

**ENVIRONMENTAL SUSTAINABILITY REPORT  
INDIAN INSTITUTE OF MANAGEMENT LUCKNOW**

**Prepared by**

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**Executive Summary**



The Energy and Resources Institute

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- **Objective:** The assessment focuses on estimating resource footprints and greenhouse gas (GHG) emissions of both the campuses of the Indian Institute of Management Lucknow (IIML) located geographically at Lucknow and Noida in the state of Uttar Pradesh and covering an area of more than 200 acres and 20 acres respectively. The assessment additionally involves identification of opportunities for reducing ecological footprint for the year 2023, which is considered as the baseline year.
- **Methodology:** The exercise is based on a mixed method approach involving analysis of qualitative and quantitative data and information collected through questionnaire-based surveys; insights drawn from the secondary literature and supplemented with onsite assessment. The surveys and onsite assessment have been carried out by a team designated from The Energy and Resource Institute (TERI) in accordance with a broad guideline provided by the Centre for Business Sustainability at IIML.
- **Scope:** The scope includes – a) assessment of energy consumption and GHG emissions; b) inventorisation of carbon sink to assess the carbon sequestration potential; c) assessment of solid waste generation and utilization; d) water consumption and wastewater treatment and e) paper consumption f) biodiversity assessment. Given that this is a first of its kind endeavour towards baseline inventorisation of GHG emissions, in particular, the focus has been confined to Scope 1 and Scope 2 emissions to begin with. Furthermore, an exercise has been carried out to estimate the emissions avoided by the adoption of diverse mitigation measures by the institute such as making use of solar power generated within the campus from the rooftop solar panels and use of electric vehicles for transportation.
- **Findings (Campus-wise and Consolidated)**

***Estimate of Carbon Footprint:***

An estimate of Scope1 and Scope2 emission has been made. Scope 1 emission comprises of emissions from diesel, petrol and liquefied petroleum gas (LPG) consumption. Scope2 emission is based on electricity consumption.

**Lucknow Campus:**

*Scope 1:* 123 tCO<sub>2</sub> eq

*Scope 2:* 2,863 tCO<sub>2</sub> eq

*Total:* 2986 tCO<sub>2</sub> eq

**Noida Campus**

*Scope 1:* 42.83 tCO<sub>2</sub> eq

*Scope 2:* 2,143.35 tCO<sub>2</sub> eq

*Total:* 2186 tCO<sub>2</sub> eq

**Consolidated**

*Scope 1:* 166.09 tCO<sub>2</sub> eq

*Scope 2:* 5,006 tCO<sub>2</sub> eq

*Total:* 5,172 tCO<sub>2</sub>

- ***Carbon Sequestration Potential and Net GHG Emission***

The campus administration at both the campuses of IIML has prioritized native tree species in their plantation drives, promoting ecological balance and providing essential ecosystem services such as pollution control and groundwater recharge. Given their location in an industrial belt and a region with limited rainfall (average yearly rainfall < 1000 mm), the campuses play a critical role in maintaining the balance in the area ecosystem. The study estimates carbon sequestration potential based on the existing green cover in both the campuses as below-

Lucknow Campus: 158 tCO<sub>2</sub> eq; Noida Campus: 51.4 tCO<sub>2</sub> eq.

This resulted in a reduction of campus emissions by 5.3% and 2.3%, respectively, equating to 4% of the overall emissions.

**Consolidated Net GHG emissions for Lucknow and Noida Campus (after accounting for carbon sequestration): 4,963.34 tCO<sub>2</sub> eq.**

- ***Avoided Emissions through Renewable Energy Resources***

The Lucknow campus has embraced renewable energy sources by installing 400 KW **rooftop solar panels**, which generated 571,751 kWh of electricity in 2023, leading to reduction in fossil fuel-based electricity consumption from the grid and avoidance of 406 tCO<sub>2</sub> eq. GHG emissions. The Lucknow campus also operates two **electric golf carts** for transportation within the premises, contributing to sustainable mobility within the campus.

- ***Water Consumption***

Lucknow campus: 175,000 litres per day

Noida campus: 25,650 litres per day.

- ***Wastewater Treatment Capacity (litres/day)***

Lucknow Campus: 4,00,000 litres/day

Noida Campus: 1,20,000 litres/day

The treated water is used for application in horticulture, thereby avoiding additional dependence on groundwater or water supplied by the concerned parastatal agency.

- ***Groundwater Recharge***

The Lucknow campus of IIML takes pride in initiating ten artificial groundwater recharge pits with a combined capacity of 700 cubic meters, alongside two natural pits capable of storing 27,320 cubic meters of water, aiding in water conservation.

- ***Paper Consumption (annual)***

Lucknow Campus: 2,088,000 standard A4 sheets

Noida Campus: 450,000 standard A4 sheets

- ***Solid Waste Generation and Segregation (Annually and Monthly)***

Lucknow campus: 180 tons annually (equivalent to 15 tons per month)

Noida campus: 22 tons annually (1.8 tons per month).

An approximate average of 550 kg of waste is segregated for recycling per month.

- ***Biodiversity***

Both the Lucknow and the Noida campuses have impressive floral diversity. The Lucknow campus hosts 39 species of trees, while the Noida campus has 44 species belonging to various genera. Data also shows 60 species of birds that are directly sighted within the campus premises. The Lucknow campus, for instance, is home to several rare bird species like Long-tailed Minivet, Black-hooded Oriole, Red-collared Dove, Rose-ringed Parakeet, Indian Scops Owl, and Jungle Owlet.