Metric No.- 7.1.6

Report of Environment Audit

Environment Audit

EARTH WATER AIR LIGHT SPACE

ENVIRONMENT AUDIT 2020-23

EDUCATION INNOVATION HYGIENE SPACE TRANSPORT

Certificate

This is to certify that

CHHATRAPATI SHAHU JI MAHARAJ UNIVERSITY

Kanpur, Uttar Pradesh

has achieved the global standards for environmental responsibility with academic accountability for the Universities during the Green University Audit - 2020-23.

GM/EA/2022/25/E

This Certificate is issued on the bases of Green University Audit Report 2020-23

GREEN MENTORS
Powered by Law of Nature
Special Consultative Status with the
Economic and Social Council of United Nations from 2021

22-12-2022
Virendra Rawat
Director, Green Mentors

BUILDING DESIGN & LANDSCAPING

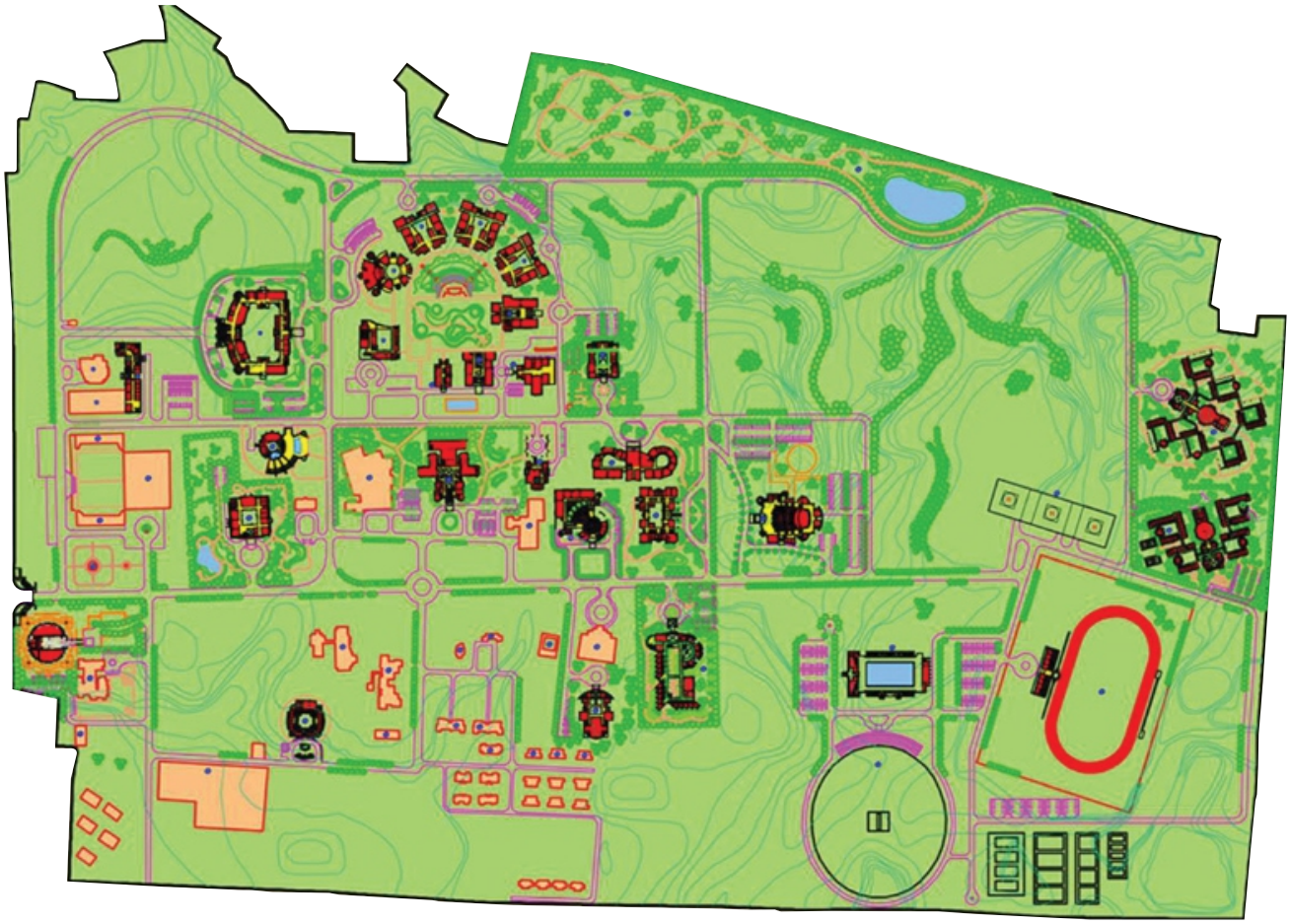
1. Local Building Regulations

1 2 3 4 5 6 7 8 9 10

Green building laws and codes in our country are voluntary. A green building uses less water, optimizes energy efficiency, conserves natural resources, generates less waste, and provides healthier spaces for occupants than a conventional structure.

Built-up learning spaces of CSJMU meet all local building laws.

- Land area 264.0 acre
- Roof area 112000.0 sq.mt. approx
- No.of trees 10500 nos.
- Green area 100.0 area approx
- Road area 55000.0 sq.mt. approx
- Footpath 35000.0 sq.mt.
- Uncovered or turf area 200000.0 sq.mt. approx



BUILDING DESIGN & LANDSCAPING

BUILDING DESIGN & LANDSCAPING

2. Top-Soil Preservation

1 2 3 4 5 6 7 8 9 10

Topsoil is the uppermost layer of soil capable of growing and supporting vegetation. Soil conservation is the prevention of loss of the topmost layer of the earth from erosion or the prevention of reduced fertility caused by over usage, acidification, salinization, or other chemical soil contamination.

CSJMU has taken proactive measures towards topsoil conservation on the campus through regular aeration that allows the nutrient to reach the roots of plants, filling the holes created by aeration, indigenous gardening, building wind barriers, mulching, and placing stepping stones for walkers on topsoil.

BUILDING DESIGN & LANDSCAPING

3. Eco-friendly Commuting Practices

1 2 3 4 5 6 7 8 9 10

CSJMU encourages its students & professors to adopt environmentally friendly transport to minimize the environmental impact of automobile use.
In addition, University offers residential facilities to its professors and non-teaching staff that reduce ecological impact.

	Walking	Bicycle	Motorcycle	Car	University Bus	Public Transport	Total
Students	500	615	1000	05	0	4100	6220
Teachers	20	7	100	70	0	0	197
Non-Teaching Staff	50	50	100	30	0	73	303

BUILDING DESIGN & LANDSCAPING

4. Parking Facility

1 2 3 4 5 6 7 8 **9** 10

CSJMU has sustainable tree-shaded parking spaces, including sustainable paving materials, energy-efficient or natural lighting, renewable energy sources, and improved pedestrian walkways.

Buses	Cars	Motorcycles	Bicycles
10	500	1200	500

BUILDING DESIGN & LANDSCAPING

5. Greenery in Campus

1 2 3 4 5 6 7 8 9 10

Maintaining a rich diversity of plants is vital to stable and healthy ecosystems as they provide food, shelter, and other essential habitat components for wildlife.

Interaction with Greenery can improve human stress reduction, emotional states, and cognitive function.

CSJMU has maximized Greenery on its campus, including community gardens, parks, meadows, green roofs, playing fields, and wetland that supports well-being and education outcomes.

1	Building foot print	80 Acre
2	Playground area	6 Acre
3	Vegetated space	125 Acre
	A. Turf area	100 Acre
	B. Area with native species	-
	C. Area with drought tolerant species	2 Acre
	D. Other Species area	1 Acre
4	Non-roof impervious area	5 Acre
5	Water body	9 Nos

BUILDING DESIGN & LANDSCAPING

BUILDING DESIGN & LANDSCAPING

6. Minimise Heat Exposure to Sun: Non-Roof

1 2 3 4 5 6 7 8 **9** 10

CSJMU Campus is housing 10500 trees and plants speared in 264 acres of land area that is restricting impervious surfaces from being exposed to the Sun to minimize the impact on microclimate in the campus.

A.	University campus area	264 Acre
B.	No. of existing trees / saplings planted	10500
C.	Total non-roof area, area covered with trees (foliage) or open grid pavers	100 Acres

BUILDING DESIGN & LANDSCAPING

7. Minimise Heat Exposure to Sun: Roof

1 2 3 4 5 6 7 8 **9** 10

CSJMU has planted trees in a strategic way that provides shade to the roof in summer; when the leaves fall, the trees allow the Sun to shine through, creating a desired solar heat gain effect during the winter.

Most of the roof areas are covered with solar panels, and the remaining areas are covered with tiles & paint to reduce the concrete surface that was exposed to the Sun that minimizes the impact on the microclimate on the campus.

Total Roof Area	80 Acres
Total Roof Area covered with tiles/ paint/ vegetation	80 Acres

BUILDING DESIGN & LANDSCAPING

8. Universal Design

1 2 3 4 5 6 7 8 **9** 10

Universal Design for Learning (UDL) is an approach to teaching and learning that gives all students an equal opportunity to succeed. The goal of UDL is to use various teaching methods to remove barriers to learning. It's about building flexibility that can be adjusted for every person's strengths and needs.

Learning spaces at CSJMU are designed to facilitate differently-abled pupils. Rest Rooms are also designated for differently abled Students; a Hindrance-free movement facility is available in the common area.

Cumulative Score	74/80

WATER MANAGEMENT PRACTICES

1. Rainwater Harvesting: Roof & Non-Roof

1 2 3 4 5 6 7 8 9 10

The Earth's surface is acquired by 71%with water, but only 3% of water can be used as potable water. Nowadays, water conservation is one of the basic principles of green University.

CSJMU's well-designed rainwater harvesting system enhances the groundwater table and reduces potable water usage. CSJMU captures the maximum runoff volume of rainwater from Roof & Non-Roof areas

Runoff coefficients for Typical Surface Types

Sr. No.	Surface Type	Runoff coefficient
1	Cemented / Tiled Roof	-
2	Roof Garden (<100 mm thickness)	2 NOS.
3	Roof Garden (100 – 200 mm thickness)	-
4	Roof Garden (201 – 500 mm thickness)	-
5	Turf, Flat (0 – 1% slope)	30000.0 SQMT.
6	Turf, Average (1 - 3% slope)	25000.0 SQMT.
7	Turf, Hilly (3 - 10% slope)	1500.0 SQMT.
8	Vegetation, Flat (0 - 1% slope)	3000.0 SQMT.
9	Vegetation, Average (1 - 3% slope)	6000.0 SQMT.
10	Vegetation, Hilly (1 - 3% slope)	5000.0 SQMT.
11	Concrete Pavement	25000.0 SQMT.
12	Gravel Pavement	30000.0 SQMT.
13	Open-grid Concrete Pavement	-
14	Open-grid Grass Pavement	75000.0 SQMT.
15	Water Body	-
16	Playground	35000.0 SQMT.

WATER MANAGEMENT PRACTICES

Rain Water Harvesting Calculation

Sr. No.	Surface Type	Run-off coefficient (c)	Area (m2) (a)	Impervious area (m2) I = (c × a)
2	Playground		35000.0	
4	Vegetation, average (1-3% slope)		5000.0	
6	Water Body		1 NOS	

WATER MANAGEMENT PRACTICES

2. Water Efficient Plumbing Fixtures

1 2 3 4 5 6 7 8 9 10

CSJMU has initiated responsible use of freshwater practices in academic and hostel areas to reduce potable water consumption in drinking Water Points, face washing points, urinals, and toilets to reduce water flow rate in daily use.

Most of the plumbing fixtures are low flow without hammering the performance. Plumbing fixtures have achieved water efficiency standards for Green University and are working correctly with no leaks or drips.

WATER MANAGEMENT PRACTICES

3. Turf Design

1 2 3 4 5 6 7 8 9 10

Turf is a significant component of the whole landscape in CSJMU, which meets functional and aesthetic expectations for the teaching-learning community while at the same time minimizing the impact of natural resources and the more great environment.

The turf area of CSJMU has many drought-tolerant species in its total vegetated area that minimizes water consumption.

Type of vegetation	On Ground (sq.m.)
Turf	200000.0 sqmt approx
Native species	5000.0 Trees
Drought tolerant species	-
Other plant species	5500.0 Trees
Total	10500.0 Trees

WATER MANAGEMENT PRACTICES

4. Water Efficient Landscaping

1 2 3 4 5 6 7 8 9 10

Most universities in India use their maximum water for landscape and lawn irrigation, while a water-efficient landscape is functional, attractive, and easily maintained in its natural surroundings.

Whole Landscaping on the CSJMU campus is water efficient, reducing water consumption through responsible irrigation practices and mulching. In addition, the vegetated area of campus contains drought-tolerant plant species, including trees, shrubs, herbs, climbers, and grass, that require less water than other species.

WATER MANAGEMENT PRACTICES

5. Water Efficient Irrigation System

1 2 3 4 5 6 7 8 9 10

CSJMU uses sprinkle irrigation is an efficient irrigation system that keeps landscape plants healthy and beautiful.

Instead of wetting the whole landscape, water is applied only to the plant root zone.

The primary goal of sprinkle irrigation is to use water when plants need it most and at rates necessary for proper plant growth.

WATER MANAGEMENT PRACTICES

6. Waste Water Treatment

1 2 3 4 5 6 7 8 9 10

The so-called 'wastewater' is a vital resource; after treatment, it returns to the water cycle.

CSJMU treats its used water generated from toilets, showers, baths, kitchen sinks, laundries, and agricultural processes on the campus.

WATER MANAGEMENT PRACTICES

7. Use of Treated Waste Water

1 2 3 4 5 6 7 8 9 10

Treated water replenishes surface water and groundwater and recharges aquifers. In addition, CSJMU uses treated water for flushing toilets and irrigation of vegetated areas, reducing dependence on fresh water.

WATER MANAGEMENT PRACTICES

8. Water Use Monitoring

1 2 3 4 5 6 7 8 **9** 10

The water Monitoring system helps the University improve water distribution and detect water loss and leakages. This system allows University to know where the leak is occurring and the extent of the water loss.
The Water quality monitoring system also helps University continuously monitor water quality on a REAL time basis. Furthermore, this intelligent system raises alarms in case the water quality differs from the required standards. This helps the treatment plant operators take immediate corrective actions if the water quality is not as high as the required standards.
CSJMU has a modern water monitoring system with few flow meters indicating daily, weekly and monthly water uses in various facilities.
Water loss is prevented through real-time alerts of water overflow, leakages, and dripping, ensuring judicious use of Water Consumption.

Cumulative Score	75/80

AIR QUALITY LEVEL

1. Tobacco Smoke Control

1 2 3 4 5 6 7 8 9 10

Air quality is a measure of how clean or polluted the air is. Monitoring air quality is important because polluted air can be bad for our health—and the health of the environment.

Exposure to air pollution can affect everyone's health. When we breathe in air pollutants, they can enter our bloodstream and contribute to coughing or itchy eyes and cause or worsen many breathing and lung diseases, leading to hospitalizations, cancer, or even premature death.

Cigarette smoking causes environmental pollution by releasing toxic air pollutants into the atmosphere. One cigarette per day is equivalent to a PM2. 5 particle concentration of 22 µg/m3.

The cigarette butts also litter the environment, and the toxic chemicals in the residues seep into soils and waterways, thereby causing soil and water pollution, respectively.

Breathing clean air can lessen the possibility of diseases from stroke, heart disease, and lung cancer, as well as chronic and acute respiratory illnesses such as asthma.

CSJMU is a totally Smoke-Free Campus; Anti Smoking Policies are strictly implemented that eliminate exposure of students & teachers to tobacco smoke & reduce health impacts caused due to passive smoking.

AIR QUALITY LEVEL

2. Day Lighting

1 2 3 4 5 6 7 8 9 10

Indoor environmental conditions in classrooms and namely day lighting conditions also influence student's health, well-being and performance. The conscious use of daylight in Classrooms has a great potential for improving the comfort and the academic performance of users, contributing, simultaneously for the rational use of energy in building.

Maximum regular occupied spaces at IIITB Campus are daylit, & average daylight factor is maintained.

AIR QUALITY LEVEL

3. Fresh Air Ventilation

1 2 3 4 5 6 7 8 9 10

A good ventilation system helps to expel a build-up of pollutants, bacteria, moisture and unpleasant odors, such as body odor from classroom.

Maximum regularly occupied spaces like Classrooms, Laboratories, Libraries & Indoor Game Facilities of IIITB Campus are adequately ventilated, and that improves health and well-being of Students & Faculties.

AIR QUALITY LEVEL

4. Area of Class Room

1 2 3 4 5 6 7 8 9 10

A conducive classroom environment helps both teachers to teach effectively and students to learn with ease and perform better academically. The appropriate area available for teaching and learning enhances the learning outcomes of students.

All learning spaces, including classrooms of CSJMU, are well designed according to statuary standards and norms that follow appropriate occupant density, which enhances Student Productivity.

Anthropometry has considerable importance in optimizing the design of buildings. The underlying principle of anthropometrics is that building designs should adapt to suit the human body rather than people having to adapt to suit the buildings.

Anthropometric dimensions of learning spaces aim to create safe, comfortable, and productive learning spaces by bringing human abilities and limitations into the design of the building, including the individual's body size, strength, skill, speed, sensory abilities (vision, hearing), and even attitudes.

Maximum learning spaces of CSJMU, including Classrooms, Laboratories, Libraries & Indoor Game Facilities, Toilets, and Hostels & Canteen, are designed according to standard anthropometric dimension norms that allow comfort to the students.

AIR QUALITY LEVEL

5. Anthropometric Dimensions in spaces

1 2 3 4 5 6 7 8 9 10

Anthropometrics are used in designing teaching-learning spaces to make everyone as comfortable as possible; this means that the room's dimensions must be acceptable, with high ceilings, broad doorways and hallways, and so on. The underlying principle of anthropometrics is that building designs should adapt to suit the human body rather than people having to adapt to suit the buildings.

Anthropometric measurements commonly used for students include height, weight, mid-upper arm circumference (MUAC), and head circumference.

Anthropometric dimensions of the University aim to create safe, comfortable, and productive learning spaces by bringing human abilities and limitations into the design of the building, including the individual's body size, strength, skill, speed, sensory abilities (vision, hearing), and even attitudes.

Maximum learning spaces of CSJMU, including Classrooms, Laboratories, Libraries & Indoor Game Facilities, Toilets, and Hostels & Canteen, are designed according to standard anthropometric dimension norms that allow comfort to the students.

AIR QUALITY LEVEL

6. Toxin-free Environment

1 2 3 4 5 6 7 8 9 10

A toxin-free environment is also known as a chemical-free environment. Every student is, in some or another ways, exposed to millions of toxins daily. These include things like cleaning products, paints, chalks, cosmetics, and personal care items.

The best way to reduce exposure to chemicals is to keep them out of learning spaces and let the students make conscious choices about chemical use.

Using non-toxic or less toxic chemicals such as cleaners, degreasers, and other maintenance chemicals. Implementing water and energy conservation practices.

Governing body of CSJMU has declared the policy to use materials with low emissions, especially Paints and Cleaning products, to reduce adverse health impacts on the students and teachers.

AIR QUALITY LEVEL

7. Dust-free Environment

1 2 3 4 5 6 7 8 9 10

Airborne dust functions in a manner similar to the greenhouse effect: it absorbs and scatters solar radiation entering Earth's atmosphere, reducing the amount reaching the surface, and absorbs long-wave radiation bouncing back up from the surface, re-emitting it in all directions.

Dust also affects photosynthesis, respiration, and transpiration and allows the penetration of phytotoxic gaseous pollutants. Most of the plant communities are affected by dust deposition, so the community structure is altered.

Dust reduces indoor air quality due to the presence of dust mites. These small arachnids are invisible to the eye but can be found in the same areas where dust collects. Many people have dust mite allergies which can cause symptoms similar to a cold, such as a runny nose, coughing, and sneezing. The dust has a severe impact on learning outcomes.

Governing body of CSJMU has declared the policy to use Dust Free Products, including chalk & other materials, to reduce adverse health impacts on the Students and Faculties.

AIR QUALITY LEVEL

8. Exhaust Systems

1 2 3 4 5 6 7 **8** 9 10

Exhaust Fans are installed in all Toilets, Urinals, Canteens & Laboratories of IIITB learning and residential facilities that maximize airflow & enhance the Indoor Air Quality.

Cumulative Score	73/80

SUSTAINABLE RESOURCES UTILIZATION

1. Waste Segregation

1 2 3 4 5 6 7 8 9 10

The average composition of waste in the University consists of organic waste (24.840%), paper (23.499%), soft plastic (7.450%), hard plastic (5.673%), plastic bag (9.129%), metal (1.294%), glass (1.392%), hazardous waste (0.512%), other waste (9.289%), and residue (16.922%)

Waste segregation is the sorting and separating of waste types to facilitate recycling and correct onward disposal.

Waste Segregation Mechanism is well-placed at CSJMU Campus. Waste generated through various sources and practices is being segregated safely & sent to recycling & composting sites or authorized recyclers safely, preventing debris from being sent to landfills.

SUSTAINABLE RESOURCES UTILIZATION

- **Solid Waste Management and Recycling:**

Collection bins have been placed at different locations on campus. After segregation, the biodegradable waste is subject to degradation for academic, research, and community development activities.

- **Liquid Waste Management:**

The grey and black water from the residences is treated in the Sewage Treatment Plant (STP) installed on campus. In addition, wastewater is treated through the primary, biological, and tertiary units.

- **Biomedical waste management:**

Biomedical waste generated from the health center, School of Health Sciences, School of Pharmacy, and other laboratories is being managed through the medical pollution control committee Kanpur. In this regard, the University also has an MoU with Medical Pollution Control Committee.

- **E-Waste Management:**

The University has MoU with M/S Bharat Oil & Waste Management Ltd (BOWML) for the Management of E-Waste.

- **Waste recycling system:**

CSJMU recycles waste and produces energy that is used for different purposes.

- **Hazardous chemical Waste:**

CSJMU follows the UGC guidelines, 2011, concerning using and storing chemicals for academic and research purposes. The University has MoU with M/S Bharat Oil & Waste Management Ltd (BOWML) for the Management of Hazardous substances.

SUSTAINABLE RESOURCES UTILIZATION

उत्तर प्रदेश UTTAR PRADESH 47AE 026552

MEMORANDUM OF UNDERSTANDING

This agreement is entered into between:
Chhatrapati Shahu Ji Maharaj University, Kanpur
Kalyanpur
Kanpur Nagar (UP)
Herein after the above will be termed as the **FIRST PARTY.**

MEDICAL POLLUTION CONTROL COMMITTEE,
H.O.: 21, E Block, Kalpi Road Panki, Kanpur
Contact No. +919235659305, +919235659306

Herein after the above will be termed as the **SECOND PARTY.**

The Terms and conditions of the contract are:

1. That the First Party is engaged in the activity of Nursing Homes/ Hospitals/ Pathological Laboratories/ Blood Bank/Dental Clinics/Surgical Clinics/Private Clinics/Pharmaceutical Company, Veterinary Hospital etc. at **Kanpur Nagar, UttarPradesh**
2. That the Second Party is a **Non-Government Organization** with it registered office situated at H.O. **21, E Block, Kalpi Road Panki, Kanpur.**

Chhatrapati Shahu Ji Maharaj University **Medical Pollution Control Committee**

REGISTRAR
C.S.J.M. UNIVERSITY
KANPUR

SUSTAINABLE RESOURCES UTILIZATION

ISO 9001:2015

BHARAT OIL & WASTE MANAGEMENT LTD.

(BOWML)

www.bharatoil.com

Passionately Protecting Mother-Nature Since 1978

MEMBERSHIP CERTIFICATE

M/s. **Chhatrapati Shahuji Maharaj University**

02, G T Road, Kalyanpur Kanpur Kanpur Nagar-208002, UP

is a registered member of our facility

BOWML/K/4838/22

Gata No. 672. Vill. Kumbhi, Akbarpur Road, NH - 2 Kanpur-Dehat-209101, UP

for safe, legal & scientific Disposal of Hazardous Waste

Member # : BOWML/K/4838/22

Expiry Date : June 07, 2023

Scan & Verify

One may verify 'active' membership by calling
Bharat Oil & Waste Management Ltd. at
011-4100 0710, 2621 6466 or Email : sales@bharatoil.com

For Bharat Oil & Waste Management Ltd.

Authorized Signatory

For Bharat Oil & Waste Management Ltd.

Authorized Signatory

*Membership is subject to the terms & conditions of agreement & may be terminated by BOWML, upon non-payment of dues / payment.

SUSTAINABLE RESOURCES UTILIZATION

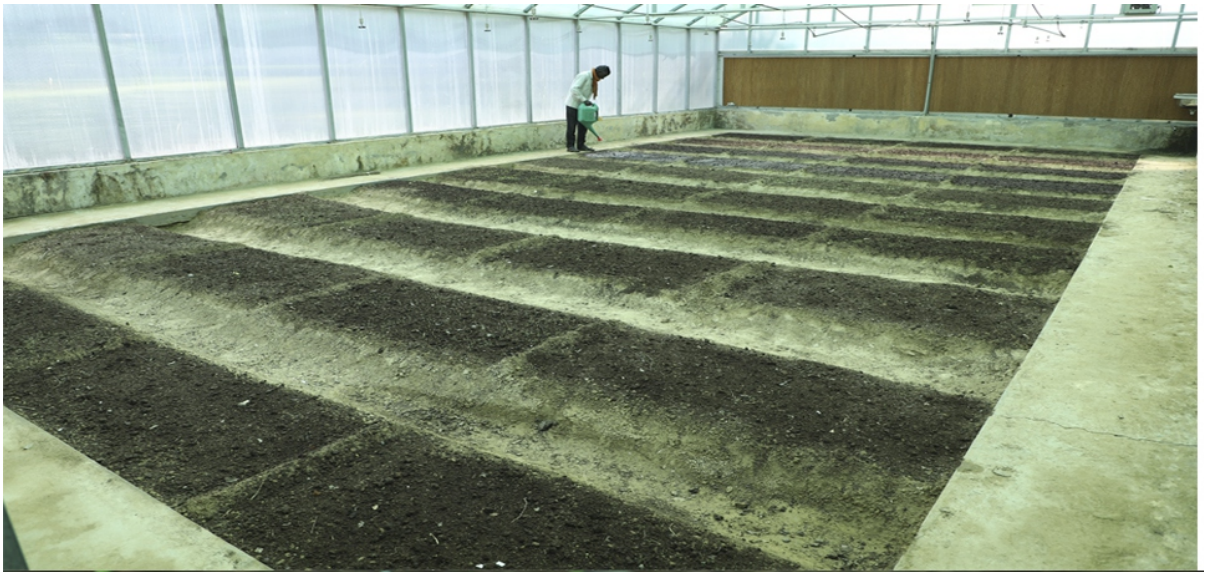
2. Organic Waste Management

1 2 3 4 5 6 7 8 9 10

Organic waste is any material that is biodegradable and comes from either a plant or an animal. Biodegradable waste is organic material that can be broken into carbon dioxide, methane, or simple organic molecules.

Composting is a managed process that utilizes microorganisms naturally present in organic matter and soil to decompose organic material. These microorganisms require essential nutrients, oxygen, and water for decomposition to occur at an accelerated pace.

CSJMU sends its organic waste to various composting and Vermicomposting Facilities that make waste a resource and prevents the trash from being sent to landfills.



SUSTAINABLE RESOURCES UTILIZATION

3. Green Policy

1 2 3 4 5 6 7 8 9 10

The green campus policy is a Statement that focuses on the ecological impact of teaching-learning practices on the Campus and develops new paradigms for the pupil-planet relationship.

The Green campus policy is designed to protect the Campus's ecological systems and resources and reasonably use environmental resources to meet the needs and aspirations of the present and future generations.

CSJMU framed a broader Green Policy that inspires its teaching-learning community to take responsibility for the future through their behavior toward nature and natural resources

Introduction

Green campus is a place where environment friendly practices and education combine to promote sustainable development. The green campus offers an institution, the opportunity to take the lead in redefining its environmental culture and developing new paradigms by creatingsolutions to environmental, social and economic needs of mankind.

Chhatrapati Shahu Ji Maharaj University, Kanpur isrecognized for pursuing its strategic objectives, in relation to research and teaching. The University demonstrates higher sensitivity and responsibility in implementing green concepts in the campus. Spreading awarenesson the green practice among students and educating stakeholders regarding establishment and maintenance of green campus is the priority. The University fairly manages waste, water resources solar and electric energy, conserve natural resources, and provide ecofriendly and solar passive buildings etc.

The University is striving to develop on a self –sustainable basis in the areas of power, water and cleanliness. Therefore, this policy represents an important component of sustainability strategy of the University. This document makes out the University aims and objectives for safeguardingthe details of the organization and arrangements for implementing and monitoring them in accordance with national environment policy 2006.

Scope

All the stakeholders of Chhatrapati Shahu Ji Maharaj University, Kanpur, including officers, teaching and non-teaching staff, students, and those who use the Campus, shall adhere to the green policy.

SUSTAINABLE RESOURCES UTILIZATION

Aims &Objectives

Aims of the Green Policy

- To promote sound environmental management policies and practices throughout the campus.
- To adopt targets for improving environmental performance.
- To manage its operations in ways that are environmentally sustainable, economically feasible and socially responsible.
- To ensure a sound understanding of current environmental performance.
- To ensure sustainable use of resources and prevent wasteful or damaging practices.
- To protect and nurture the environment by exercising proper control over all its activities.
- To reduce and prevent environmental pollution.

Objectives : Clean & Green Campus

- To maintain cleanliness in the campus.
- To maintain greenery in the campus by establishing landscaping with trees & plants & gardening.

Water Management

- To promote effective water management drip pipe lines, recycling of drainage and rain water harvesting.
- To make efficient and environmentally responsible use of water, including identifying opportunities for water reuse.
- To inspect taps for draining and repair immediately to avoid loss of potable water.
- To resolve and manage water scarcity problem regularly.
- To protect environment towards climatic changes and conservation of resources for drinking water.

Energy

- To promote installation of solar power equipment's/converters.
- To promote use of bee (bureau of energy efficiency) rated electronic equipment's.

Waste Reduction and Recycling

- To spread the awareness amongst society about the waste management for ecosystem and methods for its disposal.
- To create awareness about conversion of waste into renewable energy.
- To set and achieve targets for reducing resource use.
- To increase the rate of recycling of all appropriate materials based on life-cycle principles.
- To implement sustainable resource management practices, based on 3R -Reduce, Reuse and Recycle principles.
- To manage all type of waste properly.

SUSTAINABLE RESOURCES UTILIZATION

Green Buildings

- To promote and advocate the implementation of solar passive technology for sustainability and green concepts.

Tobacco Free and Smoking Free Campus

- To prohibit chewing of tobacco and smoking in the campus.

Paperless Office & Communication

- To advocate the benefits of paperless work in reducing the waste production.

Awareness and Training

- To communicate internally and externally the environmental objectives and performance of the University.
- To raise awareness among the staff and students regarding environmental impact, activities and performance, and good practices of the University.
- To arrange appropriate environmental educational programs for staff and students.
- To encourage and facilitate feedback and suggestions on ensuring good practice.

Specific Measures for the Green Policy

Lighting

- Most lighting on campus to be upgraded to high-efficiency lighting (such as led technology, etc.) With electronic ballasts.
- Increase use of daylighting should be considered because the use of daylight spaces decreases energy costs and may improve productivity.
- Lighting, wherever practical, should be controlled by campus-wide energy management system occupancy times, unoccupied period set-backs, and environmental parameters, as well as campus-related (and athletic) activities, will be coordinated to ensure the best possible use of resources.
- Installation of more solar power generation plants.
- Use of the 'change brightness automatically when lighting changes' feature for computer screens.
- Training in the Practice of turning the computer off or into stand-by mode when idle.
- Water management
- There should be rainwater conservation through rainwater harvesting to enhance groundwater.
- Water leaks, dripping faucets, and fixtures that do not shut off should be repaired.
- Installation of water-saving devices in toilets and tabs.
- Installation of water-efficient fixtures to reduce the consumption of potable water.

SUSTAINABLE RESOURCES UTILIZATION

- Adoption of water-efficient landscaping to reduce water consumption.
- Reduction of the demand for irrigation water through water-efficient irrigation technology.
- Treatment of wastewater to tertiary standards so as not to pollute water streams.
- Use of treated wastewater for in-situ applications, to reduce dependence on potable water.
- Introduce double-sided printing to reduce paper waste.
- Reuse of one-sided papers for internal college work.

Energy efficient equipment & Management

- Energy-efficient products shall be purchased whenever possible.
- Recyclable and reusable products should also be purchased when feasible to reduce disposal costs.
- Continuous review of energy conservation programs.
- Tracking of electricity supply metre readings to locate problem areas as well as to determine if conservation goals are being met.
- Training must be provided to ensure that both operation and service technicians have the skills and knowledge to effectively achieve energy savings education.
- An education program providing information on utility costs, trends, and user impact on these costs will be arranged.

Waste management

- The green policy focuses on systemic way of waste management. It should be based on 3Rs-Reduce, reuse and recycle.
- All type of waste generated in the university campus should be managed through the university itself or by collaboration with waste management agencies. There should be memorandum of understanding between the university and waste management agency.
- All stakeholders of the college shall be sensitized about green campus initiatives through wallpapers, notices, circulars, street play, mimes, etc.
- Landscaping with trees & plants
- Proper landscaping should be done in the campus.
- Plantation of more trees and plants
- Tree plantation drive should be conducted.
- Various programmes on green campus and benefits of tree plantation should be conducted to increase awareness among students for tree plantation.

Clean air

- Campus should be tobacco free. Smoking and use of tobacco products should be prohibited.
- Students and staff should be motivated for use of electrically operated vehicle.
- More use of electrically operated vehicle or CNG bus or e rickshaw for travel inside the campus.
- There should be restricted entry of automobiles in the university campus.
- Observation of no Vehicle Day in the university campus at least once in a month.

SUSTAINABLE RESOURCES UTILIZATION

Minimize use of paper

- Maximize use of paperless technology i.e. sharing of data/lecture notes on e-mail, social media, learning management system, etc.
- Increase awareness about taking notes electronically.

Plastic Free Campus

- Ban on single-use plastic as per the govt. Norms.
- To facilitate environment-friendly substitutes like stainless steel, washable & reusable tumblers, steel or paper plates, glasses, etc. to systemically ban the use of plastics on the campus.

Green Environmental & Energy Audit

- Regular conduction of green/energy-environment / audits to assess our strengths & weakness to further our long-term sustainability goals.

Review and Implementation of Green Policy

- A committee will be constituted by the Vice-chancellor of the university to implement &review the policy from time to time.
- Green policy will be displayed on the college website and communicated to all stakeholders.

Initiatives are taken by the University to implement the Green Policy

The university is committed to managing its campus in accordance with its green policy.

The university has established the infrastructure and carried out many activities:

1. Landscaping with trees & plants and gardening.
2. Waste management- solid waste/ liquid waste/ biomedical waste/ hazardous chemicals and other waste management.
3. Water management through rainwater harvesting, installation of water-saving devices etc.
4. Maintenance of water bodies & distribution systems on the campus.
5. Use of electrical/battery-operated vehicles inside the campus.
6. Plastic free campus.
7. Installation of solar panels.
8. Use of energy-efficient LED Bulbs, Fans& other types of equipment, etc.
9. Biogas plant.
10. Restricted entry of vehicles.
11. Paperless office & communication.
12. Sensor based energy conservation.
13. Use of street light controller on campus.
14. Tree plantation drive.
15. Cleanliness drive.
16. Tobacco-free campus.
17. Digital library facility.

SUSTAINABLE RESOURCES UTILIZATION

18 Awareness initiatives- various activities have been conducted under Swachh Bharat Abhiyan for awareness of clean & green campus by NSS, NCC.
19 Volunteers and students of the university.
20 Installation of sanitary napkin incinerator machine at Girl's hostel, different departments/ institutes of the university.
21 Workshops have been conducted on the 3Rs-: Reduce., Reuse & Recycling of waste.
22 Observation of no vehicle day once a month.
23 Observance of days to protect & nurturing the environment.
24 Display of posters on clean/ Green Campus, waste management, saving water, etc.
25 Green Environmental & Energy Audit.

4. Salvaged Materials

1 2 3 4 5 6 **7** 8 9 10

Salvaged or reclaimed building materials are not a solid waste, but components include woodwork in the form of doors and windows, steel in the form of grills, and any other reusable fixtures in good condition, removed from a building during renovation. Salvaged or reclaimed building materials are materials that are recycled for reuse.

CSJMU makes new furniture & fixtures by using salvaged materials to reduce the dependence on virgin materials.

5. Eco-friendly Wood Based Materials

1 2 3 4 5 6 7 **8** 9 10

Timber is usually classified as either hardwood from broad-leafed trees, such as Beech and Oak, or softwood from conifers like Pine and Fir. Simply because they're replaceable, fast-growing species like Pine trees tend to be more sustainable than slow-growing trees like Oak.

Sustainable timber is harvested from professionally managed forests, which means that once a tree is cut down, a new one is planted in its place. This initiative has a positive impact on forest diversity, which ensures animals and plant habitats are protected.

CSJMU encourages using Certified Composite Wood to encourage the use of Eco-friendly Wood Based Materials towards conserving Forest Resources and reducing the dependence on virgin materials.

SUSTAINABLE RESOURCES UTILIZATION

6. Materials with Recycled Content

1 2 3 4 5 6 **7** 8 9 10

Material with Recycled content is content like many kinds of glass, paper, cardboard, metal, plastic, tires, textiles, batteries, and electronics that have been made from pre- and post-consumer material.

CSJMU uses materials in its new construction sites and repairing spaces that have recycled content like Concrete, Bricks, Fly ash Bricks, Aluminum Windows, and Glass & Tiles to reduce environmental impacts associated with the use of virgin materials.

7. Local Materials

1 2 3 4 5 6 7 **8** 9 10

Local materials are resources that can be found readily in large quantities at a particular location or area at a certain time. It could also be referred to as material that can be used to fabricate a finished element. These materials, however, could be abundant in some areas but not available in another.

Localizing your supply chain represents a tremendous opportunity to help the environment. When we reduce shipping and storage, we also reduce emissions and energy usage. Sourcing locally not only contributes to green manufacturing but ultimately helps you build consumer confidence.

Utilizing local raw materials, such as homegrown timber, provides jobs for the local community and housing for local residents and ensures that these same residents are invested in their local businesses. This creates an effective and robust partnership that allows local communities to thrive.

CSJMU uses Building Materials available locally to minimize the associated environmental impacts resulting from transportation to build its new facilities.

Cumulative Score	58/70

SUSTAINABLE RESOURCES UTILIZATION

SUSTAINABILITY EVALUATION CHART

Sr. No.	Assessment Areas	Cumulative Score
1.	GOVERNANCE & ACADEMIC	38/40 ✓
2.	BUILDING DESIGN & LANDSCAPING	74/80 ✓
3.	WATER MANAGEMENT PRACTICES	75/80 ✓
4.	AIR QUALITY LEVEL	73/80 ✓
5.	ENERGY USES & SAVING PRACTICES	75/80 ✓
6.	HEALTH & HYGIENE PRACTICES	65/70 ✓
7.	SUSTAINABLE RESOURCES UTILIZATION	58/70 ✓
	Total	**458/500**

Certification Level

Rejection	Certification	Silver	Gold	Platinum
000-100 Points	100-200 Points	200-300 Points	300-400 Points	400-500 Points

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B-802, Mondeal Heights, Near Wide Angle Cinema,
S.G. Highway, Ahmedabad - 380 015, Gujarat, India
+91 79 49000160

#401, 67 W Street , Brooklyn , New York -11222
+ 17186733942

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info@greenmentors.in | www.greenmentors.in

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