KALASALINGAM
ACADEMY OF RESEARCH AND EDUCATION
(DEEMED TO BE UNIVERSITY)
Under sec. 3 of UGC Act 1956. Accredited by NAAC with "A++" Grade

**THE - Impact Rankings 2026**

**SDG 13: Climate Action**

## Annual Report 2023-2024

SDG 13: Climate Action emphasizes the urgent need to combat climate change and build resilience to its impacts. It calls for proactive environmental stewardship, reduction of greenhouse gas emissions, sustainable resource use, disaster preparedness, and greater awareness of climate-related risks. Academic institutions play a crucial role in shaping environmentally responsible citizens and developing research-driven solutions for climate resilience.

Kalasalingam Academy of Research and Education (KARE) is deeply committed to advancing SDG 13 through sustainable campus operations, environmentally conscious academic initiatives, and community-focused climate action programs. The university integrates climate awareness into its curriculum, research activities, and outreach initiatives, ensuring that students and staff develop an informed understanding of climate science and sustainability practices.

KARE has adopted multiple measures to reduce its environmental footprint. These include energy-efficient buildings, solar power systems, rainwater harvesting, green landscaping, waste reduction practices, and responsible consumption of natural resources. The institution actively monitors energy usage, promotes carbon-conscious behaviours, and encourages sustainable transportation options within campus.

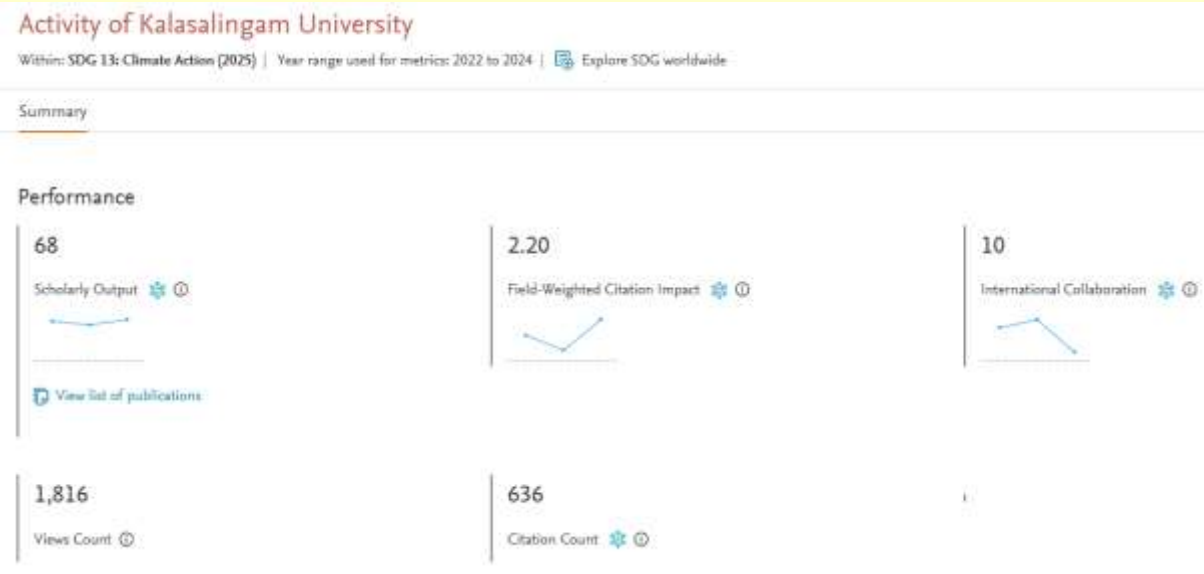
Research at KARE contributes to climate solutions in areas such as renewable energy, green materials, environmental engineering, carbon sequestration, and sustainable agriculture technologies. Faculty and students participate in research projects, innovation challenges, and collaborations that develop climate-resilient technologies and promote long-term environmental sustainability.

The university conducts regular awareness campaigns, workshops, tree planting drives, and environmental protection activities, involving students, staff, and local communities in climate action. Disaster preparedness and mitigation programs, including training on emergency response, first aid, and environmental risk assessments, further strengthen community resilience.

KARE's outreach initiatives extend support to nearby villages through programs on water conservation, waste management, sustainable farming, and climate literacy. These efforts empower communities to adopt environmentally responsible practices and adapt to changing climatic conditions.

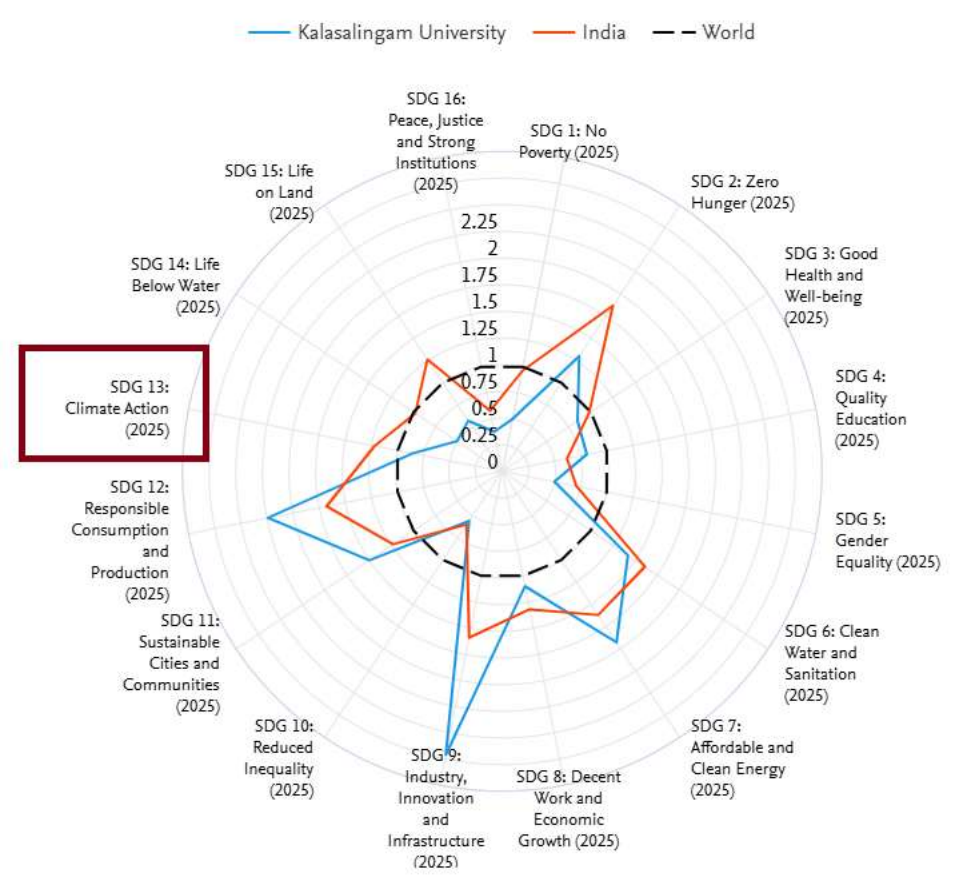
Through responsible operations, research innovations, education, and community engagement, KARE actively advances SDG 13: Climate Action, fostering a culture of environmental responsibility and contributing to a sustainable and climate-resilient future.

**SDG 13: Research Metrics (SciVal)**




**Relative Activity**

The Relative Activity Index is defined as the share of an Institution's Scholarly Output in a SDG relative to the worldwide share of Scholarly Output in that same SDG.




### 13.2.1 – Low Carbon Energy Tracking

Kalasalingam Academy of Research and Education (KARE) has taken major steps to reduce carbon emissions by using renewable energy sources. The university installed **1124.22 kWp rooftop solar panels** across nine blocks, generating clean energy that meets **about 45% of the campus power needs**. This helps in reducing dependency on conventional electricity and cutting carbon emissions. KARE also set up **152 solar streetlights**, solar water heaters in hostels, and solar pumps in agricultural areas, saving nearly **9.56 kWh per annum**. The institution tracks its renewable energy generation using a monitoring system that records solar power output and efficiency.

The campus produces over **3.9 million kWh annually**, reducing **3911.79 tonnes of $CO_2$** each year. In addition, KARE's **biogas plant** processes around **1500 kg of kitchen waste daily**, producing approximately **5.31 kWh of power per day**. This reduces LPG usage and converts waste into useful energy. Together, solar and biogas systems make KARE's campus environmentally responsible and energy efficient. The university's continuous investment in renewable systems and data-based tracking demonstrates its commitment to building a sustainable, low-carbon future while promoting a culture of energy conservation and climate awareness among students and staff.

**13.2.2 – Low Carbon Energy Use**

KARE's energy management focuses on increasing the share of renewable and low-carbon energy in total campus consumption. In **2024**, the university used **31,126.97 Gigajoules (GJ)** of energy, out of which **14,083.79 GJ** came from solar and other low-carbon sources. This represents **45.22% of total energy** being generated sustainably. The institution's solar energy systems significantly reduce carbon emissions and operational costs. By integrating renewable sources with modern monitoring systems, KARE ensures efficient energy use and minimal wastage. The solar power is primarily used in academic buildings, hostels, and administrative blocks, covering most daily operations without relying heavily on the grid. **Energy-efficient systems such as LED lights, BLDC fans, and automated controls** complement solar energy generation, ensuring the university maximizes efficiency across all departments. This balance of renewable generation and responsible consumption showcases KARE's leadership in

campus sustainability and reflects its strong commitment toward achieving carbon neutrality in alignment with national energy and climate goals.

**13.3.1 – Local Education Programmes on Climate**

KARE actively promotes environmental education among students and local communities. Through its **student-led "Green Army"**, the university conducts activities such as **tree plantation drives (4686 saplings in 2023–24)** and **Vehicle-Free & Emission-Free Days**. These programs spread awareness about pollution control and climate responsibility. In academics, courses like **"Introductory Agro-Meteorology and Climate Change"** integrate sustainability into formal learning. KARE's **Sustainable Environment Policy (2022)** strengthens its commitment to biodiversity and eco-friendly practices. The university extends these efforts through workshops, NSS activities, and collaborations with staff and local residents. Climate-related workshops and seminars, including on **renewable energy systems, millets for sustainability, and waste management**, reach hundreds of participants yearly. Moving forward, KARE plans to expand these initiatives into local villages and schools, working with NGOs and panchayats to promote sustainable habits such as rainwater harvesting and plastic reduction. Through a mix of education, outreach, and community engagement, KARE builds strong awareness of climate change and encourages collective environmental responsibility.

**13.3.2 – Shared Climate Action Plan**

KARE's **Climate Action Plan** provides a clear roadmap for sustainability and climate resilience. The plan focuses on renewable energy, waste management, biodiversity protection, and climate education. It aligns with **India's national climate targets** and the **UN Sustainable Development Goal 13 (Climate Action)**. The **Policy on Climate Action**, shared on KARE's website, outlines strategies for achieving a carbon-neutral campus through clean energy, reduced emissions, and green practices. It also emphasizes stakeholder participation—students, faculty, and community members are encouraged to contribute through events like **Green Week**, **Vehicle-Free Day**, and large-scale tree plantations. Progress is documented in the **Sustainability Report 2023–24** and **Green Audit Report**, ensuring transparency and accountability. Public access to the policy allows collaboration and feedback from the wider community.

Overall, KARE's shared Climate Action Plan demonstrates institutional dedication to climate responsibility and serves as a public model for universities working toward sustainability and community involvement.

### 13.3.3 – Co-operative Planning for Climate Change Disasters

KARE is committed to preparing for climate-related disasters through policies, education, and sustainable infrastructure. The university's **Policy on Climate Action** and **Sustainability Report** emphasize proactive steps for disaster readiness, such as reducing emissions, promoting renewable energy, and encouraging responsible resource use. Initiatives like energy-efficient appliances, the "Green Army," and tree-planting campaigns cultivate awareness and resilience among students and staff. These activities help the university mitigate risks from climate hazards like floods, heatwaves, or droughts. KARE's energy and climate programs also integrate with the **UN SDGs (7, 11, 12, and 13)** through renewable energy production, green campus design, and responsible consumption. The installation of solar panels, biogas plants, and eco-friendly infrastructure supports these objectives.

In academics, programs on **renewable energy technologies, sustainable design, and environmental science** prepare students to contribute to future climate solutions. Through policy, research, and education, KARE promotes a culture of sustainability and disaster resilience within the university and surrounding community.

### 13.3.4 – Inform and Support Government

KARE actively supports government initiatives in climate change and sustainable development. Faculty members provide **expert advice and research inputs** to departments like the **Department of Science and Technology (DST)**, **Tamil Nadu State Council for Science and Technology (TNSCST)**, and the **State Disaster Management Authority**. The university also offers **technical consultancy** in projects involving **flood management, waste treatment, and water conservation**. Workshops and training programs for panchayat officials and local administrators promote climate adaptation strategies. During natural disasters, KARE provides **volunteers, logistics, and technical assistance** to government agencies, contributing to relief operations. Through these collaborations, KARE ensures that academic research is converted into actionable policy recommendations, supporting evidence-based decision-making. These combined efforts reflect KARE's strong partnership with government bodies toward achieving Sustainable Development Goal 13 and building climate-resilient communities.

### 13.3.5 – Environmental Education: Collaboration with NGOs

KARE works closely with NGOs to advance environmental education and community awareness. Under programs like **Unnat Bharat Abhiyan**, the university has adopted **five nearby villages** for climate-related outreach. In collaboration with NGOs, students and faculty organize **tree planting, waste management drives, and sustainable farming workshops**. The **Atal Community Innovation Centre (ACIC–KIF)**, supported by **NITI Aayog**, partners

with community groups to promote eco-friendly innovations and rural entrepreneurship. KARE's **National Service Scheme (NSS)** and **Youth Red Cross** units conduct awareness campaigns with organizations like the **Tamil Nadu Pollution Control Board** on pollution control, road safety, and public health. These partnerships integrate classroom learning with real-world environmental action. Through collaboration, KARE strengthens climate education, supports rural sustainability, and inspires students to become socially responsible citizens. This collective effort advances SDG 13 and encourages long-term environmental stewardship.

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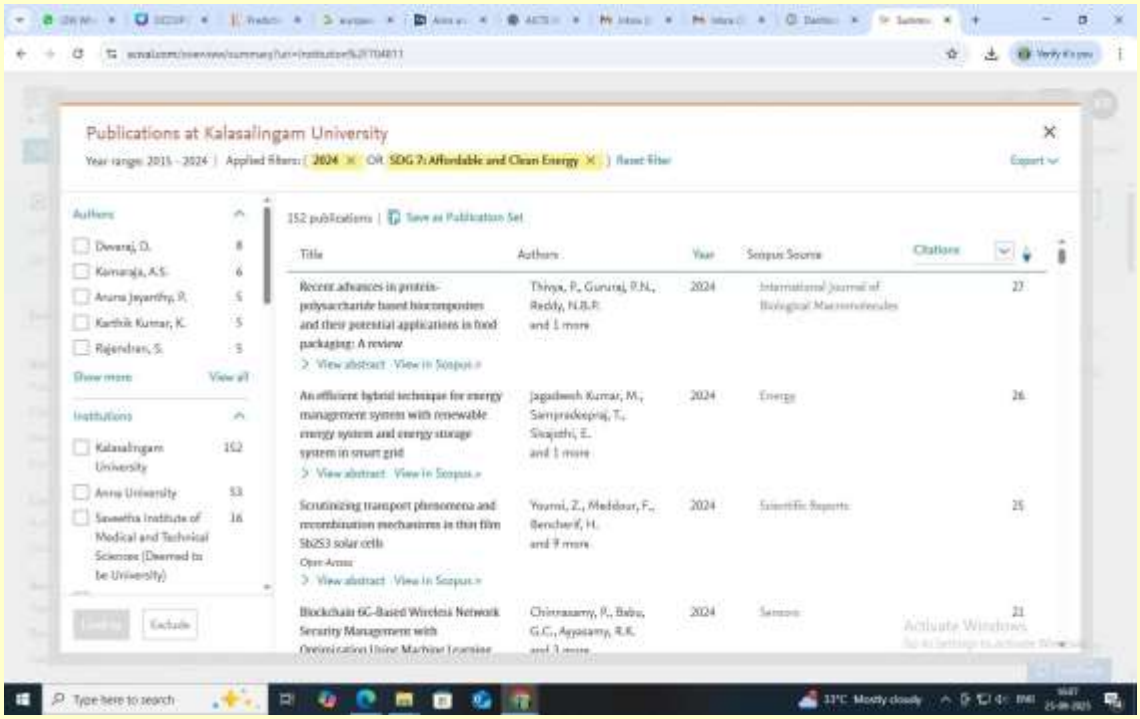
| National Service Scheme (NSS) wing of KARE organized a special camp for seven days during 28th November 2023 to 04th December 2023. | "Viksit Bharat." discussed the multifaceted aspects of this vision, including economic growth, social progress, and environmental sustainability- National Cadet Corps on 20.12.2023 |
| | |
| Students Rally on Cancer Awareness programme on 03.02.2024 at | KARE organized an awareness programme on 'Road Safety' in co-ordination with the Police Department on 11-01-2024 in the Administrative Block Seminar Hall. |

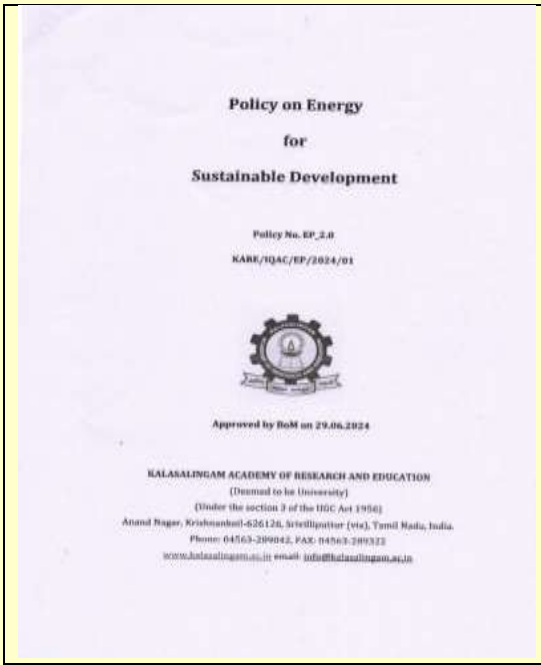
**13.4.1 – Commitment to Carbon Neutral University**

KARE aims to become a **carbon-neutral university** through strong energy, waste, and environmental policies. The campus runs a **900 kW solar system** that provides nearly **40% of total electricity needs**, along with **sewage treatment and water recycling plants**. Energy-efficient systems like LED lighting and sensor-based controls reduce power consumption. The university maintains large green spaces, tree plantations, and botanical gardens to enhance carbon sequestration. Mobility policies such as **banning vehicles inside the campus**, encouraging **walking, bicycles, and electric shuttles**, further minimize emissions. KARE integrates sustainability into academics with programs like **M.Tech in Renewable Energy Technologies**, **Sustainable Design and Manufacturing**, and **Environmental Science**. Faculty and students contribute through **research and patents** on renewable energy, waste conversion, and eco-efficient systems. Waste management follows a **3R approach (Reduce, Reuse, Recycle)**, with composting, biogas plants, and eco-brick manufacturing. The university's comprehensive strategy aligns with multiple SDGs, showcasing its leadership in higher education for sustainability and its firm dedication to a carbon-neutral future.

**In conclusion, KARE is committed to achieve zero carbon neutrality all 3 scopes by 2028.**



Sample proofs of Tree Plantation



Policy on Energy

for

Sustainable Development

Policy No. EP_2.0

KARE/IQAC/EP/2024/01

Approved by BoM on 29.06.2024

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Phone: 04563-289042, FAX: 04563-289322
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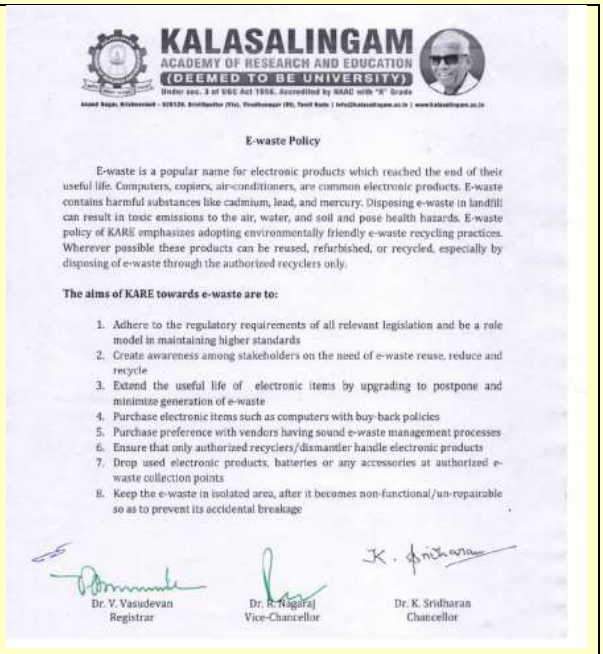
Energy Policy



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E-waste Policy

E-waste is a popular name for electronic products which reached the end of their useful life. Computers, copiers, air-conditioners, are common electronic products. E-waste contains harmful substances like cadmium, lead, and mercury. Disposing e-waste in landfill can result in toxic emissions to the air, water, and soil and pose health hazards. E-waste policy of KARE emphasizes adopting environmentally friendly e-waste recycling practices. Wherever possible these products can be reused, refurbished, or recycled, especially by disposing of e-waste through the authorized recyclers only.

**The aims of KARE towards e-waste are to:**

1. Adhere to the regulatory requirements of all relevant legislation and be a role model in maintaining higher standards
2. Create awareness among stakeholders on the need of e-waste reuse, reduce and recycle
3. Extend the useful life of electronic items by upgrading to postpone and minimize generation of e-waste
4. Purchase electronic items such as computers with buy-back policies
5. Purchase preference with vendors having sound e-waste management processes
6. Ensure that only authorized recyclers/dismantler handle electronic products
7. Drop used electronic products, batteries or any accessories at authorized e-waste collection points
8. Keep the e-waste in isolated area, after it becomes non-functional/un-repairable so as to prevent its accidental breakage

Dr. V. Vasudevan
Registrar

Dr. R. Nagaraj
Vice-Chancellor

Dr. K. Sridharan
Chancellor

E-Waste Policy

Policy on Climate Action

Policy No. CAP 2023

KARE/IQAC/CAP/2023/01

Approved by BoM on 20.12.2023

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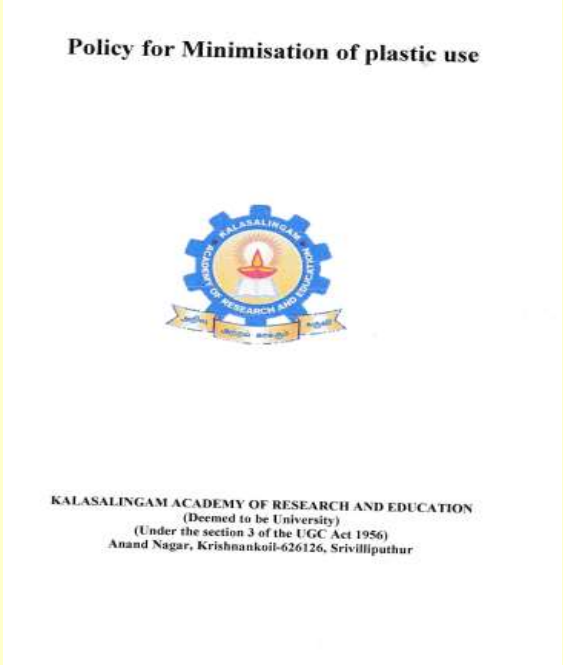
Policy on Climate Action



Policy for Minimisation of plastic use

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Anand Nagar, Krishnankoil-626126, Srivilliputhur

Policy for Minimization of Plastic Use

KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION
Anand nagar, Krishnankoil

Recycle Policy of KARE

As an education institute, KARE produces wastes such as waste paper, cardboard, computers, electrical and electronic equipments, toner cartridges, cans, textiles, plastics, glass, batteries, wood and fluorescent light tubes. When reuse is not possible, KARE is committed to recycle as much as possible.

The aims of KARE towards Recycling are to:

- Adhere to the regulatory requirements of all relevant legislation and be a role model in maintaining higher standards
- Collect the examination answer scripts and other paper waste and produce for recycling
- Increase the usage of treated waste water for gardening and other non-human contact uses
- Increase the production of manure for agriculture from bio-degradable waste generated from the institute
- Supervise continuously and review at regular intervals the recycling processes through audit
- Create and innovate strategies and methods to implement for improving recycling efficiency
- Provide need based training for creating awareness on recycling principles among students and staff
- Monitor the contractors and operators on the institute campus to comply with the requirements of this policy

Dr. V. Vasudevan, Registrar
Dr. S. Saravanasankar, Vice-Chancellor
Dr. S. SARAVANASANKAR
Vice- Chancellor
Kalasalingam Academy of Research and Education
(Deemed to be University)
Anand Nagar, Krishnankoil – 626 126
Hon'ble Dr. K. Sridharan, Chancellor

Recycle Policy

Policy on Hazardous waste disposal

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Policy On Hazardous Waste Disposal

Sustainable Environment Policy
(MARCH 2018)

KARE GREEN POLICY

KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION

Sustainable Environment

| Policy | Web URL |
|---|---|
| 1. Energy Policy | https://www.kalasalingam.ac.in/wp-content/uploads/2021/11/Energy-Policy.pdf |

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| 2. E-Waste Policy | https://www.kalasalingam.ac.in/wp-content/uploads/2021/11/e-waste_policy.pdf |
| 3. Policy on Climate Action | https://www.kalasalingam.ac.in/wp-content/uploads/2025/06/Policy-on-Climate-Action.pdf |
| 4. Policy for Minimization of Plastic Use | https://www.kalasalingam.ac.in/wp-content/uploads/2024/11/12.2.5-Policy-for-Minimization-of-Plastic-use.pdf |
| 5. Policy for Minimizaion of Disposable Items | https://www.kalasalingam.ac.in/wp-content/uploads/2024/11/12.2.6-Policy-for-minimizaion-of-disposable-items.pdf |
| 6. Policy On Hazardous Waste Disposal | https://www.kalasalingam.ac.in/wp-content/uploads/2024/11/15.4.3-POLICY-ON-HAZARDOUS-WASTE-DISPOSAL.pdf |
| 7. Recycle Policy | https://www.kalasalingam.ac.in/wp-content/uploads/2021/11/Recycle-Policy.pdf |
| 8. Sustainable Environment | https://kalasalingam.ac.in/wp-content/uploads/docs/Sustainable_Environment.pdf |

EV Transport Service inside the campus

Faculty is allowed to use their own E-Vehicles inside the campus.