17.4.4. University as a body measure the sustainability literacy of students

Sustainability literacy among students is a core priority for SPIHER, reflecting the institution's commitment to equipping learners with the knowledge, values, and skills needed to contribute meaningfully to global sustainable development efforts. By integrating sustainability concepts into academic programmes, co-curricular initiatives, and campus-wide engagement activities, SPIHER ensures that students develop a strong understanding of environmental responsibility, social equity, and ethical decision-making.

Through workshops, seminars, community outreach, and hands-on learning experiences, students gain practical insights into real-world sustainability challenges and the importance of collaborative action. This foundational literacy empowers them to become informed, responsible citizens capable of driving positive change within their communities and future workplaces.

Integrating SDGs in Curriculum Design, Research, and Institutional Frameworks

Curricular Benchmarking	• Map Program Outcomes (POs) and Course Outcomes (COs) with relevant SDGs.
Research Benchmarking	• Identify and record publications/projects contributing to specific SDGs.
Operational Benchmarking	• Annual Green Audit, Energy Audit, and SDG Impact Report.
Governance Benchmarking	• Ensure IQAC reviews align with SDG-driven Key Performance Indicators (KPIs).
Student Development	• Promote SDG-linked clubs, hackathons, and community projects

Integrating SDG in curriculum

1. **NEP 2020** and **UGC Guidelines (2022)** emphasize embedding sustainability, ethics, and social responsibility in all programs.

2. The **AICTE Model Curriculum (2023)** recommends mapping courses with SDG themes under *Environmental Studies*, *Professional Ethics*, and *Project Work.*

3. **Global Data:** UNESCO (2023) found that **only 40% of higher education curricula worldwide** explicitly reference sustainability — a key gap India aims to close.
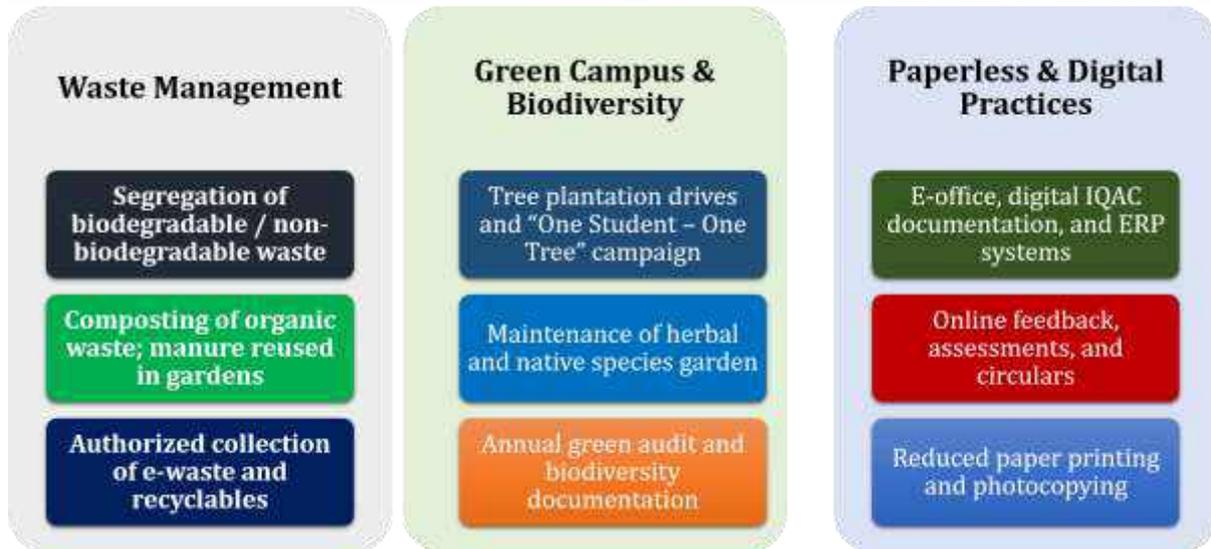
4. **India's Vision:** Through the **SDG India Index (NITI Aayog 2023)**, HEIs are recognized as *"change agents"* for achieving SDG targets by 2030.

Pedagogical Innovation:

1. Combines project-based learning (PBL) with service learning, allowing students to apply theoretical knowledge in real-life sustainability challenges.

2. Uses SDG rubrics in course evaluation (marks linked to social/environmental impact of projects).

Operational Sustainability Initiatives

Energy & Power Management

- Installation of rooftop solar panels and solar streetlights
- Campus-wide LED lighting and motion sensors
- Annual energy audit and monitoring dashboard

Water Conservation

- Rainwater harvesting and groundwater recharge pits
- Wastewater recycling for gardening and flushing
- Drip and sprinkler irrigation systems

Eco-Friendly Infrastructure

- Natural lighting and ventilation in new buildings
- Use of eco-friendly construction materials
- GRIHA-aligned / green building design practices

Waste Management

- Segregation of biodegradable / non-biodegradable waste
- Composting of organic waste; manure reused in gardens
- Authorized collection of e-waste and recyclables

Green Campus & Biodiversity

- Tree plantation drives and "One Student – One Tree" campaign
- Maintenance of herbal and native species garden
- Annual green audit and biodiversity documentation

Paperless & Digital Practices

- E-office, digital IQAC documentation, and ERP systems
- Online feedback, assessments, and circulars
- Reduced paper printing and photocopying

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SPIHER is committed to building a sustainable campus where education, research, and institutional practices work together to promote holistic development. By embedding the Sustainable Development Goals (SDGs) into curriculum design, the university ensures that students gain a deep understanding of global challenges such as climate action, social equity, responsible consumption, and sustainable innovation. Courses across disciplines integrate sustainability themes, encouraging students to think critically and develop solutions-oriented mindsets.

Research initiatives at SPIHER are equally aligned with SDG priorities. Faculty and students engage in interdisciplinary projects that address environmental, social, and technological issues, fostering knowledge creation that can support communities and influence policy. These research efforts also strengthen collaborations with government agencies, industries, and NGOs, advancing SDG-driven innovation and strengthening local and global partnerships.

SUSTAINABILITY LITERACY ASSESSMENT REPORT - 2024

Academic Session: **2024–25**

Target Group: **Undergraduate and Postgraduate Students**

Tool Used: **Internal Google Form-Based Questionnaire**

Assessment Period: **July 2024 – December 2024**

Objective

To evaluate the sustainability literacy, awareness, and environmental behaviors among students and to identify areas for further sustainability education and engagement.

Overview of Assessment Tool

The questionnaire-based tool includes:

- Awareness Rating Scale (1–5)

- Yes/No Behavioral Participation Questions

- Constructs Covered:

  1. Environmental Awareness

  2. Behavioral Engagement

  3. Familiarity with Sustainable Campus Practices and SDGs

Summary of Findings

Construct	Average (%)	Interpretation
Environmental Awareness	79%	Good Awareness
Behavioural Engagement	64%	Moderate Participation
Knowledge of Campus Sustainability Practices	58%	Needs Improvement

Construct-Wise Analysis

1. Environmental Awareness

Majority of students demonstrated a strong understanding of the impact of individual and collective actions on the environment. Students showed awareness of pollution, climate change, and basic environmental terms.

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2. Behavioral Engagement

While many students reported participating in recycling and awareness campaigns, day-to-day sustainable behaviors (e.g., conserving energy/water) were less consistently followed. This indicates a need for behavior-focused interventions.

3. Knowledge of Campus Sustainability Practices

Less than 60% of students were aware of sustainability features on campus such as solar panels, water harvesting systems, or waste management policies. This highlights the need for visual cues, awareness signage, and guided sustainability tours.

Recommendations

- Include sustainability orientation in student induction programs.

- Conduct campus-wide awareness campaigns on sustainable features.

- Launch competitions and challenges to increase participation in green practices.

- Encourage student-led eco-clubs and sustainability projects.

Evidence

- Google Form: "Sustainability Literacy Survey – Students 2024–25"

- Responses analyzed using institutional tools.

- Event flyers and reports hosted by the IQAC office and university website.

Which of the following best describes the concept of "environmental sustainability"?   ⧉ Copy
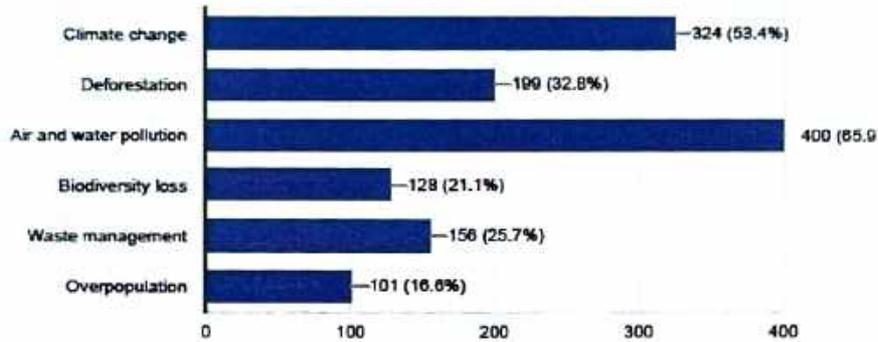
607 responses
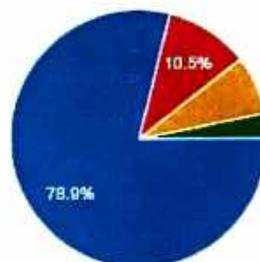
- Protecting natural resources for future generations
- Recycling waste only
- Economic development
- Not sure

78.9% 10.5%

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Which environmental issues do you consider most urgent today? *(Select up to 3)*
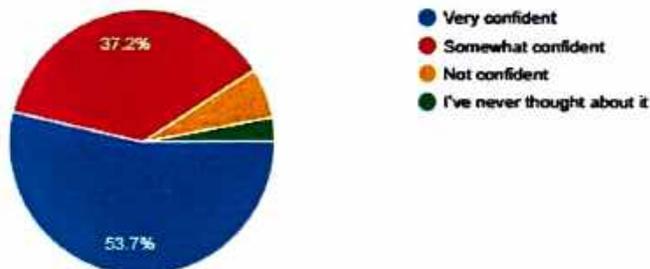
Copy

607 responses

- Climate change — 324 (53.4%)
- Deforestation — 199 (32.8%)
- Air and water pollution — 400 (65.9
- Biodiversity loss — 128 (21.1%)
- Waste management — 156 (25.7%)
- Overpopulation — 101 (16.6%)

How confident are you in your understanding of environmental challenges?

Copy

607 responses

- Very confident — 53.7%
- Somewhat confident — 37.2%
- Not confident
- I've never thought about it

How often do you engage in the following sustainable behaviors?
Section B: Behavioural Engagement

Copy

Legend: Always, often, sometimes, rarely, never

Categories: Use reusable bags or bottles · Turn off lights when not needed · Avoid single-use plastics · Use public or share transport
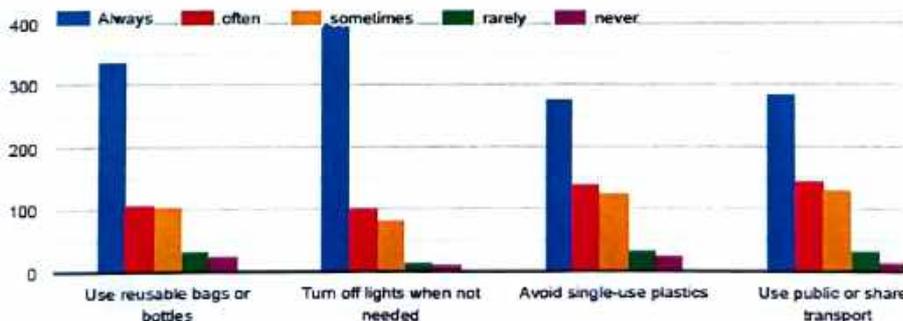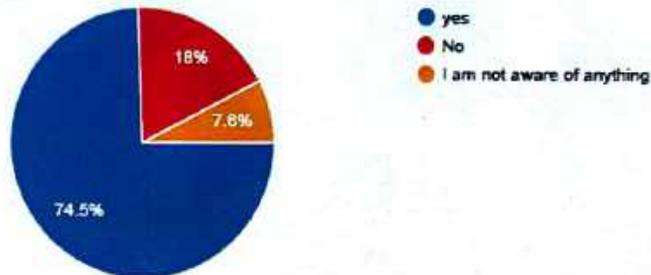
Have you ever taken part in a sustainability-related activity on campus (e.g., tree planting, clean-up drive, seminar)?

607 responses

- yes
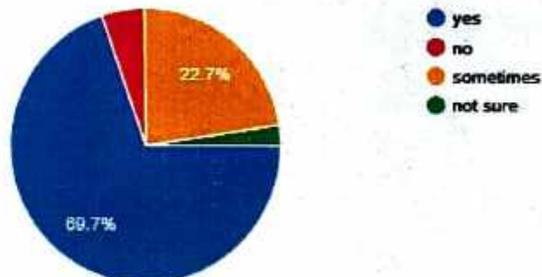- No
- I am not aware of anything

18%
7.6%
74.5%

Do you actively try to reduce your environmental impact in daily life?

607 responses
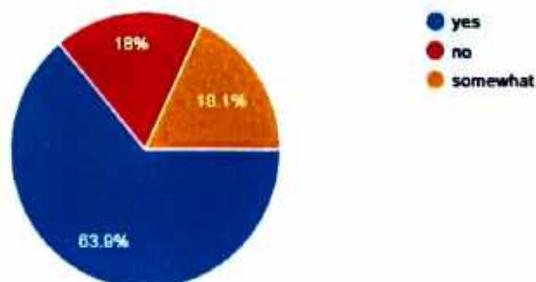

- yes
- no
- sometimes
- not sure

22.7%
69.7%

Section C: Familiarity with Sustainable Development Goals (SDGs)

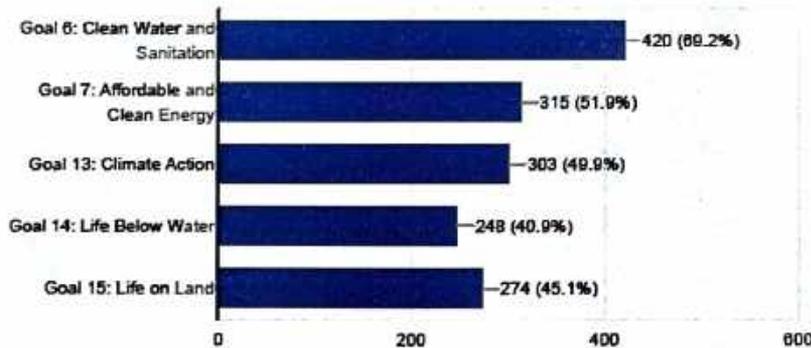Are you aware of the United Nations Sustainable Development Goals (SDGs)?

607 responses

- yes
- no
- somewhat

18%
18.1%
63.9%

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## Which of the following SDGs relate directly to environmental sustainability? *(Select all that apply)* 🗐 Copy

607 responses

Goal 6: Clean Water and Sanitation	420 (69.2%)
Goal 7: Affordable and Clean Energy	315 (51.9%)
Goal 13: Climate Action	303 (49.9%)
Goal 14: Life Below Water	248 (40.9%)
Goal 15: Life on Land	274 (45.1%)

Has your university offered any sessions, courses, or materials related to the SDGs? 🗐 Copy

607 responses

- yes 63.8%
- no 13.5%
- I am not sure 22.7%
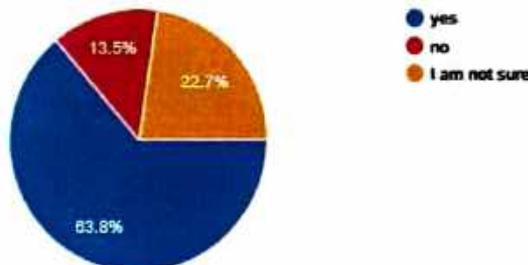
In your opinion, how important is it for students to learn about the SDGs? 🗐 Copy

607 responses
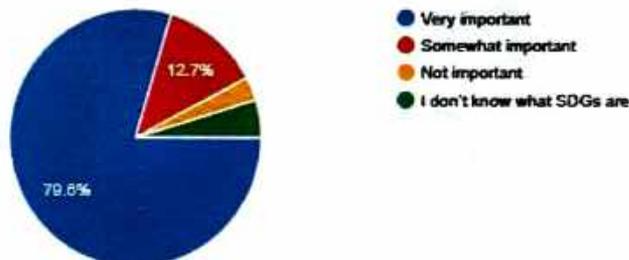
- Very important 79.6%
- Somewhat important 12.7%
- Not important
- I don't know what SDGs are

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33 YEARS

A+ NAAC

Conclusion:

SPIHER's initiatives toward enhancing sustainability literacy among students reflect its continued commitment to building an informed, responsible, and socially conscious academic community. By embedding sustainability concepts across the curriculum, strengthening research that addresses real-world challenges, and engaging students in experiential learning and outreach programmes, the institution ensures that learners develop the knowledge and competencies required to contribute meaningfully to global sustainability efforts.

These sustained actions directly advance SDG 17.4.4 by empowering students to understand, evaluate, and participate in solutions that promote environmental stewardship, social well-being, and ethical progress. Through a combination of academic rigor and value-based education, SPIHER is shaping a generation of graduates who are not only academically capable but also equipped to lead positive change in their communities and professional spheres.