Minutes of the Green Committee Meeting held on 24th March 2026 at the Committee Room, James Thomson Building, IIT Roorkee

Members Present

The following members were present:

1. Prof K. K. Pant, Director - Chairman
2. Prof U. P. Singh, Dy Director - Special Invitee
3. Prof Bhanu Prakash Vellanki, CED - Convener
5. Prof. Inderdeep Singh, Dean Infrastructure - Member
4. Prof. Millie Pant, Dean Saharanpur Campus - Member
5. Prof Jeevanand S., Associate Dean Infrastructure (Electrical & A/C) - Member
6. Lt. Col. Deepak Kumar Thakur, Institute Engineer - Member
7. Shri Bhavneesh Lal, Institute Architect - Member
8. Prof Vimal Kumar, DoCE - Member
9. Prof Sparsh Mittal, DoECE - Member
10. Prof Saurabh Vijay, CED - Member
11. Prof Kritika Kothari, WRDM - Member
12. Prof Pratham Arora, DoHRE - Member
13. Prof Prakhar Mishra, CED - Special Invitee
14. Prof Sandeep Bhat, DoES - Special Invitee (nominee of DoAA)
15. Prof Ajanta Goswami, Associate DOSW (Students Activities) substituting for ADOSW (B&M)
16. Mr. Lokesh Verma, DR, MM - Special Invitee

The last meeting was held on February 27, 2025 and the minutes were uploaded on the website https://www.iitr.ac.in/GP/green_committee.html.

Opening Remarks

The Chairman welcomed the members and asked the Convenor to present the agenda. The meeting focused on reviewing the status of previously discussed sustainability initiatives, identifying implementation gaps, and aligning institutional actions with NIRF-SDG requirements.

1. Action Taken Report on Previous Meeting

The Committee reviewed the status of key decisions taken in the previous meeting (27th February 2025), including:

- Solid waste management and biomethanation
- Treated wastewater reuse
- Solar energy performance
- Sustainable mobility
- Plastic ban enforcement

- Sustainability coordination mechanisms

It was noted that several action items remain partially implemented or pending.

2. Student Engagement through CORE Curriculum

Observations

Opportunity exists to integrate sustainability activities with curriculum.

Decisions

1. To ensure ranking requirements are met and to create awareness about sustainability programs, a video and related quiz will be shared by Green Committee to Dean Academics (DoAA) to ensure that ESS 101 students take the quiz as part of their internal marks.
2. Student (internal and external) visits to be arranged to sites such as STP, waste water reuse, Miyawaki, waste management etc to showcase our sustainability initiatives. Dr Sparsh Mittal will coordinate with DoAA.
3. Students who engage in following tasks of sustainability outreach activities can be given credit under the CORE program.
    1. Awareness sessions regarding:
        1. Segregation of waste for solid waste management via door to door campaigns
        2. Door to door e waste collection
        3. Liaison with gardeners to reduce fresh water usage and increase usage of treated waste water
        4. Eco Group students involved with coordinating the above aspects, and in implementing other sustainability initiatives
        5. Identification of sources (Bhawan canteens etc.) of single use plastics

3. Solid Waste Management, including Biomethanation Plant

Observations and Background

The Committee noted that solid waste management remains a critical parameter for institutional sustainability performance, including NIRF rankings, and requires immediate attention.

A site visit of the SWM facility was carried out on **04.06.2025** by AEE (Sanitation) and Dr. Bhanu Prakash Vellanki. Subsequent written communication dated **06.06.2025** from AEE (Sanitation) to the contractor (M/s Fabetto Ecotech Pvt. Ltd.) highlighted serious deficiencies, including:

- Presence of large quantities of untreated solid waste
- Absence of proper segregation of wet and dry waste
- No composting of wet waste at site

- Absence of analytical testing facilities
- Presence of a water pond within the facility, posing environmental concerns

Figure 1 A photo from the SWM facility site

Figure 2 A photo from the SWM facility site

Figure 3 A photo from the SWM facility site

Figure 4 A photo taken of the SWM facility from Google Earth, showing presence of a water pond within the facility, posing environmental concerns

The contractor, in response dated **10.06.2025**, stated that systems for segregation and composting were in place or under upgradation, and that improvements would be completed by **July 2025**.

However, based on subsequent observations and communication dated **23.06.2025** by Prof. Bhanu Prakash to the Institute Engineer, it was noted that:

- No effective waste treatment was taking place at site
- Only rag-picking/sorting activity was observed
- Claims made by the contractor were not consistent with ground conditions

Discussion

During the present meeting, it was presented that:

- A separate site visit was conducted by the Dean Infrastructure along with Prof. Kazmi, and it was confirmed that no effective solid waste management is currently taking place at the facility.
- Bids were invited for biogas/bio methanation plant

It was also noted that payments to the contractor had earlier been withheld for a period of approximately four months following these observations, but were subsequently resumed. The basis for resumption of payments and verification of compliance was not presented to the Committee. The contractual provision regarding revenue sharing from sale of recyclables to IIT Roorkee is not being implemented.

The Committee expressed concern regarding:

- Continued lack of scientific waste management despite outsourcing waste management
- Environmental risks associated with current site conditions due to digging of pond at the waste management site
- Delay in initiation of execution of biomethanation project

Decisions / Action Items

1. IWD shall take immediate corrective action to ensure full compliance with contractual provisions for solid waste management, including segregation at site, processing, and payment of value of recyclables to IITR.
2. IWD shall examine the matter and impose appropriate penalties, wherever applicable, for non-compliance with contract conditions.
3. The Committee reiterated the need to transition towards sustainable waste management by bio methanation.
4. To allow for operation of the bio methanation plant which requires segregated waste, it was decided that:
    - Student volunteers will conduct door to door awareness campaigns for 2 months: CORE enrolled students and Eco Group
    - It will be followed by fine being levied on those households not segregating their waste-IWD
    - after this month unsegregated waste will not be picked up-IWD
    - Canteens and messes to be made liable to segregate the waste generated at their end. ADOSW (B&M) to ensure this via change in SOP or terms at time of award of contract.

4. Water Sustainability and Treated Wastewater Reuse

Observations

The Committee noted a significant gap between campus water consumption and STP inflow (approximately **54% difference**), indicating inefficiencies in water distribution network and underutilization of treatment infrastructure.

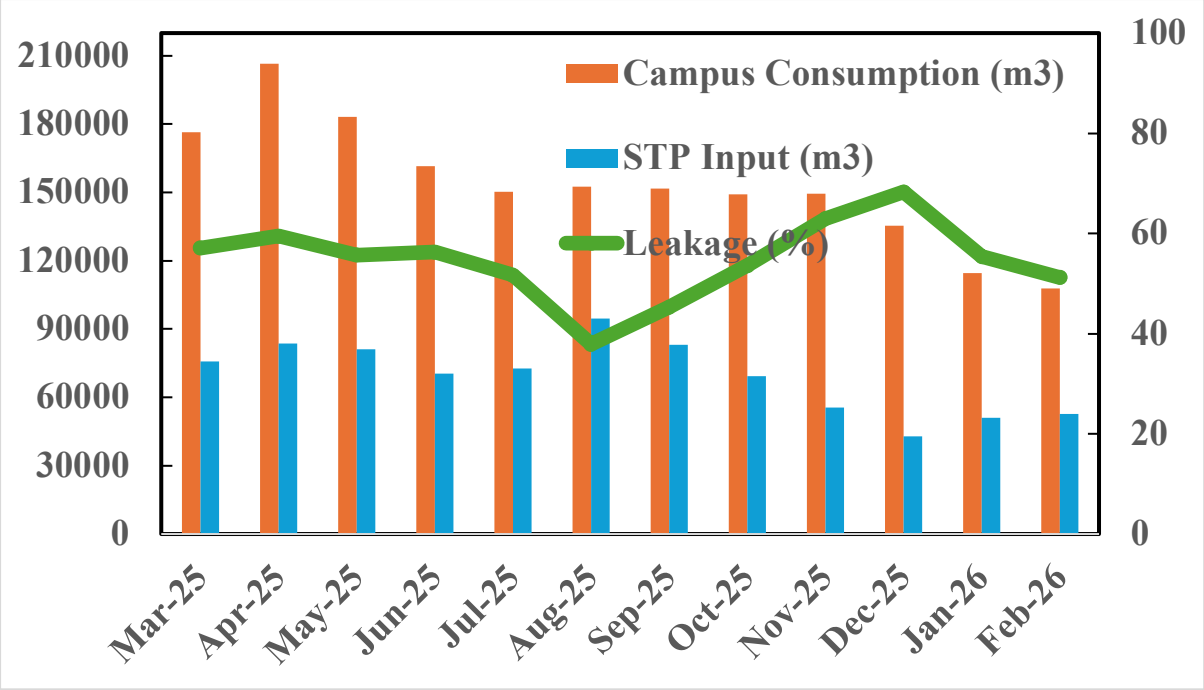

Figure 5 Campus water consumption and STP inflow. There is approximately 54% difference, indicating inefficiencies in water distribution network and underutilization of treatment infrastructure.

It was also noted that:

- Measures such as replacement of freshwater taps and reuse systems are not fully implemented
- Measures about further reuse of treated waste water are yet to be taken by IWD
- Data about the third phase of laying of recycle line to lawns which do not yet have supply of treated waste water is yet to be presented.
- The committee appreciated IWD for providing treated waste water for irrigation of the Miyawaki forest

Decisions

1. Fresh water flow taps at different lawns will be closed.
2. An institute-wide water audit shall be undertaken.
3. Water consumption data will be checked and corrected if necessary.
4. Flow meters shall be installed at key locations.
5. Dr Kritika Kothari will analyse the IITR water network and suggest the locations of the flow meters within the water network to allow for water audit and understanding of consumption by major users/departments.
6. Measures shall be taken to ensure safe and effective reuse of treated water for toilet flushing (pilot at one hostel where infrastructure is available) and cooling towers of centralised air conditioning units at LHC and new Chemistry Department
7. The necessary upgrades at the STP to ensure more effective pathogen removal, as a fail-safe, are to be provided by IWD, as mentioned in the previous meeting. Further UV treatment, and replacement of dysfunctional rotating filter with ultra filtration unit of capacity 1 MLD to meet reuse requirements should be implemented

5. Green Spaces and Concretisation

Observations

The Committee was glad to note that considerable areas along the road passing by LHC, Main building, NC Nigam were de-paved, allowing for recouping of green space and reducing run off. Areas near the IIC, Civil Department and CBRI circle to Amod path too were de-paved.

Figure 6 New Parking Lot with grass pavers and no concretisation and open spaces (Geospatial Building, Department of Civil Engineering)

Figure 7 Surface restoration (removal of paving) along the road along WRDM and NC Nigam

Some parking lots like the one near the Geospatial block of the Civil Department was laid without underlying concrete layer, but only with granular sub base (GSB) allowing for seepage and no water retention on surface during rains.

Nevertheless, continued paving of road sides with pavers other than grass pavers, and concretisation activities under paths or parking lots is still in progress, despite earlier resolutions.

Figure 8 Photo showing continued paving with base concretization in some parts of the campus

Figure 9 Photo showing paved surface near sports facility with no practical benefit

Figure 10 Photo showing continued paving in some parts of the campus

Decisions

1. No further concretisation shall be undertaken without prior approval of the Green Committee.
2. IWD shall identify areas for de-concretisation, including those paths with underlying concrete beds and those paths that are not necessary for the level of traffic on low traffic roads.
3. Permeable solutions shall be adopted wherever feasible. Dr Nihil Saboo, CED, will contact Dean, Infrastructure and trial the permeable pavements or porous paver blocks at pilot scale level, at an area to be identified by IWD.

Figure 11 A photo of Pervious Paver Block which allows groundwater recharge and reduces waterlogging and urban heat island effect

6. Campus heat hotspots

Observations

- Dr. Saurabh Vijay, CED, conducted thermal sensing using a drone.
- Some parts of the campus like the Miyawaki forest are more than 8 deg hotter/cooler than the air temperature
- This will have more impact during heatwave

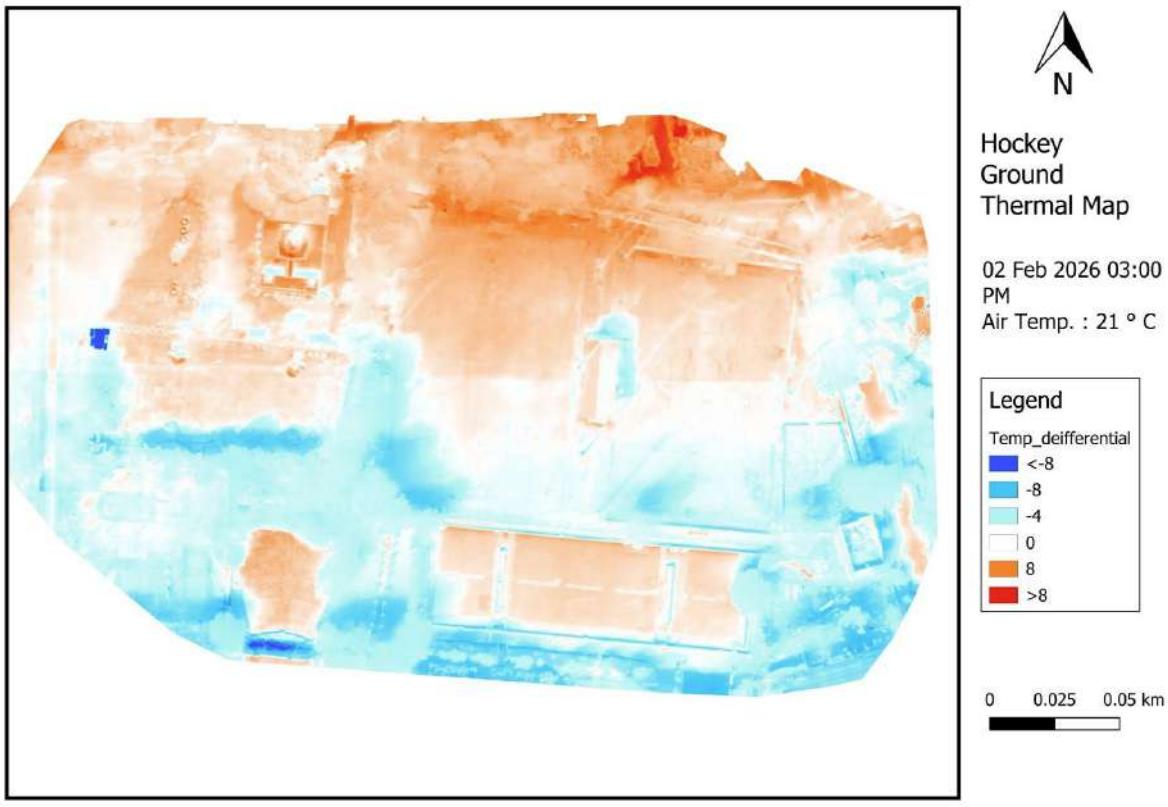

Figure 12 Thermal map of the the area near hockey ground, Saraswati Mandir (taken from a drone)

Decisions

- Dr Saurabh will create a campus heat hotspot map with more gradation of temperature difference.
- IA will look into decreasing the heat hotspots through interventions like tree or creeper cover and green roofing.

7. Energy Conservation and Solar Performance

Observations

- Decline in solar energy generation has been observed.
- IWD mentioned that measures were taken to move the panels to more efficient areas.
- Detailed review report is yet to be submitted

Decisions

1. IWD shall submit a status report on solar performance.
2. Steps shall be taken to restore and optimise generation.
3. Energy conservation measures shall be reviewed.

4. Temperature at common areas like LHC will be continued to be maintained at 28 C, especially when the weather is hotter than 35 C, to ensure that no one suffers from heat stroke due to such sudden change in temperatures, to ensure that the campus ambient temperature in the vicinity is not increased unreasonably and to ensure energy sustainability.
5. Buildings like SAC and some of the hostels that can accommodate more solar panels will be looked into. Areas like tennis, basketball and swimming pool too will be looked at for solar panel feasibility.

8. E-Waste Management

Observations

The Committee noted and appreciated the efforts made by Dr. Nikhil Dhawan. A structured institutional system is required.

Decisions

1. Dr Nikhil Dhawan will take the lead in developing a structured collection mechanism at the household and institutional level and coordinate with MM to ensure the same.
2. Disposal of institutional e waste shall be through authorised recyclers of the state/country only and not through self-authorisation.
3. E waste from households will be collected regularly via door to door visits by student CORE volunteers
4. The individual waste collected can be disposed along with institute waste.

9. Sustainable Mobility and No Carbon Vehicle Day

Observations

- E-buggy service by Indeanta has been discontinued
- No Carbon Vehicle Day has limited compliance
- Dr Saurabh Vijay mentioned that:
    - The earlier **FreeCycle** initiative struggled due less number of cycles made available
    - DOSW has committed to provide all the abandoned cycles in the hostel – nearly 2000 to start with
    - Security office has committed to provide nearly 50 cycles

Decisions

1. Feasibility of **institute-operated e-buggies** shall be examined. Dr Saurabh Vijay will coordinate with PIC, Transportation, to ensure that the e buggies of the institute are run on specified routes
2. Measures to promote sustainable mobility shall be explored.

    1. Implementing a campus bicycle restoration and sharing initiative, with around 2000 bicycles in Phase-I at an estimated cost of approximately ₹6 lakhs and scaling up gradually toward a larger fleet.
    2. The bicycles will be visibly coded, refurbished, and parked at multiple locations across campus for easy access by students, staff, and faculty.
3. No Carbon Vehicle Day shall be implemented, with it being made voluntary on extreme weather days like heat above 40 C, rain, hail, etc.
    1. Exemptions
        1. Safety, security and ambulance
        2. All taxis and vehicles from out of state
        3. Delivery vehicles related to Food, milk and medicines
        4. Vehicles carrying construction materials and garbage
        5. Vehicles of Divyang Jan or specially abled person
        6. Medical ground
        7. Medical Doctors visiting our hospital
        8. Vehicles carrying only students of Anushruti Academy not the staff

10. AQI Monitoring Stations

Observations

Proposal for AQI monitoring stations has been submitted.

Decisions

1. AQI monitoring station to be sent for budgetary approval

11. Plastic Use and Campus Hygiene

Observations

- While single-use plastics are banned in campus, including canteens/messes, they are still being used in some canteens and during student-led events, conferences, and other temporary events
- Widespread use of plastics in some events
- Improper disposal of food waste observed
- After advisory was sent by ADOSW (B&M), guidelines/SOP for hostels/canteens which do not follow plastic ban was requested by Chief Wardens

Decisions

1. Guidelines and SOPs shall be developed for canteens, messes, events and vendors by Dr Saurabh Vijay in coordination with ADOSW (B&M)
2. Monitoring and enforcement shall be strengthened.
3. Awareness to be conducted via CORE volunteers

12. Miyawaki Forest Plantation

Observations

The Miyawaki implementation at the Saharanpur campus is still pending.

Decisions

Dean, Saharanpur will ensure that Miyawaki plantation will be set up at the two locations identified.

13. Storm water management and groundwater recharge

IWD has mentioned that an agency has been hired for storm water analysis of the campus.

Decisions:

1. A step will be developed in the area opposite the SAC to handle part of the storm water and water from the swimming pool.
2. IWD will coordinate with CBRI to check if the IIT storm water flowing into Amod Kunj and Teachers Hostel can be diverted to the storm water pond of CBRI, before the storm water moves to Amod Kunj, Teachers hostel, CEC etc.


CBRI Pond
~4000 sqm