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SR UNIVERSITY

# ANNUAL SUSTAINABILITY REPORT 2024



SUSTAINABLE  
DEVELOPMENT GOALS



## **PREFACE**

I am pleased to present the Sustainability Report 2024 of SR University, a document that highlights our institution's firm commitment to environmental responsibility, social well-being, and transparent governance. As a university that values innovation, inclusivity, and human-centered development, SR University continues to strive for a campus where academic excellence and sustainable development progress together.

Over recent years, sustainability has grown from an institutional initiative into an essential part of SRU's culture and operations. The year 2024 marks another important milestone in this journey, driven by the combined efforts of our students, faculty, administrative teams, and key stakeholders who have supported our transformation toward a greener and more resilient campus.

This report outlines our achievements across major sustainability domains, including the adoption of renewable energy, efficient water conservation practices, responsible waste management, green transportation, biodiversity enhancement, and the growing integration of sustainability into academics and research. Guided by strong policies, data-informed planning, and continuous improvement mechanisms, SR University has steadily strengthened its sustainability ecosystem while aligning itself with the United Nations Sustainable Development Goals.

Our initiatives such as expanding solar energy generation, strengthening rainwater harvesting systems, improving sewage treatment and recycling capacity, and advancing digital administrative processes underscore our commitment to minimizing environmental impact and improving efficiency.

Sustainability has also been deeply embedded within our educational mission. Through specialized courses, multidisciplinary research, experiential learning platforms, and student-driven innovation, SRU empowers learners to translate ideas into practical solutions for both campus and community. Our NSS programs, agricultural outreach, and awareness campaigns further extend our impact beyond the university, reaffirming our dedication to social and community development.

As Director of IQAC, I express my sincere appreciation to all departments and student organizations for their continuous contributions. The progress documented in this report reflects their hard work, collaboration, and sense of responsibility.

We continue our commitment to innovation and shared action to build a sustainable future.

**Director, IQAC**  
SR University

## 1. Introduction

SR University (SRU), one of India's fastest-growing private universities, continues its mission of fostering innovation, societal transformation, and environmental responsibility through a well-integrated sustainability framework. Guided by the vision of a *"Green Campus, Clean Campus, Sustainable Future,"* the university embeds sustainability across academics, infrastructure, research, governance, and community engagement.

This Sustainability Report synthesizes SRU's major achievements and initiatives across the domains of energy, water, waste, transportation, biodiversity, and sustainability education. It includes measurable outcomes, programmatic interventions, policy frameworks, and evidence-based practices, as referenced throughout the UI GreenMetric documentation.

SR University's sustainability efforts are structured around five strategic pillars:

1. Green Infrastructure and Energy Efficiency
2. Water and Waste Management Systems
3. Biodiversity and Ecological Balance
4. Education, Research, and Innovation for Sustainability
5. Social Responsibility and Community Well-being

Through these pillars, SRU demonstrates its long-term commitment to a carbon-conscious, resource-efficient, and socially responsible academic ecosystem.



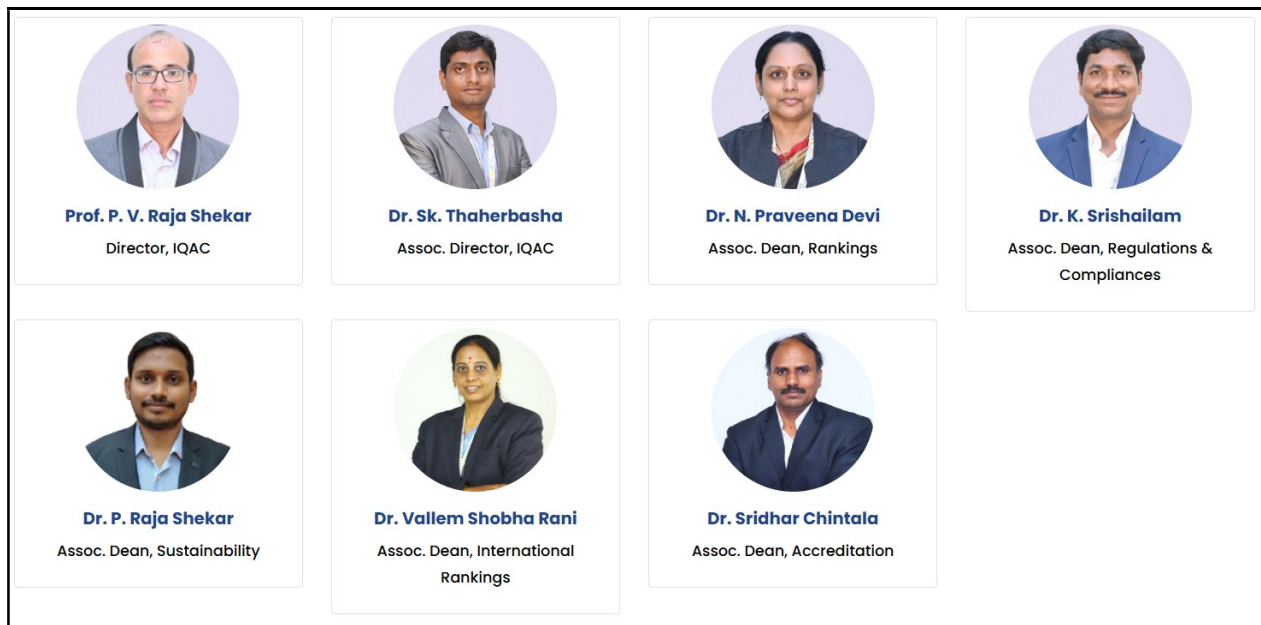
**SR University Campus**

## 2. Sustainability Governance and Strategic Framework

SRU's sustainability governance is anchored within the Internal Quality Assurance Cell (IQAC). The university has adopted multiple policies to strengthen accountability and direction:

- Green Campus Policy – Mandates tree plantation, biodiversity protection, and regular green audits.
- Energy Policy – Focuses on increasing solar energy generation and reducing overall electricity consumption.
- Water Usage Policy – Reinforces water harvesting, wastewater recycling, and smart monitoring systems.
- Waste Management & Sustainability Policy – Promotes segregation, recycling, paperless processes, and zero-plastic initiatives.
- Sustainable Materials Policy – Encourages the use and research of sustainable construction materials and procurement.

SRU publishes its Annual Sustainability Reports through the IQAC website and maintains transparency via online repositories where audit summaries, SDG mapping data, and yearly performance dashboards are publicly accessible.



### University's Sustainability Leadership

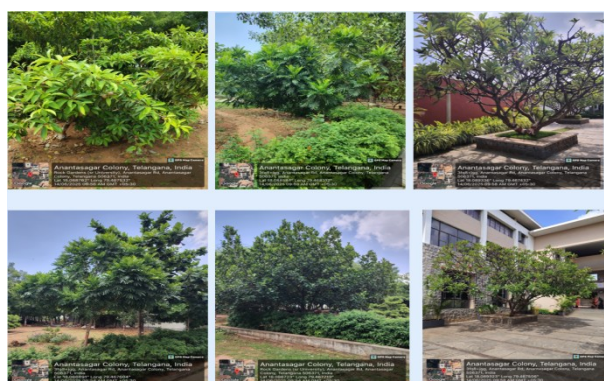
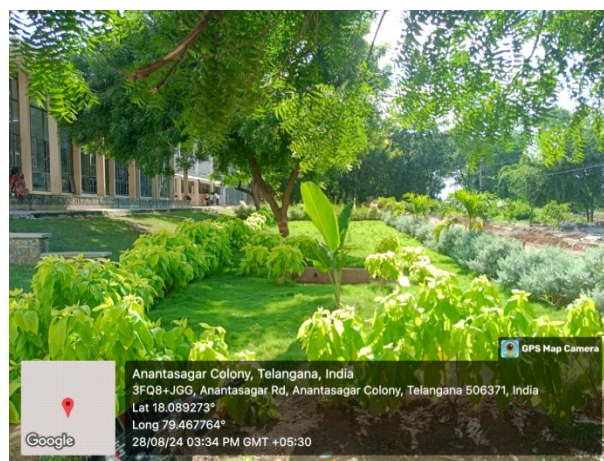
## 3. Infrastructure

SR University operates from a 162-acre campus that integrates modern infrastructure with robust sustainability elements. A major strength is the university's consistent budget allocation toward sustainability.

**3.1 Budget Allocation:** Over the past three years, SRU allocated an average annual sustainability budget of USD 3.66 million. This investment supports:

- Green campus development
- Solar photovoltaic installations
- Water recycling systems
- Open green spaces and biodiversity zones
- ICT-based sustainability systems
- Investigations, audits, and training

**3.2 Green Environment and Open Spaces:** Approximately 90% of the campus is maintained as green cover, including lawns, natural vegetation, biodiversity parks, and agricultural lands. The university integrates porous pavements, grassy zones, shade-net areas, and tree-lined pathways to enhance microclimate and heat reduction. A notable aspect is the 13% absorptive area, which enhances groundwater recharge and reduces runoff through lawns, soil patches, rainwater harvesting pits, porous pavements, and bunds.



**Green Spaces at SRU**

## 4. Energy and Climate Change

SR University has established a comprehensive framework to reduce carbon emissions, improve energy efficiency, and increase reliance on renewable energy systems.

**4.1 Renewable Energy Integration:** SRU currently generates 34% of its power from solar energy, supported by solar panels installed across academic blocks, hostels, and administrative buildings. The university also operates biogas units that convert food waste into fuel for cooking.

| No | Renewable Energy | Production (in kWh) |
|----|------------------|---------------------|
| 1  | Biodiesel        | 100                 |
| 2  | Biomass          | 500                 |
| 3  | Solar panel      | 561600              |
|    | <b>Total</b>     | <b>562200</b>       |



**Solar Panels at SRU**



**Biodiesel Generator Unit**

#### 4.2 Energy Efficiency Measures: The key interventions include:

- LED-based lighting systems campus-wide
- BLDC ceiling fans
- Energy-efficient building design that maximizes natural lighting
- ICT-based monitoring systems for energy consumption
- Reduced air-conditioning dependency through natural ventilation

These measures reduce operational energy intensity and contribute to carbon neutrality goals.

| Appliance | Total Number | Total number energy efficient appliances | Percentage |
|-----------|--------------|------------------------------------------|------------|
| Lamps     | 3300         | 2920                                     | 88.48      |
| Fans      | 4163         | 3285                                     | 78.91      |

#### 4.3 Carbon Footprint Assessment: SRU's total carbon footprint for the last academic year is 919 metric tons of CO<sub>2</sub>. The breakdown includes:

- Electricity emissions – 896.34 tons
- Bus transport – 11.52 tons
- Cars – 4.32 tons
- Motorcycles – 6.84 tons

Through increased solar production, green buildings, and low-emission transport initiatives, SRU has set a long-term target for further carbon reduction and aims to gradually attain carbon neutrality.



**Usage of zero emission vehicles**

**4.4 GHG Emission Reduction Program:** SRU implements a multi-scope emission reduction framework:

- Scope 1: Transition from diesel generators to solar/biogas.
- Scope 2: Electricity reduction through automation and LED adoption.
- Scope 3: Waste recycling, e-waste reduction, carpooling, shuttle services, online meetings for paperless and travel-less operations.

## 5. Water Sustainability

Located in a semi-arid region, SR University has developed one of the most comprehensive water conservation and recycling systems among Indian campuses.

**5.1 Rainwater Harvesting and Recharge:** SRU features 40+ rainwater harvesting pits, filtration-based recharge wells, bunds, and surface runoff canals designed to maximize water percolation and aquifer replenishment. These structures prevent waterlogging and increase soil moisture.

**5.2 Open Well Recharge System:** Multiple open wells across campus act as natural recharge points, channeling runoff from surrounding landscapes and increasing the groundwater table sustainably.



**Water Conservation Facilities**

**5.3 Greywater and Wastewater Recycling:** SRU operates a sewage treatment facility based on reed-bed constructed wetland technology. The treated water is reused for:

- Landscaping
- Gardening
- Green belt irrigation

The sludge generated is composted and reused as organic manure. Wastewater recycling fulfills nearly 20% of total campus water demand.

**5.4 ICT-based Water Management:** The technological tools include:

- Smart flow meters
- Level sensors
- Real-time dashboards
- GIS-based mapping of pipelines and water bodies

This digital infrastructure minimizes wastage and enables predictive assessment and optimization.

**5.5 Awareness and Engagement:** Training programs, water-saving campaigns, and observance of World Water Day elevate consciousness among students and staff of sustainable water practices.



## Water Treatment and Usage

### 6. Waste Management

SR University demonstrates a zero-waste model through rigorous waste segregation, treatment, and recycling systems.

**6.1 Organic Waste Treatment:** More than 85% of biodegradable waste is treated through:

- Biogas plants that convert hostel and canteen food waste to cooking fuel
- Vermicomposting units for garden waste
- Leaf composting for landscape maintenance
- Municipal corporation waste segregation mechanism

Compost produced is used for horticulture across the campus.

**6.2 Inorganic Waste Treatment:** SRU ensures safe collection and recycling of non-biodegradable waste:

- Paper waste: recycled or reused through digitalization initiatives
- Plastic waste: fully banned for single-use; collected and given to Warangal Municipal Corporation
- E-waste: stored securely and handed over to authorized recyclers
- Metal and glass waste: processed through licensed recyclers

Over 80% of inorganic waste is recycled due to these systematic practices.



**Biogas Plant**



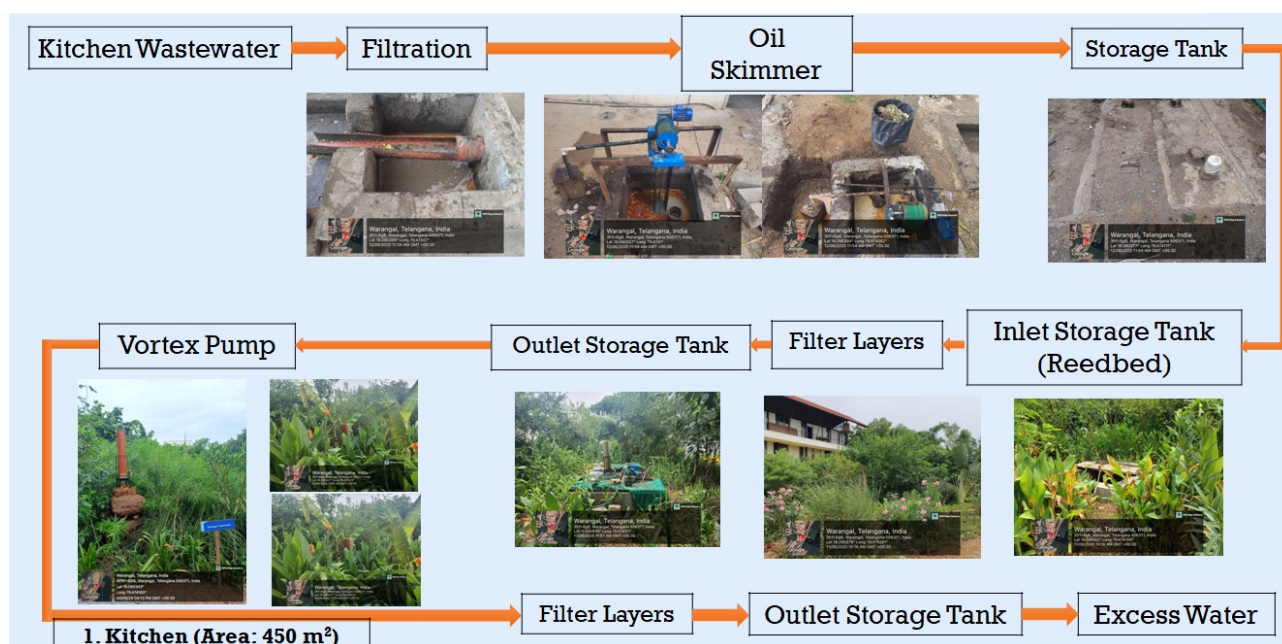
**Vermicomposter**



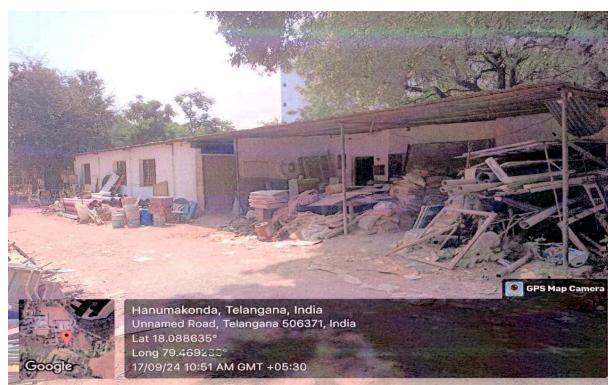
**Leaf Composter**



**Garbage Collection**



**Reedbed (Liquid Waste Management)**



**Junk Yard**



**E-waste Management**

**6.3 Toxic and Hazardous Waste Management:** Hazardous waste such as expired chemicals, oil, and batteries is:

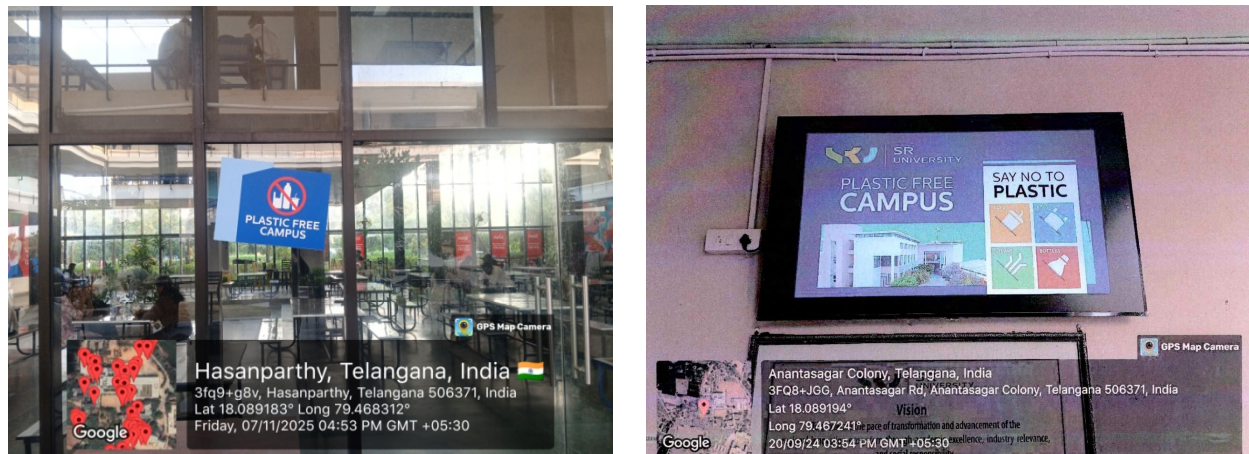
- Collected in labeled containers
- Stored safely
- Handed over to certified handlers

The university does not generate radioactive waste.

**6.4 Paperless and Plastic-Free Campus Policy:** SRU has implemented an outstanding digital transformation:

- SRUNIV, and SRAAP systems for all administrative operations
- Canvas LMS for academic transactions
- Default duplex printing and print limits
- Digital display boards replacing banners
- Steel plates and glasses in all dining areas
- Goodie bags made of cloth or jute

These measures significantly reduce paper and plastic usage.



**Plastic Free Campus**

**6.5 ICT-based Waste Monitoring:** SRU uses GIS-based route mapping, smart bins, ERP dashboards, and predictive analytics modules to track waste volume, efficiency, and frequency of collection for continuous improvement.

## **7. Sustainable Mobility**

SRU's sustainable mobility system reduces private vehicle dependency through multiple interventions.

**7.1 Low Vehicle-to-Population Ratio:** With approximately 335 vehicles for the campus population, SRU maintains a low vehicle-to-population ratio. Good percentage of these are electric vehicles, and the number is steadily increasing.

**7.2 Shuttle Services:** The university operates free electric shuttle services covering all academic blocks, hostels, and recreational zones. Shuttle buses are available during peak hours, including lunchtime for hostel students.

**7.3 Zero-Emission Vehicles (ZEVs):** SRU encourages green mobility through:

- Electric buggies
- Bicycles
- Electric two-wheelers
- Electric cars

These help significantly reduce carbon emissions and noise pollution.

### **7.4 Pedestrian-friendly Campus**

SRU maintains well-marked, tree-shaded, and wheelchair-accessible pedestrian pathways connecting all blocks. This encourages walking, promotes inclusivity, and reduces air pollution.

## 8. Sustainability Curriculum and Research

**8.1 Sustainability in Academic Programs:** SRU integrates sustainability across disciplines with 142 sustainability-related courses. These include:

- Renewable Energy Systems
- Sustainable Manufacturing
- Smart Grids
- Water and Wastewater Management
- Sustainable Agriculture
- Environmental Ethics and Biodiversity Conservation

Programs like B.Tech. EEE, B.Tech. Civil, B.Sc. Agriculture, and some M.Tech. programs explicitly embed sustainability concepts.

**8.2 Sustainability Research Funding:** SRU dedicates an annual average of USD 221,380 to sustainability research covering

- Clean energy
- Water and waste recycling
- Biodiversity conservation
- Nanomaterials
- Smart systems
- Sustainable agriculture

Research centers like CEET, CESIoT, and SRiX support technology-driven solutions with societal impact.

**8.3 Experiential Learning and Living Labs:** Students engage in

- Tree mapping
- Energy audits
- Smart irrigation solutions
- Waste management projects
- Renewable energy demonstrations

The campus ecosystem itself serves as a living laboratory for sustainable development.

**8.4 Clubs & Cultural Activities:** SRU hosts 25+ ongoing student-led initiatives, including

- Environment Club
- Garden Club
- Coding & AI Club
- Robotics Club
- NSS and NCC activities

Events include tree plantations, cleanliness drives, marathons, awareness campaigns, health camps, and sustainability exhibitions.



**NCC Unit**



**NSS Unit**



**Awareness programs**



**Tree Plantation Programs**



**Community Service Projects**

| Stage                   | Description of Activities                                                                                                                                                                                                     | Tools / Platforms Used                                                                                 |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Planning                | Formulation of ICT policy to integrate teaching, learning, research, and governance systems; defining KPIs and workflow structure; inclusion of ICT initiatives in strategic plan.                                            | ICT Plan, ERP Policy Document, Strategic Plan Document                                                 |
| Implementation          | Deployment of university-wide ERP system covering academics, research, HR, and student services. Introduction of LMS for blended learning. Launch of dashboards for faculty research, attendance, and examination monitoring. | SRAAP & SRUNIV portals, Learning Management System (LMS), Online Assessment Tools, Research Repository |
| Monitoring              | Periodic review of ERP and LMS performance; tracking of departmental progress through dashboards; feedback collection from users; regular ICT audits by IQAC.                                                                 | IQAC Monitoring Dashboard, Feedback Portal, Audit Reports                                              |
| Evaluation and Revision | Data-driven analysis of ICT outcomes; integration of new features based on user feedback; review of governance indicators annually; presentation of results in Academic Council and Governing Body meetings.                  | ICT Performance Reports, Data Analytics Tools                                                          |

## 9. Social Responsibility and Community Engagement

SRU actively collaborates with rural communities through:

- Cleanliness and sanitation drives
- Renewable energy awareness programs
- Agriculture training for farmers
- Health camps
- Drug awareness rallies
- Sustainability workshops

These programs align with SDGs related to health, education, responsible consumption, and community development.

## 10. Targets and Achievements

SRU sets quantifiable sustainability targets annually. The Key Targets include the following

- Energy: 40% renewable energy by 2026
- Water: 90% treated wastewater reuse by 2025
- Waste: 75% reduction in paper and plastic usage
- Green cover: Tree-to-student ratio above 3:1
- Research: 20% annual increase in sustainability publications

Achievements

- 34% energy through renewables
- 85% organic waste reutilization
- 80% inorganic waste recycling
- 13% absorptive area with rainwater harvesting
- 30% reduction in parking areas
- 142 sustainability courses
- 25+ green cultural programs annually

These accomplishments highlight SRU's accelerating progress toward sustainability leadership.

SR University has emerged as a national model for sustainable campus development through its integrated, data-driven, and community-centric approach. Its initiatives in renewable energy, water conservation, waste management, transportation, sustainable curriculum, and community engagement showcase a holistic sustainability ecosystem.

The university's ambitious long-term goals - expanding renewable energy, enhancing biodiversity, reinforcing circular waste systems, and achieving carbon neutrality—reflect a deep institutional commitment to transforming challenges into innovative solutions.

With continuous investments, transparent reporting, and broad stakeholder participation, SR University is strategically positioned to be a global leader in sustainability and a benchmark institution aligned with the United Nations Sustainable Development Goals.