b>Performance Indicator</b>	<b>Achievement</b>
Green Campus Coverage	3,173.03 sq.m (26%)
Extension Program Students	5,489 participants
E-Waste Recycled	1,752.60 kg
Seed Grant Funding	Rs. 267.30 lakhs

Community Beneficiaries	480+ supported by IWC projects
Pet Society Animal Welfare	150 animals fed and cared for
Collaborative Activities	3,214 projects/exchanges/internships
Environmental Courses	100% UG programs
Conferences/Workshops	45+ international, 60 workshops inc. sustainability topics
PhD Student Registrations	79 new registrations in environment/conservation
Research Publications	1009 journal, 620+ Scopus-environment papers

For 2022-23, IEM Kolkata deepened its commitment to terrestrial conservation by expanding green spaces, launching targeted research, engaging thousands of students and stakeholders, and implementing impactful waste and biodiversity management programs.

## ***Challenges, Institutional Responses, and Mitigation Strategies***

- Challenge: Urban development pressure restricts the expansion and preservation of biodiversity on campus and surrounding areas.

Institutional Response: Develop model urban conservation strategies, including native species nurseries and green corridors to support biodiversity within urban settings.
- Challenge: Sustaining active student engagement in biodiversity conservation despite heavy academic workloads.

Institutional Response: Integrate conservation activities into credit-based curricula and internship programs to align academic goals with hands-on environmental stewardship.
- Challenge: Difficulty in achieving consistent and systematic measurement of campus biodiversity.

Institutional Response: Launch student-led biodiversity monitoring initiatives complemented by technology-enabled tools such as apps and GIS for accurate tracking and data collection.

- Challenge: Coordination and cooperation among multiple university departments and units on environmental efforts.

Institutional Response: Strengthen a centralized Sustainability Office empowered to facilitate cross-departmental collaboration and unified environmental action plans.

- Challenge: Balancing conservation goals with other institutional priorities and limited resources.

Institutional Response: Foster partnerships with local conservation groups and leverage external funding to enhance biodiversity conservation capacity and resources.

## ***Future Roadmap and Strategic Plan (2023-24 and Beyond)***

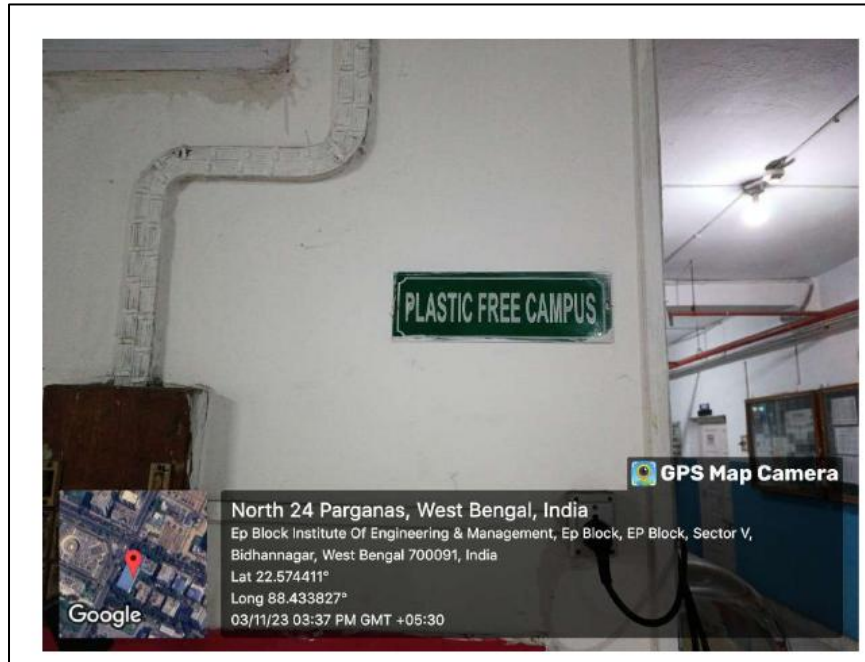
- Increase green area from 26% to 35% by 2027.
- Establish on-campus biodiversity nursery and pollinator gardens.
- Launch advanced research center for biodiversity/ecology.
- Expand environmental outreach to 10,000+ community members.
- Progress towards carbon-neutral campus (renewable energy adoption, afforestation).
- Move towards circular campus economy with zero waste to landfill by 2028.

## ***Conclusion***

In 2022-23, IEM Kolkata advanced SDG 15 by enhancing green infrastructure, fostering research outputs like 109 CARE journal papers, and engaging communities through Inner Wheel Club projects benefiting 480 individuals. Challenges such as urban pressures and resource constraints were met with strategies including native species nurseries, credit-based conservation curricula, GIS-enabled biodiversity monitoring, a centralized Sustainability Office, and external partnerships. The future roadmap targets 35% green coverage by 2027, on-campus biodiversity nurseries, a dedicated research center, outreach to 10,000 members, carbon-neutral progress via renewables and afforestation, and zero-waste goals by 2028. These efforts position the institute as a leader in outcome-based education with environmental stewardship.



## *Photo Gallery*

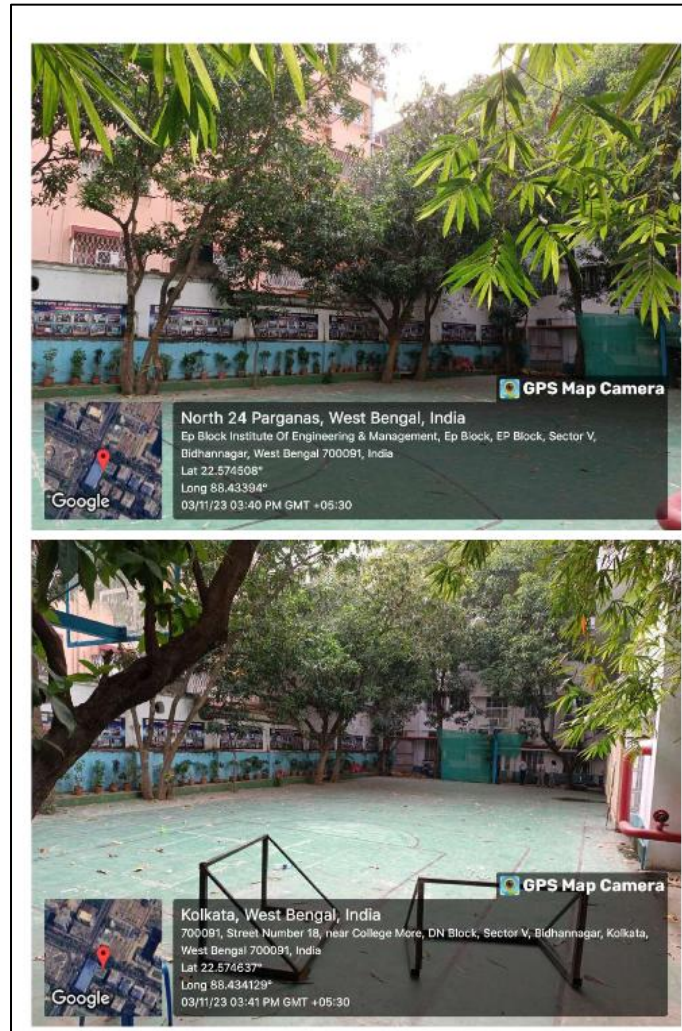


*The Institute of Engineering & Management (IEM) has taken a commendable stride towards environmental sustainability by transforming its campus into a plastic-free zone.*



*Disability friendly infrastructural changes to incorporate inclusivity*





*Green campus infrastructure*



*Green Campus Initiatives*