



भारतीय प्रबंध संस्थान बेंगलूर  
INDIAN INSTITUTE OF MANAGEMENT  
BANGALORE



Built of grey stone and concrete grown over with dense vegetation, IIMB synthesizes centuries of Indian architectural history with principles of sustainability.

## Indian Institute of Management Bangalore

- City: Bangalore
- Site area: 4,04,686 m<sup>2</sup>
- Built up area: 1,20,000 m<sup>2</sup>
- No. of storeys: Ground + 3
- No. of building blocks: 8
- Typology: Educational Institution
- Type of Building: Mix of AC/ Non-Ac Rooms
- Year of Completion: From 1979 to 2000



*“Waste isn’t waste until we waste it.”*

- IIMB’s sustainable strategies revolve around the philosophy of reduce, reuse and recycle when it comes to waste, water and energy.
- We segregate, recycle and reuse waste.
- Amount of waste (organic + inorganic) generated -1000 kg/capita/day.
- Amount of organic waste (landscape + kitchen) generated 500-600 kg/capita/day.
- As part of IIMB’s philosophy, we partner with our service providers on reduction of waste and IIMB is on the path to become zero-waste campus.



*“Waste isn’t waste until we waste it.”*

1. Provision of colour-coded dustbins to aid segregation of waste across campus.
2. Collection and sorting of waste on campus with the help of experts of an NGO called SAHAS.
3. Dry waste is sorted & sent to authorized recyclers.

### **Sewage Treatment Plant:**

- 600 kLD capacity plant with SBR Technology.
- It yields 2.5 lakh litres of treated water every day, which meets our complete needs for the garden spread over 55,000 sqmt.



*“Waste isn’t waste until we waste it.”*

We use natural fertilizers, made onsite through composting from wet waste, and organic pesticides to reduce pollution entering stormwater runoff.

Food waste is converted into compost and biogas by microbial cultures, in a biogas plant designed and installed by IIMB alumni, on campus.



**Biogas Plant**





*“The less you burn, the more you earn”.*

In the past **3-5** years, IIMB has significantly lowered its energy spending, bettered its level of efficiency, and advanced its own energy systems through a three-pronged strategy:

- Choosing energy efficient equipment.
- Exploring the use of renewable sources of energy.
- Constantly working with the IIMB community of students, staff and faculty on ways to improve the culture of how we work and live in a way that does not burden the environment.

### **Equipment:**

- High-efficiency lighting fixtures: Achieved an average energy saving of 980 kWh/ day.
- Star-rated AC units.
- Energy-efficient fans.
- BEE 3 Star-rated appliances: Replacement of old units was started three years ago. Over 50 per cent of the units have been upgraded with star-rated units and eco friendly refrigerant.



*“The less you burn, the more you earn”.*

## Exploring Renewable Energy Sources – Roof-top Solar Power Plants

Year	Power Generation through roof-top solar – Monthly average - kWh	Total power consumption – Monthly average - kWh	Percentage of total Power through roof top solar
2018	38765	3,26,128	11.88%
2019	38,406* (fewer sunny days in the year)	3,23,341* (due to energy-saving activities)	11.81%
2020	37,873* (fewer sunny days in the year)	2,34,602 * (due to fewer students on campus because of the pandemic)	16.15 %

## Solar Water Heaters

- Hot water supply to all the hostel blocks, faculty and staff quarters
- Demand reduction through solar water heaters – 175 kVA
- Total installed capacity – 32,000 litres

## Energy efficiency improvement in Power distribution

- On load tap switch transformers (1000kVA and 630 kVA)
- New cables from main power distribution
- Operate DG sets according to load (1000 kVA, 630 kVA and 2 Nos of 250 kVA)
- Energy meters at key locations for energy consumption monitoring. Achieved an average energy saving of 980 kWh/day.

*“The less you burn, the more you earn”.*

Built of grey stone and concrete grown over with dense vegetation, Indian Institute of Management Bangalore synthesizes centuries of architectural history with principles of sustainability.

The IIM Bangalore campus has been listed among **25 of the World’s Most Significant Post War Buildings** by the *New York Times Magazine* in 2021.

We have frequently been commended for being an exemplary campus and have won awards for:

- Our rain harvesting and water conservation practices from the Karnataka government.
- Our accessible design, from global corporations, such as Mphasis.
- Responsible landscaping practices from the State Horticulture Society.
- Many faculty and students use bicycles on campus.
- Battery-operated vehicles are used for visitors and residents to cut CO2 emissions.



**Rainwater Harvesting Sump**



**Electric vehicles**



## 3. INTEGRATED WATER MANAGEMENT

### *Recharge, Recycle, Reuse*

Our green campus increases biodiversity (it provides habitats for birds, butterflies and insects), improves local air quality, beautifies the area, reduces pesticide use, reduces stormwater runoff.

We capture stormwater that would otherwise go through the storm water drains and into local waterbodies untreated.

- Approx 30% of rainwater runoff is being recharged.
- Borewells are recharged through RWH
- Three old open wells have been rejuvenated



Recharge Well



Sewage Treatment Plant



## Recharge, Recycle, Reuse

### Rainwater Harvesting

- Rooftop rainwater is harvested at six locations and stored in 6 sumps after basic filtration. There are 5 sumps of 50,000 litres capacity and 1 sump of 1 lakh litres capacity. Water is pumped to the overhead tanks from these sumps and used for all purposes in the respective buildings.
- Harvesting of rooftop runoff from 7 buildings yield 23.1 million litres of water annually, which meets 11.2% of the annual demand of 237.25 million litres of water. Rainwater harvesting has been implemented in 6 of them, with the runoff from the Hostel Block being directed into the adjacent open well, and the rest is collected and stored in the sumps.

### Recharging Wells

- 57 recharge wells of 5 ft diameter and 30 ft depth have been dug around the campus at different points along the stormwater drains, to send surface runoff rainwater to recharge the groundwater. Overflow from the rainwater sumps is also let into the recharge wells.
- For a 100-acre campus area, the approximate runoff generated from a rainfall of 30mm and the number of recharge wells required, is:

Area (acres)	Area (sqm)	Runoff coefficient	Runoff in annual rainfall (KL)	Runoff in 30mm rainfall (KL)	Total no. of recharge wells needed	Constructed till date
100	4,04,685.64	0.4	1,57,018.03	4,856.23	194	57

- The volume of runoff currently being recharged by the existing recharge wells is:

No. of Recharge Wells	Depth (ft)	Diameter (ft)	Static volume of each well (cft)	Static volume of each well (litres)	Recharge volume of each well (litres)	Total static volume (KL)	Total recharge volume (KL)
57	30	5	588.75	16,671.54	25,007.32	950.28	1,425.42



## 4. ENVIRONMENTAL AWARENESS

*The science is clear. We're taking action.*

- The Institute runs an FSSAI-certified canteen to provide nutritious food for the staff & the workers.
- Plantation activities are undertaken every year involving the IIMB community within & outside the school premises
- A qualified professional gynaecologist visits IIMB every week for medical checkup of female staff, students & workers.

Universal accessibility measures are adopted in keeping with the “harmonized guidelines and space standards for a barrier-free built environment for the Persons with Disabilities and Elderly Persons”:

- Special accommodation
  - Modification made in hostel rooms with accessible furniture, fixtures, toilets, handrails etc.
  - Ramps, handrails, lighting, signage across campus
  - Accessible washrooms
  - Accessible washrooms constructed for men and women at old hostel blocks.
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- Use of eco-friendly pest control sprays and gels.
  - Use of housekeeping items & biopesticides derived from waste citrus peels & essential microorganisms.



## *The science is clear. We're taking action.*

Our green campus is not only a magnet for human visitors across the world, it increases biodiversity (it provides habitats for birds, butterflies and insects), improves local air quality, beautifies the area, reduces pesticide use, reduces stormwater runoff.

1. As part of IIMB's philosophy, awareness regarding segregation of waste at source is at the core.
2. Awareness campaigns are conducted periodically to enforce and implement segregation and eliminate mixed waste.
3. Campus residents are encouraged to convert food and garden waste into compost.
4. Digital displays, instead of banners and flexes, are used for all events on campus. Use of plastic is strictly banned.
5. Plants are gifted to visiting dignitaries and to employees on their birthday instead of bouquets.
6. Students and staff are involved in tree planting every year. The IIMB campus is a perfect example of a school where "tree huggers" would thrive. In fact, IIM Bangalore has nurtured close to 60 translocated trees which were removed on Bannerghatta Road for the Bangalore Metro Rail project, in 2019. The trees, we are happy to report, are thriving.
7. Residents are motivated to use of ecofriendly housekeeping items.



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## CASE STUDY SUMMARY: HOW GREEN ARE WE?

School name: Indian Institute of Management Bangalore

School Location : Bangalore , Karnataka

### Key features :

1. As part of IIMB's philosophy of “**waste not, want not**”, while food (wet) waste is converted into biogas and compost, sorted dry waste is sent to authorized recyclers and thus IIMB is on the path to become a zero-waste campus.
2. About 16.5% of our power requirement is met by roof-top solar plants. Energy-efficient equipment is used in all our buildings, hostels and classrooms, and across our campus.
3. Battery-operated electric vehicles and bicycles are used to commute on campus to reduce CO2 emissions.
4. While 100% recycled water is used to maintain our award-winning gardens, 29% of runoff water is recharged in the ground & 11.2% is stored to meet our annual water requirement.
5. IIMB not only provides nutritious food but also takes care of the health of staff, students and faculty through yoga, meditation, fitness and health camps and classes.
6. Every member of the IIMB community is involved in reducing waste, avoiding use of plastic, tree planting, use of green vehicles & ecofriendly housekeeping & pest control products.
7. IIMB is on the path to become a wholly sustainable B-school.



Students participate in Swachh Bharath Abhiyan and clean up City's roads in south Bangalore.



Students plant trees on the IIMB campus.



Trees translocated due to the Metro Rail project are thriving on campus.