Shoolini University

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A SUSTAINABLE TOMORROW TOGETHER

POLICY DEVELOPMENT FOR CLEAN ENERGY TECHNOLOGY 2025



RENEWABLE ENERGY

ENERGY EFFICIENCY

SUSTAINABLE CAMPUS

CLEAN TECHNOLOGIES

Shoolini University of Biotechnology and Management Sciences
Solan, Himachal Pradesh, India – 173229

7.4.4 Policy development for clean energy technology

Shoolini University is committed to promoting clean energy technologies and energy efficiency through research, innovation, institutional practices, and community engagement. The University's Centre of Excellence in Energy Science and Technology (CEEST) supports the development and promotion of sustainable energy solutions, encourages technological innovation, and facilitates knowledge sharing on renewable energy and energy conservation. Through its expertise in solar photovoltaic systems, solar cooking technologies, solar water heating, energy-efficient lighting, and energy management practices, the University contributes to building awareness of practical clean energy applications.

The Centre of Excellence in Energy Science and Technology (CEEST), led by Dr. S. S. Chandel (Professor, Energy Technology), serves as a key hub for clean energy research, technological innovation, and policy advisory. The Centre contributes to regional and state level discussions on renewable energy systems, passive solar architecture, and sustainable building design, in alignment with Himachal Pradesh's Solar House Action Plan and Energy Efficiency Regulations. CEEST provides technical expertise, field data, and training modules that support policymakers, engineers, and local bodies in promoting solar energy utilization, biogas systems, and energy-efficient construction. The University has formulated several institutional policies aligned with national sustainability goals and the United Nations Sustainable Development Goals (SDG 7: Affordable and Clean Energy, SDG 13: Climate Action).

These include:

- **Energy Policy:** The policy promotes renewable energy generation, passive solar building design, and energy conservation measures. It provides a framework for improving energy efficiency and encouraging the adoption of clean energy technologies across campus.
- **Environmental Policy:** The policy supports environmentally responsible campus development through sustainable resource management, pollution prevention, and environmental conservation. It encourages efficient use of water and energy, responsible waste management, and greater awareness of environmental sustainability.
- **Sustainable Investment and Procurement Policies:** These policies promote responsible purchasing and investment decisions that consider environmental sustainability and resource efficiency. They encourage the selection of environmentally

preferable products, ethical sourcing, and appropriate support for green technologies and sustainable operations.

- **Divestment Policy:** The policy aims to align institutional investment decisions with sustainability objectives by addressing investments associated with environmentally harmful or unsustainable activities. Its implementation should be guided by defined investment criteria, transparent decision-making, and documented review procedures.
- **Sustainable Investment Policy:** integrates environmental, social, and governance (ESG) considerations into institutional investment decisions, encouraging investment in renewable energy, energy-efficient technologies, sustainable infrastructure, water conservation, wastewater recycling, and waste management.
- **Sustainable Procurement Policy:** promotes responsible purchasing by incorporating environmental, social, ethical, and economic considerations into procurement decisions. It encourages the acquisition of energy-efficient equipment, conservation of natural resources, reduction of greenhouse gas emissions, responsible waste management, ethical supplier practices, and respect for labour and human rights.
- **Policy on Waste Disposal and Management of Hazardous Materials:** This policy establishes procedures for the safe collection, segregation, storage, transportation, and disposal of hazardous and non-hazardous waste. It covers chemical, biomedical, electronic, solid, and recyclable waste, promotes waste minimisation and recycling, and emphasises regulatory compliance, safe handling, and environmental protection.
- **Policy on Waste Disposal – Landfill Management:** This policy aims to minimise the volume of waste sent to landfills through a structured waste-management hierarchy based on reduction, reuse, recycling, and responsible disposal. It promotes source segregation, on-campus composting, plastic-free initiatives, bamboo and wooden waste-collection baskets, waste audits, and collaboration with authorised waste-management agencies.
- **Policy for Minimisation of Plastic Use:** The policy seeks to reduce single-use plastics and encourage sustainable alternatives, including reusable, biodegradable, and compostable materials. It promotes green procurement, plastic-waste segregation and recycling, awareness campaigns, bottle-refilling facilities, and the use of reusable materials across academic, administrative, residential, and event-related activities.

- **Ethical Sourcing of Food and Supplies Policy:** This policy supports responsible sourcing of food and other supplies by incorporating sustainability and ethical considerations into procurement practices. It complements the University's broader sustainability framework by encouraging responsible supplier engagement and purchasing decisions that consider environmental and social responsibilities.
- **Ban of single use plastic notification** The university already has implemented a notification for ban on single use plastics in the campus.
- **E-Waste Policies:** encouraging circular energy practices and resource recovery.

Energy Policy

2024

Shoolini University of Biotechnology and Management Sciences, Bajhol,

Solan, Himachal Pradesh, India-173229

shooliniuniversity.com/center-of-excellence-in-energy-science-and-technology

1. Preamble

Shoolini University is dedicated to advancing the United Nations Sustainable Development Goals (SDGs) through its comprehensive Energy Policy, which aims to create a sustainable, energy-efficient, and environmentally responsible green campus. This policy extends to all aspects of the University's operations, including building design and renovation, transportation, environmental management, water conservation, and other institutional activities that contribute to sustainability and responsible resource utilization.

2. Policy Objectives

- To enhance thermal comfort, energy efficiency, and water conservation while reducing energy use in all new Shoolini University buildings designed with solar passive and eco-friendly technologies.
- To install solar rooftop systems to promote renewable energy generation on campus
- To install LED bulbs and other energy-saving devices in the campus.
- To install solar water heating and solar cooking systems in all the residential and hostel areas of the University to save LPG and conventional fuels.
- To reduce CO_2 emissions through all possible measures and promote waste-to-energy initiatives for sustainable resource use.
- Encourage students and staff participation in energy-saving initiatives and ensure affordable, reliable, sustainable energy access for all.

3. Applicability

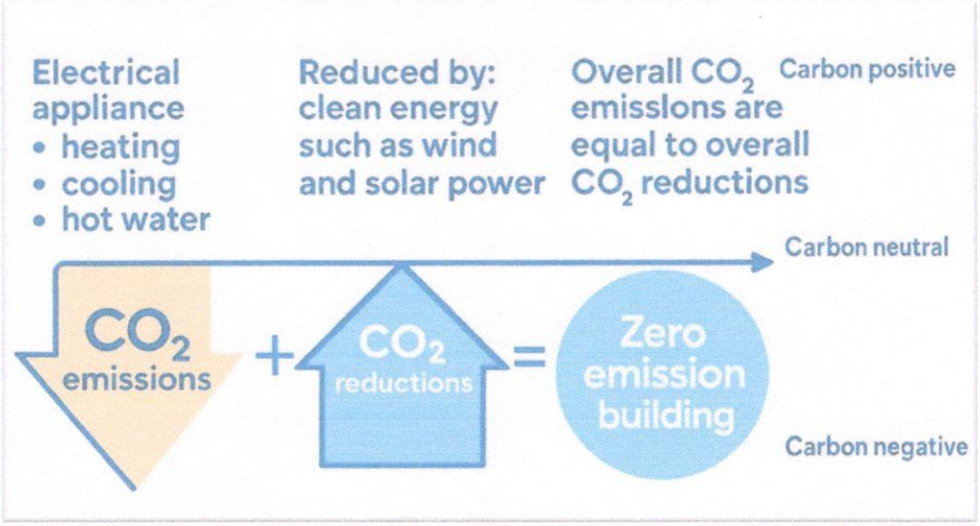
This policy applies to all departments, extensions, and surrounding villages of Shoolini University, involving students, faculty, and staff who are encouraged to actively participate in achieving the objectives of the energy policy.

4. Policy on Energy Efficient Passive Solar Buildings for Zero Carbon Emission

I. Introduction

Shoolini University is firmly committed to achieving Net Zero Emissions by 2028 through the implementation of energy-efficient and passive solar building designs that minimize energy consumption and carbon output. Guided by its Energy and Environment Policies, the university ensures that all new constructions and retrofitting projects integrate solar architecture, renewable energy systems, and sustainable materials to reduce dependence on fossil fuels. This

approach supports Shoolini's broader vision of developing a carbon-neutral, resilient, and sustainable campus, serving as a model for zero-carbon building practices in higher education.



II. Carbon neutrality in buildings

Zero-carbon buildings are those that generate no net annual greenhouse gas emissions from direct fuel combustion (such as natural gas) or electricity use associated with the operation of building-integrated systems and services.

- Building-incorporated services include all energy needs and systems within the structure, such as the thermal envelope, heating and cooling, water heating, built-in appliances, lighting, shared infrastructure, and renewable energy systems.
- Zero-carbon buildings must comply with defined standards for energy efficiency and on-site renewable energy generation.

Carbon-positive buildings go a step beyond zero-carbon by generating surplus energy on-site producing more power than they consume and exporting the excess back to the grid through net metering systems. These projects play a vital role in reducing overall carbon intensity and mitigating the negative impacts of traditional construction and lifestyle practices. Additionally, they help offset emissions in areas where achieving complete carbon neutrality is not feasible, thereby contributing to a more sustainable built environment and limit global warming.

III. Policy Statement, Strategy & Guidelines

a) Policy Statement

Shoolini University is committed to developing an environmentally responsible and energy-efficient campus. To achieve this, the University mandates that all new buildings be designed and constructed according to passive solar architecture principles and integrate energy-efficient building technologies as per the Solar House Action Plan and Policy of the Government of Himachal Pradesh. Additionally, the feasibility of retrofitting existing buildings with passive solar features and systems will be assessed to improve energy efficiency and reduce overall energy consumption. Necessary actions for implementation will be prioritized to ensure timely progress toward a low-carbon campus.

b) Coordination & Implementation Guidelines

i. The Centre of Excellence in Energy Science and Technology (CEEST) at Shoolini University will serve as the nodal agency to coordinate and oversee the Solar Building Action Plan for the University.

ii. A Technical Project Management Cell (TPMC) has been established within CEEST, led by the Director (Energy) as the Principal Coordinator. The TPMC includes experts in solar building design, renewable technology analysis, and construction management, along with the Director (Estate), architects, and civil/electrical engineering teams responsible for implementation and maintenance.

iii. A Computer-Aided Solar Passive Design Cell will be created, comprising an architect, structural and design engineers, an executive engineer, and a software programmer skilled in AutoCAD, seismic analysis, and building performance modeling. This cell will utilize solar radiation data, forecasting tools, and artificial intelligence techniques to optimize design efficiency and predict energy loads.

iv. All newly constructed buildings will function as live laboratories for energy education, research, and innovation, enabling hands-on learning and applied research for CEEST students and faculty.

v. CEEST will conduct training and orientation programmes for the University's technical, architectural, and engineering divisions to encourage the adoption of innovative and sustainable building technologies.

vi. Extending beyond the campus, CEEST will also promote passive solar design and sustainable housing practices in nearby villages as part of its community outreach and social responsibility initiatives. It will provide technical support to the Himachal Pradesh housing agencies to strengthen policy implementation and sustainable construction standards.

c) Strategy

To achieve zero carbon building standards, all carbon emissions must be offset through passive solar design, reduction in conventional energy consumption, and on-site renewable energy generation. This includes installing rooftop solar systems, waste-to-energy units, and adopting sustainable design principles.

Key strategies include:

- Integrating energy efficiency measures with renewable energy systems.
- Selecting building sites that maximize solar access, passive heating, and natural cooling.
- Incorporating passive design techniques to minimize overall energy demand.
- Implementing rainwater harvesting and water conservation systems, particularly for hot water use.
- Utilizing low-embodied-energy and sustainable materials that complement passive solar architecture.

d) Guidelines

Maximizing energy efficiency reduces the amount of renewable energy required to achieve carbon neutrality and enhances sustainability at multiple levels:

- Physical: Minimizes roof area required for solar PV or other renewable systems.
- Economic: Reduces system size and installation costs.
- Environmental: Decreases material usage and the environmental impact of system manufacturing.

5. Review

The Energy Policy will be reviewed from time to time and updated whenever required.

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ENVIRONMENT POLICY

2025



Shoolini University of Biotechnology and Management Sciences,

Bajhol, Solan, Himachal Pradesh, India-173229

Shoolini University

Preamble

Shoolini University is committed to environmental protection and the United Nations Sustainable Development Goals (SDGs). This Environment Policy establishes a framework for promoting a sustainable, energy-efficient, and environmentally responsible campus. It covers University operations and activities, including construction and renovation, transportation, energy use, water conservation, wastewater management, and waste management.

Policy Objectives

The objectives of this Policy are to:

- Protect and improve the environment within the University campus and its surrounding areas.
- Establish systematic waste management practices, including waste reduction, reuse, recycling, and responsible disposal.
- Promote water conservation through rainwater harvesting, groundwater recharge, and efficient water use.
- Improve energy efficiency, encourage renewable energy adoption, and explore opportunities for energy recovery from waste.
- Promote wastewater treatment and reuse wherever feasible.
- Provide training and information on energy conservation and environmental protection.
- Increase environmental awareness among students, faculty, employees, and other stakeholders.
- Reduce plastic consumption, discourage single-use plastics, and encourage environmentally friendly alternatives.
- Support forest and ecosystem protection through awareness initiatives and preventive measures related to forest fires.

Scope and Applicability

This Policy applies to all schools, departments, centres, offices, facilities, and extensions of Shoolini University. Students, faculty, employees, and other stakeholders are encouraged to adopt environmentally responsible practices and participate in initiatives that support the objectives of this Policy.

Implementation and Responsibilities

The Centre of Excellence in Energy Science and Technology (CEEST) shall serve as the coordinating agency for supporting the implementation of this Policy, reviewing environmental objectives, and facilitating coordination among relevant University units.

All schools, departments, administrative offices, and campus service units are expected to support the Policy within their respective areas of responsibility. Implementation activities may include environmental awareness programmes, energy conservation measures, water management initiatives, waste reduction, and monitoring of resource use.

Communication and Awareness

The University shall communicate this Policy and relevant environmental initiatives to students, employees, and other stakeholders through appropriate institutional communication channels, including Radio Shoolini, Shoolini TV, and the University website. Awareness programmes and training activities may be organised to encourage participation in environmental protection and sustainable resource management.

Monitoring, Review, and Revision

CEEST, in coordination with relevant University units, shall periodically review the implementation of this Policy and its environmental objectives. Reviews should consider progress, operational requirements, and opportunities for continuous improvement. The Policy shall be revised or updated every three years to maintain its relevance and effectiveness in supporting the University's environmental commitments.

Institutional Commitment

Shoolini University is committed to promoting responsible environmental practices across its operations and encouraging the University community to contribute to a cleaner, resource-efficient, and sustainable campus. All relevant units and stakeholders are encouraged to work collectively towards the effective implementation of this Policy.



REGISTRAR

DIVESTMENT POLICY

Policy Created: 2021

Policy Revised: 2025



Shoolini University of Biotechnology and Management Sciences,

Solan, Himachal Pradesh, India-173229

Shoolini University

Purpose

Shoolini University is committed to responsible energy use, environmental sustainability, and reducing carbon emissions associated with its operations. This Divestment Policy, forming part of the University's Energy Policy and complementing its Sustainable Investment Policy and Environment Policies, provides a framework for reducing dependence on coal- and oil-based energy systems and promotes a gradual transition towards renewable energy and energy-efficient alternatives that advance climate-change solutions.

Scope

This policy applies to all academic and administrative departments, divisions, and business units involved in investments, procurement, energy planning, transportation, or other financial and operational decisions on behalf of the University. It is relevant to employees and personnel responsible for such decisions.

Policy Statement

The University seeks to discourage dependence on coal- and oil-based energy systems and to promote renewable energy, energy efficiency, and lower-carbon alternatives. Divestment actions are supported by the University's Energy Policy, Environment Policies, and Sustainable Investment Policy. The policy encourages responsible decisions that reduce avoidable fossil-fuel use and support the transition towards cleaner campus operations.

Policy Objectives

- Reduce dependence on fossil-fuel-based energy and carbon-intensive systems across campus operations.
- Encourage investment and operational choices that support renewable energy and climate-change solutions.
- Promote energy efficiency and responsible energy consumption in University facilities.
- Encourage lower-carbon alternatives for campus transportation and cooking requirements.
- Integrate sustainability considerations into relevant investment, procurement, and financial decisions.

Implementation Measures

Fossil-fuel divestment and energy planning

The University discourages dependence on coal- and oil-based energy systems and encourages a gradual shift towards renewable and energy-efficient alternatives, consistent with its Energy Policy and Sustainable Investment Policy.

Solar energy

The University encourages the use of solar energy for electricity generation as an alternative to electricity sourced from coal-based thermal power plants, where feasible.

Solar steam for community cooking

The University encourages the use of a concentrated solar-steam community cooking system serving approximately 1200 students in University hostels, with the objective of reducing LPG consumption.

Campus transportation

The University discourages fossil-fuel-based public transportation within the campus and encourages the use of electric carts for campus mobility.

Biogas for cooking

The University encourages the use of biogas as an alternative to LPG for cooking, where technically and operationally feasible.

Sustainable investment decisions

The Sustainable Investment Policy guides the University's approach to investments in sustainable energy assets and divestment from fossil-fuel-based energy dependencies.

Roles and Responsibilities

Centre of Excellence in Energy Science and Technology (CEEST): Serves as policy document owner and supports energy-related sustainability initiatives and review of relevant measures.

Comptroller of Finance: Considers the policy in relevant financial and investment decisions within the office's remit.

Central Purchase Committee (CPC): Considers relevant sustainability and energy-efficiency factors in procurement decisions, consistent with university policies and procedures.

Academic and administrative departments: Support implementation by considering the policy in applicable operational, procurement, energy, and financial decisions.

Monitoring and Review

Relevant University offices should review implementation through available energy-management reviews, investment and procurement processes, and records of initiatives supporting renewable energy and reduced fossil-fuel dependence. The policy should be reviewed periodically every three years by the designated offices to maintain alignment with the University's Energy Policy, Environment Policies, and Sustainable Investment Policy. Any revision or formal approval should follow the University's applicable governance procedures.

REGISTRAR

Sustainable Investment Policy

2025

Shoolini University of Biotechnology and Management Sciences, Solan, Himachal Pradesh, India-173229

Policy Overview and Purpose

Shoolini University recognises that its financial assets and endowment portfolios should be managed responsibly to promote environmental sustainability, social responsibility, and sound governance (ESG). The University aims to align its investment decisions with the United Nations Sustainable Development Goals (SDGs) and its institutional mission of responsible leadership. Through this approach, the University seeks to encourage sustainable investment practices, support long-term value creation, and contribute positively to society and the environment while maintaining prudent financial management.

Vision

Shoolini University's vision for sustainable investment is guided by the definition of sustainable development articulated by the United Nations World Commission on Environment and Development in 1987: *"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."* Recognising the importance of this principle, the University acknowledges that responsible investment decisions must balance three key dimensions: **risk, financial return, and positive impact**.

Policy Objectives

The objectives of this policy are to:

I. Integrate environmental, social, and governance considerations into investment decisions and financial management.

II. Encourage investments that support renewable energy, energy efficiency, water conservation, wastewater recycling, sustainable infrastructure, and waste management.

III. Minimise exposure to activities associated with significant environmental harm, unethical business practices, and unacceptable social impacts.

IV. Support the University's stated commitment to achieving net-zero emissions by 2030, subject to the approved institutional climate action roadmap.

V. Promote responsible financial management that balances financial returns, risk management, and measurable sustainability benefits.

VI. Encourage investment decisions that contribute to relevant UN Sustainable Development Goals, particularly SDG 6 (Clean Water and Sanitation), SDG 7 (Affordable and Clean Energy), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), and SDG 15 (Life on Land).

VII. Establish mechanisms for monitoring, reporting, reviewing, and continuously improving sustainable investment practices.

Scope and Applicability

This policy applies to financial assets and investment activities managed directly by Shoolini University or through authorised external financial managers, subject to applicable laws, financial regulations, and institutional governance requirements.

The scope may include:

- University endowment funds, where applicable.
- Institutional reserves and surplus funds.
- Cash-management arrangements and fixed deposits.
- Financial investments made through authorised instruments.
- Investments in renewable energy and resource-efficiency infrastructure.
- Capital expenditure supporting sustainable buildings and campus infrastructure.
- Eligible green bonds and other sustainability-linked financial instruments.

The policy shall be implemented in a manner proportionate to the nature of each investment, the availability and reliability of ESG data, the associated financial risks, and the maturity of relevant assessment methodologies.

Sustainable Investment Approach

Identification of Sustainability Risks and Opportunities

The University shall seek to identify environmental; social, governance, and climate-related risks and opportunities associated with its investment decisions. This approach will support informed financial planning, risk mitigation, and long-term value creation.

Relevant considerations may include greenhouse gas emissions, energy consumption, water use, waste generation, biodiversity impacts, labour practices, human rights, business ethics, and regulatory compliance.

Where appropriate, the University may consider emerging sustainability standards, climate-related financial risks, technological developments, and opportunities for investment in low-carbon and resource-efficient solutions.

Integration of ESG Considerations

Environmental, social, and governance considerations should form part of the investment appraisal and decision-making process, proportionate to the size, nature, and risk profile of the proposed investment.

The assessment may consider:

- **Environmental factors:** Carbon emissions, renewable energy use, energy efficiency, water conservation, pollution prevention, waste management, and biodiversity protection.

- **Social factors:** Human rights, labour standards, occupational health and safety, equality, diversity, inclusion, and community well-being.
- **Governance factors:** Ethical business conduct, anti-corruption measures, transparency, accountability, regulatory compliance, and management of conflicts of interest.

Where relevant information is available, investment proposals should be assessed against these factors before approval. The rationale for material investment decisions and any identified sustainability risks should be documented.

Alignment with Institutional Sustainability Commitments

The University shall seek to align its investment decisions with its Energy and Environment Policy, applicable institutional sustainability commitments, and approved climate action objectives. The University's stated commitment to net-zero emissions by 2030 should guide the development of appropriate interim targets, implementation measures, and monitoring arrangements. Investment decisions should support energy conservation, renewable energy adoption, efficient resource use, and reductions in the environmental footprint of campus operations.

Investment in Renewable Energy and Sustainable Infrastructure

Shoolini University recognises investment in renewable energy and resource-efficient infrastructure as an important component of its sustainability strategy.

The University has undertaken initiatives involving renewable energy generation, biogas utilisation, solar thermal applications, wastewater treatment, and sustainable building practices. These initiatives provide an institutional foundation for strengthening the integration of sustainability considerations into future capital allocation and infrastructure planning.

Priority areas for consideration include:

Renewable Energy: Investment in solar photovoltaic systems, solar thermal technologies, biogas systems, and other technically and financially viable renewable energy solutions.

Energy Efficiency: Improvements to building insulation, passive solar design, energy-efficient lighting, heating systems, and other measures that reduce energy demand.

Water Conservation and Recycling: Investment in wastewater treatment, water reuse, efficient water infrastructure, rainwater harvesting, and groundwater recharge, where appropriate.

Sustainable Buildings: Development and renovation of buildings that incorporate climate-responsive design, suitable sustainable materials, natural lighting, thermal comfort, and resource efficiency.

Waste Management and Circular Economy: Support for waste segregation, recycling, organic waste processing, resource recovery, and other initiatives that reduce waste generation and environmental impacts.

Green and Sustainable Financial Instruments: Subject to financial due diligence, regulatory requirements, and institutional approval, the University may consider eligible green bonds, sustainability bonds, and other financial instruments with credible environmental or social objectives.

All proposed investments should undergo appropriate financial, technical, operational, and sustainability assessments. The University should not claim quantified financial or environmental benefits unless these are supported by verifiable evidence.

Monitoring, Measurement, and Reporting

The University shall seek to establish a transparent monitoring framework to evaluate the financial performance and sustainability outcomes of investments covered by this policy.

Monitoring indicators may include:

- Proportion of eligible investments assessed using ESG criteria.
- Investment allocated to renewable energy and energy-efficiency projects.
- Renewable electricity generated and utilised, where measured.
- Energy savings associated with efficiency improvements, where verified.
- Volume of wastewater treated and reused, where relevant.
- Investment in sustainable buildings and resource-efficient infrastructure.
- Progress against approved climate-related investment objectives.
- Identified ESG risks, mitigation actions, and compliance issues.

All employees and any personnel responsible for the investments, financial decisions on behalf of the university, unless otherwise exempted in accordance with this Policy.

Review

The University should periodically review its progress against relevant sustainability objectives and identify opportunities for improvement.

Contact Information: directorenergy@shooliniuniversity.com

REGISTRAR

Sustainable Procurement Policy

2025



Shoolini University of Biotechnology and Management Sciences,

Solan, Himachal Pradesh, India-173229

Shoolini University

Purpose

Shoolini University is committed to integrating sustainability into its institutional operations, including the sourcing and procurement of goods, materials and services. This policy establishes a framework for responsible purchasing that considers economic value alongside environmental protection, social responsibility, ethical conduct and compliance with applicable requirements.

Scope

This policy applies to all academic and administrative departments, divisions, business units, employees and other personnel involved in purchasing goods or services on behalf of Shoolini University, unless an applicable exemption is authorised under university procedures.

Core Commitments

- Comply with applicable laws, regulations and institutional requirements.
- Promote high standards of economic, social, ethical and environmental performance.
- Identify and mitigate risks associated with procurement activities.
- Communicate sustainability expectations to internal stakeholders and suppliers.
- Consider value, quality, service, and environmental and social impacts in purchasing decisions.

Sustainable Procurement Principles

Procurement decisions should consider the necessity of the purchase, budget availability, product or service quality, delivery timelines, supplier reliability, and relevant sustainability factors. Departments should avoid unnecessary or duplicate purchases and maintain appropriate records and approvals.

Environmental Responsibility

- Comply with applicable environmental laws and requirements.
- Use responsible waste-management and disposal practices.
- Seek opportunities to reduce greenhouse gas emissions and other harmful emissions.
- Conserve non-renewable natural resources and encourage renewable energy, including solar photovoltaic systems, biogas and solar thermal water heating.

Energy Conservation

Energy-consuming equipment procured by the University should comply with applicable energy-efficiency standards prescribed by the Bureau of Energy Efficiency (BEE), Government

of India. Energy performance should be considered alongside price, quality, suitability and lifecycle use.

Supplier Sustainability Expectations

The University expects suppliers to support responsible business practices and work towards standards consistent with its sustainability commitments. Supplier assessment may consider legal compliance, environmental responsibility, ethical conduct, labour practices, operational capacity and previous performance.

Business Ethics and Integrity

Observe applicable domestic and international laws governing ethical business practices.
Maintain procedures to prevent money laundering, fraud, bribery and corruption.
Identify and manage conflicts of interest.
Maintain appropriate data-security practices.

Labour and Human Rights

Comply with applicable labour and human-rights requirements and relevant principles of the International Labour Organization, the UN Global Compact and the Universal Declaration of Human Rights.
Prohibit slavery and forced, bonded or child labour throughout the supply chain.
Prevent unlawful discrimination and harassment and support a safe, inclusive working environment.

Community Development

The policy encourages suppliers to provide employees with at least a living wage and, where appropriate, collaborate with local governments and communities to improve educational, cultural, economic and social well-being. The University recognises that improving procurement performance is an ongoing process and values supplier contributions.

Roles and Responsibilities

Buyers and Departmental Purchasers

Follow this policy and applicable University, government and sponsor requirements.

- Complete required training, forms, statements and certifications.
- Use authorised procurement methods and maintain secure purchasing practices.
- Confirm budget availability and obtain approvals before committing expenditure.

- Ensure goods and services are necessary; avoid unnecessary or duplicate acquisitions.
- Document and reconcile transactions and promptly report improper personal purchases.

Department Authorisers: Deans and Heads of Departments

- Identify authorised departmental buyers and ensure they understand their responsibilities.
- Review and approve purchases as required and confirm that budget or grant funds are available.
- Retain transaction records in accordance with applicable requirements.
- Encourage consideration of preferred and eligible small or disadvantaged suppliers where applicable.
- Ensure purchases are necessary, documented and within allocated budgets.

Procurement Services, CPC, Comptroller of Finance and CEEST

- Maintain procurement policies, guidance and procedures, including authorised exceptions.
- Provide sustainable procurement guidance, a Procurement Manual, training, documentation and tools.
- Oversee compliance with procurement conduct and conflict-of-interest requirements.
- Maintain and review preferred-supplier arrangements and strategic sourcing processes.
- Guide departments on purchasing methods and approve purchase orders as required.
- Help resolve supplier-customer disputes and monitor implementation of this policy.

Supplier Selection and Preferences

Preferred Suppliers

Preferred-supplier status may be granted where commercial pricing and legal terms have been established, and the arrangement has received required approval from the Central Purchase Committee (CPC) and Vice Chancellor. Use of preferred suppliers can support value for money, simplify ordering, improve service and reduce repeated sourcing and negotiation effort.

Internal Suppliers

Departments should consider University internal suppliers, such as the bookstore, computer store and facilities management, before seeking external suppliers where suitable goods or services are available. The policy identifies administrative efficiencies as a potential benefit of using internal suppliers.

Responsible Suppliers

A supplier considered for a university contract or purchase order should have legal authority to conduct business, a satisfactory integrity record, appropriate financial and operational capacity, and acceptable performance history where available. Buyers should consider warning signs, including repeated non-performance, business instability, applicable sanctions or tax delinquency, and verify supplier credentials before engagement.

Purchasing Methods and Controls

Purchases should use the University's recommended procurement methods, particularly purchase orders, to support compliance with state, central-government and institutional requirements and minimise institutional risk. Purchases, except those made through internal suppliers as described in the policy, must follow the Purchasing Policy, Procurement Manual, Business and Travel Expense Policy and other applicable University policies.

Purchase Orders

- A purchase order (PO) is prepared and approved through the University's financial system and issued to the supplier, identifying goods or services, quantities and agreed prices.
- A PO should be issued before goods or services are received and before the invoice is received.
- Service purchases must be supported by a contract.
- Purchases requiring special oversight—including hazardous materials, live animals, lasers and radioactive devices—must be placed on a PO regardless of amount.
- Invoices should reference the relevant PO number to support compliance, billing and accounting.

Exceptions and Expense Reimbursements

Any procurement method outside those specified in the policy requires prior approval from Procurement Services. Use of personal funds for goods may be permitted where logistical or exceptional circumstances prevent use of a PO; purchases exceeding the micro-purchase threshold are discouraged, and services may not be procured with personal funds. Reimbursement submissions must follow the Business and Travel Expense Policy.

Ethical Standards and Conflict of Interest

All procurement transactions must be governed by ethical business standards and the University's Code of Business Ethics and Conduct. Suspected violations should be reported to the Vice Chancellor or raised at a Central Purchase Committee meeting. Disciplinary action may be taken under university policy, up to and including termination of employment.

Conflict of Interest

Buyers, department authorisers and other personnel who can influence purchasing decisions, contract negotiations, supplier relationships or contract management must avoid actual, potential or perceived conflicts of interest. A conflict may arise where an employee, associate, spouse, partner or immediate family member has a financial interest in, owns, operates or works for a business dealing with the University.

An individual must not review, approve, control or influence a purchase or business relationship from which they or an immediate family member may personally benefit. Questions about actual or perceived conflicts of interest should be referred to the Central Purchase Committee for evaluation and guidance.

Implementation and Compliance

All departments and personnel covered by this policy are responsible for applying its requirements to procurement activities. Departmental authorisers and Procurement Services should ensure that purchases are justified, authorised and documented. Supplier selection and procurement decisions should consider relevant sustainability, quality, cost, performance and compliance factors.

Procurement exceptions require prior approval from Procurement Services. Non-compliance with procurement and ethical standards may lead to action under applicable University procedures. The policy owner and responsible offices may provide clarifications and guidance to support consistent implementation.

Review

The policy should be reviewed periodically every three years by the CEEST offices to maintain alignment with the University's

REGISTRAR

Policy on Ethical Sourcing of Food and Supplies 2024



Shoolini University of Biotechnology and Management Sciences,

Solan, Himachal Pradesh, India-173229

1. Introduction

Shoolini University's Sustainable Ethical Sourcing Policy emphasizes key focus areas such as Sustainability, Quality Product Selection, Seasonality, Provenance, Equal Opportunity, and Ethical Dealings with external supplier agencies. The University collaborates with a diverse network of suppliers to meet its day-to-day procurement requirements responsibly and efficiently. This policy underscores the importance of building mutually beneficial and long-term partnerships to ensure the quality, safety, and reliability of all food and non-food products across the entire supply chain beginning from the assessment of requirements and product selection to the evaluation of suppliers and the timely delivery of goods meeting the desired quality standards.

In alignment with its commitment to responsible consumption and production (SDG 12), the University also promotes sustainable operational practices. It employs a solar cooking system that utilizes renewable solar energy to significantly reduce LPG consumption and carbon emissions.

2. Policy Statement

Shoolini University shall procure all food products, materials, and services ethically and sustainably, in compliance with government regulations, food safety laws, and institutional procurement guidelines.

The university ensures that sourcing practices:

- Comply with applicable Food Safety and Standards Authority of India (FSSAI) norms
- Uphold fairness, transparency, and accountability
- Encourage local sourcing from farmers and micro-enterprises where feasible
- Promote value for money without compromising on safety, quality, or ethical considerations.

3. Aims and Objectives

The Ethical Sourcing Policy of Shoolini University aims to:

- Ensure that all food and supply procurement processes follow ethical and sustainable standards.
- Promote transparency and trust between the university and its suppliers.
- Evaluate suppliers on environmental, social, and governance (ESG) parameters.

- Reduce carbon emissions by minimizing transport distances ("food miles").
- Support local producers and encourage agro-based entrepreneurship in the region.
- Foster green initiatives such as campus-based organic farming and waste-to-compost programs.
- Promote awareness among campus stakeholders on responsible consumption practices.

4. Scope of the Policy

This policy applies to:

- Procurement of food, beverages, and catering services;
- Purchase of stationery, maintenance materials, and general consumables;
- Engagement with vendors, contractors, and service providers supplying goods or food-related items to Shoolini University.

The policy covers all transactions made through university-approved systems and extends to partnerships with suppliers who align with Shoolini sustainability framework.

5. Supplier Expectations

Shoolini University expects all suppliers and contractors to:

- Adhere to ethical business practices, avoiding corruption, child labor, or discrimination.
- Ensure safe and fair working conditions in compliance with Indian labor laws.
- Maintain full traceability of food items, ensuring authenticity and freshness.
- Follow relevant FSSAI Regulations including:
  - Food Products Standards & Additives (2011)
  - Contaminants, Toxins & Residues (2011)
  - Packaging & Labelling (2011)
  - Nutraceuticals & Special Dietary Uses (2016)
  - Organic Foods (2017)
  - Fortification of Foods (2018)
- Supply materials that are environmentally responsible, recyclable, or biodegradable where possible.
- Provide invoices and documentation transparently with each supply transaction.
- Participate in sustainability awareness and supplier engagement programs organized by the university.

Failure to comply with ethical sourcing standards may lead to review, suspension, or removal from the approved supplier list.

6. Relationship with Existing Policies

This policy complements and aligns with:

- Shoolini University Procurement Manual
- Green Campus Policy and Sustainability Charter
- Waste Management and Recycling Policy
- Campus Food Safety and Hygiene Standards

Through this Ethical Sourcing Policy, Shoolini University reaffirms its dedication to creating a responsible, fair, and sustainable food ecosystem. This initiative integrates ethics into procurement, sustainability into operations, and awareness into education empowering every stakeholder to contribute toward a more equitable and environmentally conscious future.

Review

This policy shall be communicated to students, employees, and other relevant stakeholders through the University's internal communication channels, Radio Shoolini TV, and the official institutional website. The policy, its objectives, and associated targets shall be reviewed periodically to ensure their continued relevance, effectiveness, and alignment with applicable regulatory requirements.

REGISTRAR

Policy on Waste Disposal and Management of Hazardous Materials

2024



Shoolini University of Biotechnology and Management Sciences,

Solan, Himachal Pradesh, India-173229

1. Introduction

Shoolini University is committed to fostering an environmentally responsible campus through sustainable waste management practices that prevent pollution, minimize risk, and promote campus hygiene. The Waste Disposal and Hazardous Materials Policy establishes a systematic framework for the collection, segregation, storage, transport, and disposal of hazardous and non-hazardous waste generated on campus. The policy supports Shoolini University broader sustainability vision and aligns with the UN Sustainable Development Goals (SDG 12 and SDG 13), ensuring that waste management practices contribute to responsible production, environmental protection, and climate resilience.

2. Policy Statement

The University shall ensure that all categories of waste—biomedical, chemical, e-waste, solid, and recyclable materials—are collected, handled, transported, and disposed of in a scientific, safe, and environmentally compliant manner.

All operations shall conform to the provisions of:

- The Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016
- The Biomedical Waste Management Rules, 2016
- The Solid Waste Management Rules, 2016
- The E-Waste Management Rules, 2022
- The Plastic Waste Management (Amendment) Rules, 2022

3. Objectives of the Policy

- To establish a systematic waste management process for all categories of waste.
- To ensure compliance with environmental and safety regulations.
- To minimize waste generation through reduce, reuse, and recycle (3Rs) strategies.
- To promote safe handling, segregation, and disposal of hazardous materials.
- To enhance campus cleanliness, hygiene, and environmental awareness.
- To encourage the use of green alternatives and eco-friendly materials in laboratories and operations.

4. Scope of the Policy

This policy applies to:

- All teaching and research laboratories generating chemical, biological, or electronic waste.
- All administrative offices, hostels, and canteens generating solid or recyclable waste.
- Maintenance and housekeeping units managing municipal and sanitary waste.
- External contractors or agencies engaged in waste collection or treatment.

5. Categories of Hazardous Waste

Hazardous waste generated at the university is categorized based on its characteristics and potential environmental impact:

5.1 Ignitable Waste

- Flammable liquids (e.g., alcohols, acetone, ethyl acetate, mineral spirits)
- Oxidizers (e.g., nitrates, perchlorates, bromates, peroxides)
- Organic peroxides (e.g., benzoyl peroxide, methyl ethyl ketone peroxide)

5.2 Corrosive Waste

- Liquids with pH <2 or >12.5 (e.g., hydrochloric acid, sulfuric acid, sodium hydroxide)
- Acids and bases capable of corroding metals or containers

5.3 Reactive Waste

- Materials reacting violently with water or producing toxic gases (e.g., sodium, potassium, cyanides, peroxides)
- Compounds prone to explosive polymerization or crystal formation

5.4 Toxic Waste

- Substances leaching harmful elements such as arsenic, mercury, cadmium, chromium, lead, or pesticides during disposal processes.

Note: Disposal of hazardous substances into sinks, drains, or sewage systems is strictly prohibited.

6. Biomedical Waste Management

Shoolini University follows a robust biomedical waste management protocol in accordance with the Biomedical Waste Management Rules (2016).

- Biomedical waste is segregated at the point of generation using color-coded containers (Yellow, Red, Blue, White) as per regulatory norms.
- A fixed collection point is maintained at the University Health Centre, where waste is temporarily stored.
- The waste is collected weekly by the authorized agency Enviro Engineers Pvt. Ltd., recognized by the Himachal Pradesh State Pollution Control Board.
- The waste is then transported to the Sandli Biomedical Waste Treatment Plant for eco-safe processing and disposal.
- The designated Biomedical Waste Management In-Charge, Dr. Rohit Sharma, oversees compliance, record-keeping, and coordination with the authorized disposal agency.

7. Waste Collection and Disposal System

Shoolini University has implemented a systematic and sustainable process for waste collection and disposal:

Segregation at Source:

- Waste is segregated at the generation point labs, hostels, canteens, or administrative areas into biodegradable, non-biodegradable, recyclable, and hazardous categories.

Collection Mechanism:

- The University uses handcrafted bamboo wooden "Kilta" baskets, symbolizing sustainability and Himachali cultural heritage, for waste collection.
- These baskets are durable, renewable, and environmentally friendly, minimizing plastic use on campus.

Storage and Labeling:

- Dedicated color-coded and labeled bins are provided for different waste categories.
- Special containers are installed in laboratories and health centers for hazardous and biomedical waste.

Authorized Disposal:

- General waste is sent for segregation and recycling, while hazardous and biomedical waste is handed over to licensed agencies for safe treatment and disposal.

8. Training and Awareness

To ensure effective implementation, Shoolini University conducts:

- Workshops and training programs for laboratory staff and students on hazardous waste handling.
- Campus-wide awareness campaigns under the themes “Green Shoolini,” “Zero Waste Campus,” and “Clean Lab Initiative.”
- Emergency drills and safety orientations to prevent accidents or chemical exposure incidents.

Shoolini University’s waste management practices reflect its strong dedication to sustainability, environmental compliance, and public health. Through a combination of traditional, eco-friendly collection methods, scientific waste handling, and continuous education, the University ensures a clean, safe, and green campus for all stakeholders.

REGISTRAR

Policy on Waste Disposal – Landfill Management

2024



Shoolini University of Biotechnology and Management Sciences,

Solan, Himachal Pradesh, India-173229

1. Preamble

Shoolini University is committed to sustainable waste management practices that protect the environment, reduce greenhouse gas emissions, and promote responsible consumption. The Landfill Policy aims to minimize the volume of waste sent to landfills by encouraging waste segregation, recycling, composting, and reuse. As part of its broader sustainability framework, the University prioritizes the "Zero Waste to Landfill" vision, ensuring that only non-recyclable and inert materials reach final landfill destinations. This policy is aligned with the Solid Waste Management Rules (2016) and the Himachal Pradesh State Pollution Control Board guidelines.

2. Policy Statement

Shoolini University shall implement and maintain a structured and environmentally responsible waste disposal system that:

- Minimizes landfill use through effective segregation and recovery.
- Promotes campus-wide awareness on sustainable waste practices.
- Ensures scientific disposal of residual waste in compliance with environmental regulations.
- Supports the University's commitment to becoming a carbon-neutral and zero-waste campus.

3. Objectives of the Policy

To establish a systematic process for waste disposal, ensuring minimal waste ends up in landfills.

- To promote waste segregation at source and strengthen recycling initiatives.
- To reduce the University's carbon footprint by optimizing waste management operations.
- To ensure compliance with government waste management regulations.
- To develop awareness and accountability among students, staff, and stakeholders toward waste reduction and responsible disposal.

4. Scope of the Policy

This policy applies to:

- All academic and research departments, laboratories, offices, and canteens.

- Student hostels and residential areas.
- Maintenance, landscaping, and construction units.
- Vendors and contractors involved in waste collection, transportation, or disposal.

5. Landfill Waste Management Hierarchy

Shoolini University follows a 4R-based hierarchy to manage landfill waste effectively:

1. Reduce:

Minimize waste generation through efficient consumption and responsible procurement practices.

2. Reuse:

Encourage reuse of materials such as glass containers, metal objects, stationery, and furniture wherever possible.

3. Recycle:

Segregate recyclable waste (paper, plastic, glass, and metal) at the source and send it to authorized recyclers.

4. Responsible Disposal (Landfill):

Ensure only inert, non-recyclable, or non-compostable waste is sent to designated landfill sites through authorized agencies.

6. Landfill Waste Reduction Strategies

To minimize landfill dependency, the University undertakes the following measures:

- On-campus composting units for biodegradable waste.
- Promotion of plastic-free campus initiatives.
- Use of bamboo and wooden collection baskets (kilta) for waste segregation.
- Regular waste audits to identify high landfill-generating areas.
- Collaboration with municipal and private waste management agencies for safe disposal.
- Encouragement of student-led projects on waste upcycling and green innovations.

7. Partnerships

Shoolini University ensures full compliance with:

- Solid Waste Management Rules, 2016
- Plastic Waste Management Rules, 2022
- E-Waste Management Rules, 2022
- Hazardous Waste Management Rules, 2016

The University collaborates with the Municipal Corporation Solan, and authorized waste management agencies for environmentally safe transportation and landfill disposal of residual waste.

Through the implementation of this policy, Shoolini University reaffirms its commitment to environmental excellence, campus hygiene, and zero landfill vision.

REGISTRAR

Policy for Minimisation of Plastic Use

2024



Shoolini University of Biotechnology and Management Sciences,

Solan, Himachal Pradesh, India-173229

1. Preamble

Shoolini University, as a leading green campus, recognizes the urgent global need to reduce plastic pollution and promote sustainable alternatives. In alignment with the United Nations Sustainable Development Goal 12 – Responsible Consumption and Production, the University has adopted this Policy for Minimisation of Plastic Use to systematically reduce single-use plastic and encourage eco-friendly materials across all university operations. The policy reflects the University's long-standing commitment to environmental conservation, circular economy practices, and waste reduction. It serves as a guiding framework to eliminate avoidable plastic use and foster a culture of sustainability within the campus community.

2. Policy Statement

Shoolini University is committed to the gradual elimination of single-use plastic and the promotion of sustainable alternatives such as biodegradable, compostable, or reusable materials.

The University aims to:

- Discourage the procurement and use of single-use plastic materials within the campus.
- Replace plastic with sustainable alternatives (e.g., bamboo, jute, paper, metal, or glass).
- Promote a "Plastic-Free Campus" through awareness, capacity building, and policy enforcement.
- Support the state and national plastic management frameworks, including the Plastic Waste Management (Amendment) Rules, 2022.

3. Objectives

- To minimize the generation and usage of plastic materials in all university activities.
- To promote the use of environmentally friendly alternatives in academic, administrative, and residential areas.
- To sensitize students, faculty, and staff on the harmful effects of plastic waste and encourage behavioral change.
- To collaborate with vendors and suppliers to ensure compliance with the plastic minimisation policy.
- To integrate sustainability principles into the university's procurement, waste management, and event organization processes.

4. Scope

This policy applies to:

- All academic, research, administrative, and residential premises within the university.
- Cafeterias, food stalls, and hostels operating on the campus.
- Students, faculty, staff, contractors, and visitors.
- All vendors, suppliers, and event organizers associated with the university.

5. Implementation Guidelines

The University shall adopt the following strategies to minimize plastic use:

5.1 Elimination of Single-Use Plastic

- Ban single-use plastic items such as straws, cutlery, plastic cups, stirrers, bottles (below 1L capacity), and disposable bags.
- Prohibit the use of thin plastic carry bags (<75 microns) across campus.
- Replace single-use items with reusable alternatives (e.g., metal bottles, glass containers, or bamboo straws).

5.2 Green Procurement

- Mandate all purchase departments to prioritize sustainable materials over plastic-based items.
- Vendors and suppliers shall comply with the university's "no single-use plastic" procurement clause.
- Encourage local sourcing of goods with minimal plastic packaging.

5.3 Waste Segregation and Recycling

- Install color-coded bins for segregation of recyclable plastic waste at source.
- Partner with authorized recyclers for the collection and recycling of plastic materials.
- Conduct regular waste audits to monitor plastic consumption patterns.

5.4 Awareness and Capacity Building

- Organize awareness drives, workshops, and campaigns such as "Plastic-Free Shoolini," "Refuse Single Use," and "Bring Your Own Bottle."

- Encourage student clubs and green committees to promote behavioral change and sustainability habits.

5.5 Research and Innovation

- Promote research projects focusing on biodegradable alternatives, plastic waste management, and circular economy models.
- Collaborate with external agencies, NGOs, and startups developing innovative waste reduction technologies.

6. Infrastructure and Support Initiatives

- Establish bottle refilling stations to discourage plastic bottle use.
- Provide cloth and jute bags for university stores and events.
- Encourage the use of handcrafted bamboo "kilta" baskets for waste collection, preserving local culture while promoting sustainability.
- Ensure canteens and hostels adopt reusable utensils and sustainable food packaging

Shoolini University commits to creating a sustainable, plastic-free campus through innovation, education, and community participation. By eliminating single-use plastics, and fostering awareness, the University aims to lead as a model institution for environmental responsibility in higher education.

REGISTRAR

Policy for Minimisation of Disposable Items

2024



Shoolini University of Biotechnology and Management Sciences,

Solan, Himachal Pradesh, India-173229

1. Preamble

Shoolini University is dedicated to fostering an environmentally responsible and sustainable campus by promoting mindful consumption and waste reduction practices. The Policy for Minimisation of Disposable Items has been formulated in alignment with the United Nations Sustainable Development Goal 12 (Responsible Consumption and Production), reflecting the University's commitment to reducing its environmental footprint. The policy aims to discourage the use of single-use and disposable items, promote reusable and sustainable alternatives, and cultivate a culture of environmental consciousness among students, staff, and stakeholders.

2. Policy Statement

Shoolini University is committed to eliminating or significantly reducing disposable items across all its departments, offices, and facilities. The University shall ensure that all operational activities prioritize reusability, recyclability, and sustainability over convenience-driven disposables. This includes the phasing out of plastic cutlery, disposable cups, plates, and packaging materials and replacing them with eco-friendly alternatives such as metal, bamboo, glass, paper, or biodegradable materials.

3. Objectives

The key objectives of this policy are to:

- Reduce campus dependency on single-use disposable items.
- Promote reusable alternatives through infrastructure and awareness.
- Encourage responsible purchasing and vendor compliance with eco-friendly standards.
- Ensure waste minimisation through sustainable event and cafeteria practices.
- Integrate environmental sustainability into daily operations and procurement systems.

4. Scope of the Policy

This policy applies to:

- All academic, research, and administrative departments.
- Hostels, cafeterias, and canteens operating within the campus.
- University events, meetings, and conferences.
- All students, faculty, staff, vendors, and contractors associated with the University.

5. Implementation Strategies

5.1 Elimination of Single-Use Disposable Items

- Prohibit the use of single-use plastics, paper cups, plates, straws, and cutlery across campus.
- Introduce reusable alternatives such as stainless-steel tumblers, ceramic plates, or glass bottles in cafeterias and offices.
- Encourage "Bring Your Own Mug/Bottle" practices among students and staff.

5.2 Green Procurement

- Ensure that procurement departments prioritize biodegradable or reusable items in purchase orders.
- Vendors and suppliers must comply with the University's Green Procurement Guidelines and avoid plastic or non-biodegradable packaging.
- Preference shall be given to local suppliers promoting sustainable materials.

5.3 Sustainable Cafeteria and Event Practices

- All food vendors and canteen operators shall use washable and reusable utensils instead of disposables.
- Events and seminars organized on campus must be zero-waste, prohibiting disposable plates, bottles, and decorations.
- Drinking water stations shall be installed at event venues to eliminate packaged water bottles.

5.4 Awareness and Capacity Building

- Conduct periodic awareness campaigns, workshops, and sustainability drives to promote reusable habits.
- Launch initiatives such as "No to Disposables Week," "Green Cafeteria Drive," and "Zero Waste Events."
- Display posters and digital messages around campus encouraging reduction of disposable waste.

5.5 Waste Segregation and Recycling

- Segregate and collect any unavoidable disposable waste in color-coded bins.

- Partner with authorized recyclers or waste management agencies for responsible disposal.
- Periodically track the quantity of disposable waste generated to monitor progress.

6. Awareness

- Organize training programs and green campaigns to promote reusable alternatives.
- Collaborate with local NGOs and government initiatives working on waste minimisation.
- Celebrate Environment Day, World Cleanup Day, and Swachh Campus Drive to encourage community participation in waste-free initiatives.

Shoolini University remains steadfast in its mission to become a zero-waste and sustainable campus. Through this policy, the University seeks to lead by example—promoting eco-friendly consumption, discouraging disposables, and nurturing a community that values environmental responsibility and sustainable living.



REGISTRAR

Shoolini University
RECOGNISED BY UGC

Ref No. SUBMS-/14.../3662
Dated: ..18/08/2014.....

As per the decision of Development Committee of University, it has been decided that henceforth university is declared as Green Campus. The University will develop facility for use of solar energy as well as take all initiatives to be environmental friendly. It is further notified that henceforth plastic items be banned for use especially water bottles. All staff members/students are requested not to use items made from plastic within the University premises. Strict action will be initiated in case of non-compliance of orders.

REGISTRAR
O/C

Copy for information and necessary action forwarded to:-

1. All Deans/Directors/HoS's/Controlling Officers for vide publicity among students/ Staff members under their control
2. All Faculty/Staff/Students Shoolini University
3. Secretary to Vice Chancellor for the kind information of the latter.

REGISTRAR
O/C

IT E-WASTE POLICY

Shoolini University's achievements across all three dimensions of the "Triple Bottom Line" - economic, social, and environmental is well known and recognized globally. Being a pioneer in environmentally sustainable operations (e.g., Carbon and Water positive, solid waste recycling positive), we need to meet demanding standards of responsible waste management in all aspects of our operations.

With pervasive use of electrical and electronic equipment's in our daily operations, disposal of obsolete equipment's is increasingly posing a threat to our environment. There is therefore a need to handle such disposals - referred to as E-Waste - in a responsible manner in line with emerging global best practices and standards. IT E-Waste is a subset of E-Waste and covers the following IT equipment's:

Sl. No.	Category	Items
1	Computers	Server / Desktop computer (CPU, Monitor, Keyboard and Mouse), Laptop, Notebook, Dumb terminal, etc. or similar items
2	Printer & Accessories	Printer, Scanner, Printer Cartridge, Toner, etc. or similar items
3	Network equipment's	Routers, Switches, Patch panel, Modem, Converter, VSAT equipment's, etc. or similar items
4	IT Accessories	TV Tuner box, Floppy, CD and DVD, Pen Drive, External Hard disk, External CD / DVD writer, DAT Drive, Speaker, Laptop Battery, Handheld device, VC equipment's, Data Cartridge, etc. or similar items
5	Associated Electrical items	Power cable, Data cable, UPS, etc. or similar items

IT E-WASTE POLICY

The lifecycle of all IT assets spanning from acquisition to disposal shall be managed in a manner which conforms to sound environmental norms as detailed in the IT E-Waste guidelines. This includes:

1. Preferential dealing with IT vendors having sound E-Waste management processes
2. Extending the useful life of IT assets to postpone / minimize generation of E-Waste
3. Responsible disposal processes conforming to regulatory requirements and best practices

IT E-WASTE MANAGEMENT GUIDELINES

REGULATORY ENVIRONMENT

Different government bodies have published regulatory framework for handling E-waste. Similarly, different trade and industry bodies are also evolving the best practices to deal with IT E-Waste. CIO Office will scan the evolving code of practice and keep updating this policy document in line with the best practices for disposal of IT E-Waste. This will be done once a year, or more frequently if deemed necessary.

IT E-WASTE MINIMIZATION PROCESS

It shall be the endeavor of every user to maximize utilization of all IT assets to their full productive life. Apart from internal re-use, option to extend use outside ITC through donation to bonafide philanthropic institutions will also extend the useful life of IT assets.

Only such IT assets which are non-operational and cannot be reused for any other alternate purpose should be considered as IT E-waste for disposal.

Chief Information Officer

Registrar

Awareness campaigns

The Centre of Excellence in Energy Science and Technology conducts webinars related to Energy and Environment and various SDGs. The university also works with NGO 'Healing Himalayas' https://healinghimalayas.org/ to carry out various activities for environment action and sustainability.

All these initiatives are in line with National Missions of the Indian Government like Jawaharlal Nehru National Solar Mission, Swachh Bharat Abhiyan etc.

Evidence

This is evident from installation of solar photovoltaic power plant in line of govt's Jawaharlal Nehru National Solar Mission and various other initiatives like use of biogas, ban of plastics, wastewater recycling, rainwater harvesting, etc. ***(Refer to Energy and Environment Policy and SDG 7 Status Report for details).***

Renewable Energy Awareness Camp in Tikker Panchayat

Organized by: Shoolini University, Solan, Himachal Pradesh

Date: 21th February 2025

Participating Institution: Tikker Panchayat, Solan

Shoolini University organised a Renewable Energy Awareness Camp in Tikker Panchayat, Solan District, Himachal Pradesh, to promote awareness of renewable energy technologies and energy-efficient practices among rural communities. University students engaged with local residents to explain how clean energy solutions can support daily household activities while reducing dependence on conventional fuels.

During the camp, Shoolini University students interacted with villagers, members of Self-Help Groups (SHGs), school students, and local leaders. The programme included demonstrations and discussions on renewable energy technologies and energy-saving practices.

Key activities included:

- **Solar cookers:** Demonstrations highlighting the use of solar energy for cooking and its potential to reduce dependence on conventional fuels.
- **Solar lamps:** Awareness of solar-powered lighting as an alternative to conventional lighting sources, particularly in areas where access to reliable electricity may be limited.
- **Solar water-heating systems:** Introduction to solar thermal technology for heating water and reducing electricity or fuel consumption.

- **Energy-efficient appliances:** Information on technologies that can help households use energy more efficiently.
- **LED lighting:** Promotion of LED lights as an energy-efficient alternative to conventional lighting.
- **Household energy conservation:** Guidance on switching off unused electrical appliances and adopting responsible energy-use practices.

This helped communicate the potential benefits of clean energy, including lower household energy expenditure, reduced indoor air pollution when conventional polluting fuels are displaced, and decreased environmental impacts. It also encouraged community members to consider energy-efficient practices in their daily lives.



Volunteers discussed Renewable Energy with panchayat staff



Volunteers addressed the children for Renewable Energy

Promoting Education, Water Conservation, Clean Energy and Climate Action

Organized by: Shoolini University, Solan, Himachal Pradesh

Date: 24 July 2025

Participating Institution: Army Public School, Dagshai

On 24 July 2025, Shoolini University welcomed 80 Class XII students and four teachers from Army Public School, Dagshai, for a campus visit. The programme provided an opportunity for the visiting students to become familiar with the university environment and explore potential higher education opportunities.

The visit served as a platform for school–university engagement, helping students understand the importance of continued education and informed academic decision-making. It also provides an opportunity to introduce sustainability as an important consideration in education and institutional development, particularly in relation to water conservation, clean energy, and climate responsibility.

The initiative aligns with the following United Nations Sustainable Development Goals:

- **SDG 4 – Quality Education:** Promoting access to educational opportunities and helping students explore pathways to higher education.
- **SDG 6 – Clean Water and Sanitation:** Encouraging awareness of responsible water use, water conservation, and sustainable water management.
- **SDG 7 – Affordable and Clean Energy:** Promoting awareness of renewable energy, energy efficiency, and responsible energy consumption.
- **SDG 13 – Climate Action:** Encouraging environmental responsibility and awareness of climate change and sustainable practices.

The campus visit supported educational outreach by introducing school students to the university environment and encouraging them to explore higher education opportunities, thereby contributing to **SDG 4 (Quality Education)**. The visit also offered a potential platform to raise awareness of **SDG 6 (Clean Water and Sanitation)** through discussions on water conservation, responsible water consumption, and sustainable water management practices; **SDG 7 (Affordable and Clean Energy)** through exposure to renewable energy technologies and energy-efficient practices; and **SDG 13 (Climate Action)** by highlighting the importance of environmental awareness, climate responsibility, and sustainable development. Any specific

demonstrations, discussions, or activities related to water conservation, clean energy, or climate action should be documented separately and supported by photographs or other relevant evidence, where applicable.

Total Participants: 84



Students and Teachers from Army Public School, Dagshai

International Earth Day Celebration

Date: 24th April 2025

SDG 4: Quality Education, SDG 7: Affordable and Clean Energy, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production & SDG 13: Climate Action.

Venue: Covered Parking, Shoolini University

On April 24th, 2025, Shoolini University came alive with the spirit of Earth Day through a vibrant, purpose-driven celebration that united sustainability, innovation, and artistic expression. At the heart of the event was the Inter-School Eco-Challenge , where nine schools competed passionately across four dynamic categories: **Clean Energy Live Demo**, **Waste-to-Wonder DIY Challenge**, Green Bazaar Exhibition, and Poster Making. Each school brought forward incredible creativity and collaboration—demonstrating working models of clean energy, repurposing waste into functional and beautiful products, setting up stalls that embodied the 3Rs (Reduce, Reuse, Recycle), and crafting thought-provoking posters under the

theme “Our Power, Our Planet.” This spirited challenge ignited both friendly competition and a deeper commitment to environmental stewardship.



International Earth Day Event Poster 2025



Prof. P.K. Khosla, Chancellor at the International Earth Day Event interacting with students

Conferences, Webinars and other activities related to the promotion of SDG 7 and 13:

International Conference on Applied Artificial Intelligence and Innovation (AAIIC 2025)

Organizing Institution: Yogananda School of AI, Computers, and Data Science (YSAICDS), Shoolini University, Solan, Himachal Pradesh, India
Date: 11–12 July 2025
Duration: Two Days International Conference
Participants: Academicians, researchers, faculty members, students, and industry professionals
Conference Theme: Applied Artificial Intelligence and Innovation

The Yogananda School of AI, Computers, and Data Science (YSAICDS) at Shoolini University organized the **International Conference on Applied Artificial Intelligence and Innovation (AAIIC 2025)**, a two-day academic and research event bringing together experts, researchers, academicians, and industry professionals to discuss emerging developments and practical applications of artificial intelligence (AI). The conference provided a platform for knowledge-sharing, interdisciplinary research, international academic interaction, and industry engagement. Various academic and industry fields participated in the event, contributing to discussions on the growing role of AI in education, **energy**, ethics, intelligent systems, automation, manufacturing, and enterprise solutions.

The conference featured international speakers who shared research insights and expertise in emerging AI technologies and their practical applications. Speakers included:

- **Sanjay Misra** – Universidad de Alcalá, as listed in the conference announcement.
- **Shailendra Rathore** – Abertay University, United Kingdom.
- **Yerzhan Kerimbekov** – Zhanibekov University, Kazakhstan.
- **Laura Baitokayeva** – Nazarbayev Intellectual School, Kazakhstan.
- **Tomáš Čech** – Palacký University, Czech Republic.

The conference also involved Prof. Manju Khari of Jawaharlal Nehru University and Prof. K. K. Patel of Charotar University of Science and Technology as Conference Theme Chairs. They emphasized the importance of collective learning, teamwork, and research collaboration in advancing the field of artificial intelligence.

The participation of speakers from different institutions and countries strengthened the conference's international academic character and provided opportunities for exchanging research knowledge and perspectives.

Industry Participation and Practical Applications

An important component of AAIIC 2025 was the involvement of industry professionals. Senior professionals from Tata Consultancy Services (TCS), Apoorv Aggarwal and Rajit Sikka, shared insights into the practical application of AI across automation, manufacturing, and enterprise solutions.

Their sessions highlighted how businesses are integrating AI technologies into operational processes, developing intelligent systems, and improving the application of digital technologies in industrial environments.

This academic–industry interaction helped connect theoretical research with practical requirements and demonstrated the value of cooperation between universities and industry in technological innovation.

Major Themes and Areas of Discussion

The conference explored a range of themes related to the development and application of AI, including:

Artificial Intelligence in Energy: Examination of AI applications in energy-related systems and technological innovation.

AI in Education: Discussion of emerging AI applications that can support educational practices, research, and learning processes.

Ethics and Responsible AI: Consideration of ethical questions and the responsible development and application of artificial intelligence.

Intelligent Systems: Exploration of emerging research and applications in intelligent computing and AI-driven systems.

AI in Industry: Discussion of applications in automation, manufacturing, enterprise systems, and industrial operations.

These themes encouraged interdisciplinary dialogue and highlighted the potential of artificial intelligence to address challenges across academic, industrial, and societal contexts.

Relevance to Sustainable Development Goals

SDG 7: Affordable and Clean Energy

The conference included discussions on AI in energy, providing a thematic connection with **SDG 7 – Affordable and Clean Energy**. AI technologies have potential applications in energy-system optimization, energy-demand analysis, operational efficiency, and the integration of emerging energy technologies.

The conference's energy-related discussions therefore offered a platform for exploring the role of AI in energy innovation. However, any claim that specific renewable-energy or energy-efficiency outcomes were achieved would require additional evidence from the conference programme, presentation materials, or proceedings.

SDG 13: Climate Action

Artificial intelligence can contribute to climate-related research through environmental data analysis, climate modelling, monitoring systems, and the development of technology-based approaches to environmental challenges.

AAIIC 2025 promoted discussion and collaboration around applied AI and innovation, creating a potential connection with technology-driven approaches to sustainability. Nevertheless, the available conference description does not establish a dedicated climate-action session or a measured climate impact. A direct SDG 13 claim should therefore be supported by relevant presentation titles, abstracts, or session documentation.

Outcomes and Significance

The conference brought together 72 participants from academic and industry fields and provided opportunities to:

1. Exchange research knowledge and perspectives on emerging artificial intelligence technologies.
2. Encourage international academic interaction and interdisciplinary collaboration.
3. Connect academic research with industry applications in automation, manufacturing, and enterprise solutions.

4. Explore AI applications across energy, education, ethics, and intelligent systems.
5. Highlight opportunities for collaboration between researchers, students, and industry professionals.

Suggested Supporting Evidence



AAIIC 2025, academia and industry experts



Dr. Ashish Khosla Session on AI and Innovation

Committed to reducing plastic consumption on campus

Shoolini University is **committed to reducing plastic consumption on campus by promoting reusable and environmentally friendly alternatives** to conventional plastic products. The University has adopted several initiatives to minimise plastic use in day-to-day activities, as illustrated by the available photographic evidence:

Practical measures to minimise plastic use in day-to-day activities:

1. Reusable Water Bottles

Shoolini University promotes the use of reusable, wood-finished stainless-steel water bottles as an alternative to single-use plastic bottles. These bottles support waste reduction by encouraging repeated use and reducing dependence on disposable beverage containers in daily campus activities.



Reusable wood-finished stainless-steel water bottles used at Shoolini University

2. Reusable Carry Bags

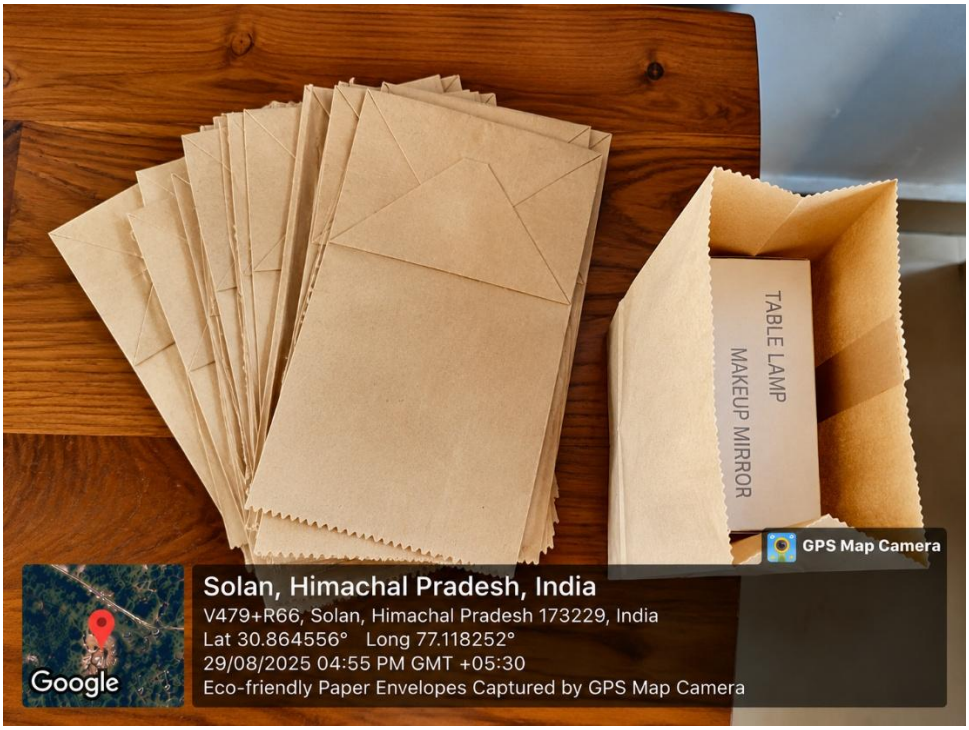
Shoolini University promotes jute and cloth-based carry bags as sustainable alternatives to conventional plastic bags. These reusable bags help reduce plastic consumption and encourage environmentally responsible practices among the university community.



Reusable jute and cloth-based carry bags

3. Paper-Based Packaging

University uses paper bags for packaging and carrying small items as an alternative to plastic packaging materials. This initiative supports the reduction of unnecessary plastic use and encourages the adoption of alternative packaging materials in routine activities.



Paper bags for packaging and carrying small items

4. Eco-Friendly Pens

The University uses cardboard-bodied pens as alternatives to conventional plastic pens. This initiative encourages the use of alternative materials in stationery and supports efforts to reduce reliance on plastic-based products in academic and administrative activities.



Eco-friendly cardboard-based pen

5. Bamboo Waste Baskets:

Shoolini University uses bamboo kiltas as alternatives to conventional plastic dustbins. By incorporating these natural-material alternatives into campus waste management, the University promotes sustainable material choices and supports its broader efforts to reduce plastic use.



Bamboo Kiltas inside the campus

Energy-efficient appliances:

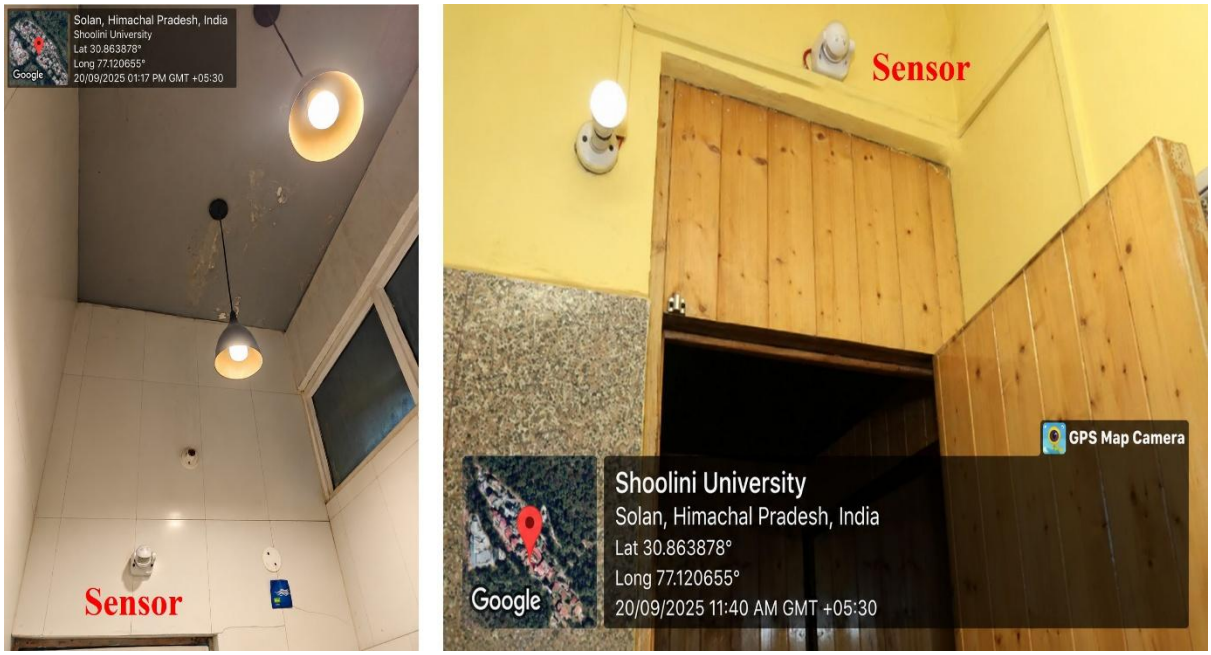
Shoolini University uses five-star-rated, energy-efficient air conditioners in Conference Room A-Block. Approximately 95% of campus lighting uses 20-W LED tube lights, reducing energy consumption by 55–60%. Rechargeable 18-W LED lights are also used to promote energy-efficient lighting.



Five-star energy-efficient AC in Conference Room A-Block

Automatic control systems

Shoolini University has installed sensor-based automatic lighting control systems in washrooms to switch lights on and off as required. These sensors help prevent unnecessary electricity consumption by ensuring that lights operate only when needed. This initiative promotes energy conservation, improves operational efficiency, and supports the University's commitment to sustainable campus management.



Auto cutoff sensor and device installation

Renewable energy systems:

High-efficiency sensor-based LED lighting has been systematically installed throughout all university buildings and along campus pathways. This widespread upgrade drastically cuts down overall electricity consumption while providing superior, reliable lighting efficiency across the entire institution.



Solar-powered lighting installed along campus pathways

Efficient heating technologies

Shoolini University has installed solar water heating systems using flat-plate and evacuated-tube collectors across all university hostels to provide daily hot water for residents. These systems harness solar energy, reducing dependence on conventional electricity or other heating fuels.



Solar Thermal Energy Systems and energy efficient PTC heaters at Shoolini University

5-kW photovoltaic (PV)–wind hybrid system:

Shoolini University has installed a 5-kW Wind–Solar PV Hybrid Off-Grid Power Plant to support renewable energy generation and promote sustainable campus operations. The hybrid system integrates wind and solar photovoltaic technologies to harness renewable energy sources and support the University's commitment to clean energy and climate action.



5 kW Wind–turbine Installed in Shoolini University

Conclusion

Shoolini University demonstrates its commitment to clean energy through institutional policies, renewable energy infrastructure, and energy conservation initiatives. Its Energy Policy and Environmental Policy promote renewable energy generation, energy efficiency, and sustainable campus development. Solar photovoltaic systems, solar cooking technologies, solar water heating, and energy-efficient lighting support the practical implementation of these commitments. Community outreach and awareness activities further encourage the adoption of renewable energy and responsible energy-use practices. Collectively, these policies and initiatives strengthen the University's contribution to SDG 7: Affordable and Clean Energy and promote a sustainable future.