THE - Impact Rankings 2026

13 CLIMATE ACTION

13.4.1. Commitment to carbon neutral university

Kalasalingam Academy of Research and Education (KARE) is strongly committed to becoming a **carbon-neutral university** by reducing greenhouse gas emissions and promoting sustainable living across the campus. Situated at the foothills of the Western Ghats, the university recognizes its responsibility to protect the environment and preserve natural resources for future generations. KARE's policies and practices are aligned with national and global goals for environmental sustainability and climate action.

One of the major steps toward carbon neutrality is the **installation of a 900 kW solar power system**, which provides around **40% of the university's total electricity needs**. This renewable energy initiative significantly reduces the campus's dependence on conventional power sources and lowers carbon emissions. The institution also operates a **Sewage Treatment Plant (STP)** with an 800 KLD capacity, ensuring wastewater is treated and reused for gardening and other non-drinking purposes. This helps conserve water and minimize environmental impact.

KARE has implemented **energy-efficient systems**, including LED lighting, sensor-based power usage, and solar streetlights, to further reduce its energy footprint. The campus also maintains extensive **green cover** through tree plantations, botanical gardens, and landscaped areas, contributing to carbon sequestration and cleaner air.

The university promotes environmental awareness through workshops, seminars, and student projects focused on **renewable energy, waste management, and climate change adaptation**. Through its **Atal Community Innovation Centre (ACIC–KIF)** and **Unnat Bharat Abhiyan** programs, KARE extends these green initiatives to nearby rural communities, encouraging sustainable development beyond the campus.

Various carbon reduction programs are followed by KARE to mitigate the environmental impact and promote sustainability to reduce Greenhouse gas emission. The institution has established a system for the management of various wastes produced in the campus, to provide a clean environment through the concept of Reduce, Recycle, Reuse which in turn creates wealth and also supports wellbeing of students, faculty and staff and to enhance the quality of life within the campus and to the society. Wherever possible, the institution is committed to recycling those materials.

Here are some common programs and initiatives followed by KARE:

1. KARE is cutting down greenhouse gas (GHG) emissions within **Scope 1** by using biogas for heating. They are also reducing the need for electricity in cooling by using common **ventilation systems**. To lower emissions from transportation, the university operates common bus facility for faculty and staffs along with public transportation. Additionally, vehicle traffic within the campus is carefully controlled. These efforts help to minimize **transportation-related greenhouse gas emissions**, contributing to a cleaner and more sustainable campus environment. Additionally, solar panels on campus provide some of the energy needed.

2. KARE is situated in an area where a large **solar power plant** supplies electricity. This means that while KARE benefits from solar energy in the region, the electricity it uses isn't entirely purchased, the renewable is still involved in generating a portion of it. **(Scope 2)**

3. As part of the university's **zero waste program**, KARE aims to reduce emissions from solid waste. Through STP plan, the sewage water is utilized for garden irrigation and flushing the toilets. Through these initiatives, KARE is actively working to reduce its environmental impact and promote sustainability across various areas, including waste management, water usage, and transportation. **(Scope 3)**

Description:

Scope 1

1. KARE has established a public **transport policy** to facilitate the travel of students, staff using university operated vehicles. Two wheelers and 4 wheelers are prohibited from entering the campus except EV's to promote the use of bicycles or on foot at a short distance within the University to reduce fuel consumption and reduce carbon dioxide emissions.

KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION
Anand nagar, Krishnankoil

Transport Policy of KARE

The Transport Policy provides guideline procedure for the use, control, and maintenance of the vehicles and for the transport management in the campus.

The aims of KARE towards Energy are to:

- Adhere to the regulatory requirements of all relevant legislation (insurance, emission certificate and permits for institute vehicles etc) and be a role model in maintaining higher standards
- Permit vehicles in the campus after a entry record at the main gate
- Maintain records of authorized vehicle users in the campus
- Maintain safety standards in the campus roads like wearing helmet and seat belt
- Appoint qualified and well trained vehicle drivers and mechanics for institute vehicles
- Provide training (including yoga) for the institute's vehicle operators
- Maintain the road standards in the campus and immediate repairs when required

Dr. V. Vasudevan
Registrar

Dr. S. Saravanasankar
Vice-Chancellor

Shri.Dr. K. Sridharan
Chancellor

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https://kalasalingam.ac.in/wp-content/uploads/2021/11/Transportation-Policy.pdf

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No: KARE/TPT/Circular/095/2019/02 Date: 12.06.2019

CIRCULAR

In continuation to circular No: KARE/TPT/Circular/095/2018/01 dated 11.06.2018, all motorized vehicles of faculty and staff will be permitted only up to the temple. Taxis, auto-rickshaws and other outside vehicles are not permitted within the campus. The security team should ensure compliance with this circular. Faculty and staff members are encouraged to their electric vehicles.

In addition, students, faculty and staff members can utilize the battery-powered vehicle facility available in the campus.

VICE CHANCELLOR

Copy submitted to the Chancellor and Vice President-for kind information
Copy to Registrar and Controller of Examinations
Cc: Directors, Deans, Heads of Departments and Chief Warden – for circulation
Cc: to Transport Officer
Cc: to Estate Officer and ASO
Cc: to Principals of all sister institutions

Circular for Restricted Entry of Vehicles inside the campus (Scope 1)

Vehicle Entry Restricted Barricade

2. **Explicit policy on energy management.**
   KARE sees the importance of energy, which the university has a **policy on energy management**, as well as providing training to educate people about energy management to personnel, including students, to be aware and to comply correctly according to the principles. As a result, the University started use renewable energies through **solar plant, solar street lights, biogas.**

3. A plan to set up **solar energy** generation and battery storage charging stations for electric vehicles on campus **by 2027.**

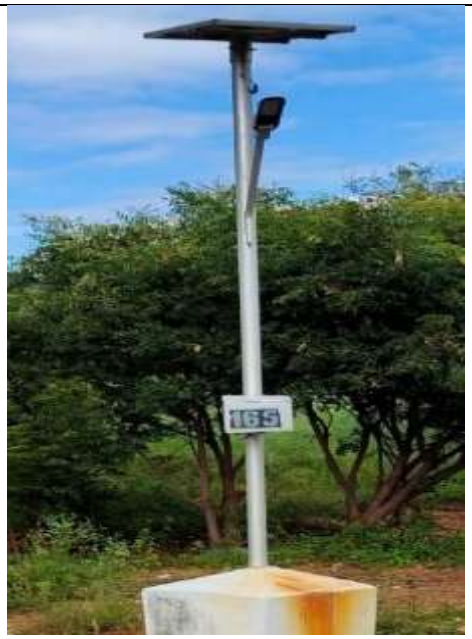
Scope 2:

1. <u>Utilization of Solar Energy in KARE (Energy Conservation)</u>

To conserve electrical energy and to utilize it effectively, KARE has installed solar PV panels to the tune of 1124 kW in building rooftops. Power from solar PV panels shares about 45% of the total power consumption of KARE. As of now solar PV Panels generates about 39,10,216 kWh of energy. 4357 tons of CO_2 emissions are stopped, because of the installation of solar PV panels.

In addition, the setting up of 32 solar street lights of 25 watts and 120 solar street lights of 74 watts are also provides an environmentally friendly atmosphere. The details of the energy consumption of these solar installations in the KARE campus are given as follows:

Rooftop Solar plant



Solar street lighting arrangement in KARE

Scope 3:

Solid Waste Recycling System

Solid waste generated in the campus, is collected at various points as degradable and non-degradable waste using separate bins for collection. Sufficient number of collection bins is present throughout the campus. They are collected and brought to a central location by designated workers using trucks.

Food and Agricultural Waste Management

- **Vermicomposting:** Degradable agricultural residues and food wastes are converted into fertilizer using vermicomposting technology and it is being used for agriculture purposes. On an average 1.1 tons of waste per day is being recycled resulting in about 12 tons of compost. The institution uses this compost in the agriculture farm and also sells to the farmers at a nominal cost.
- **Door Panel from Waste Materials:** Coconut sheath fibers are used in preparing composite materials that can be moulded to prepare door panels which can be a replacement for plywood.
- **Biogas Plant:** Part of the hostel kitchens waste are used to feed the biogas plants and the biogas produced is used in cooking conserving the use of LPG.

Wood Waste Management

Waste Wood Ash generated is being used as a carrier for microbial inoculants that are used as bio fertilizers. This work is supported by a project sanctioned by DST through DST-SEED-STI Hub.

Construction Waste Management

Fly ash, marble dust, granite dust, Ground Granulated Blast-furnace Slag (GGBS), paper burnt ash and sugarcane bagasse ash are used as source materials for the manufacture of eco-friendly construction products such as concrete bricks and paver blocks.

Paper Waste Management

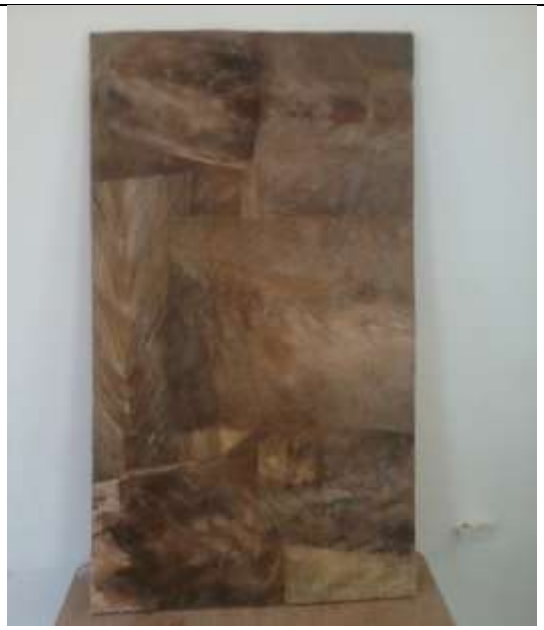
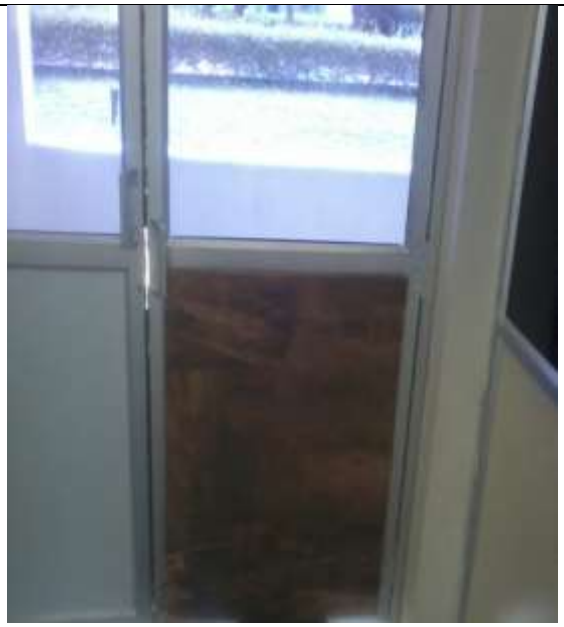
KARE is also partnering in WoW (Well-being Out of Waste), a National Recycling Initiative, by the ITC Ltd, by contributing 21,110 kg of paper waste for the recycling project, amounting to saving of 464 trees in a year.

Sanitary Napkin Incinerators

Sanitary Napkin Incinerators are provided in girls' common rooms and hostel rest rooms. They help in disposing the used napkins in an eco-friendly manner.

Vermicomposting

Biogas Plant

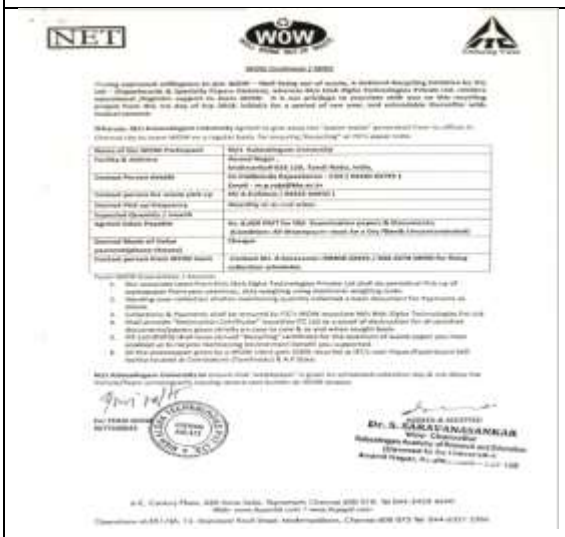
	
Side Door Panel Made from Waste Materials	Side Door Panel Made from Waste Materials Fixed in Door
	
Fermenter used to Produce Microbial Inoculants	Solid Biofertilizer
	
Geopolymer Intervention	Concrete Mixer

Concrete Paver Block Machine

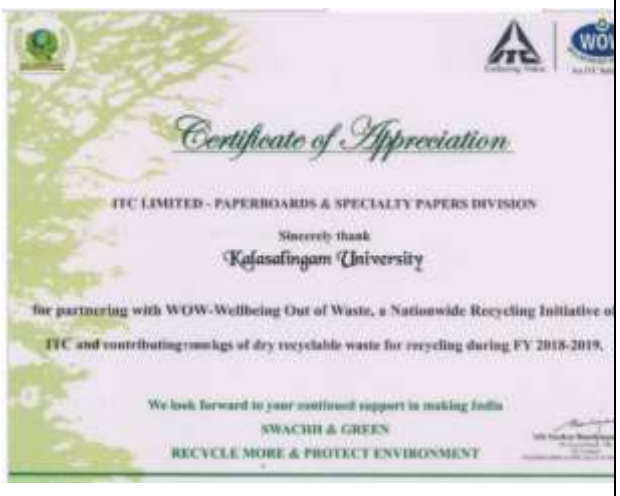
Concrete Drop Weight Impact Testing Machine

Compression Testing Machine

Concrete Bricks in Different Models



MoU copy on Paper waste management



Appreciation certificate for Recycling of Paper waste

Sanitary Napkin Incinerators

STP (sewage treatment plant) recycling

Two high-tech sewage treatment plants with the capacity of 1200 Kiloliters per day are functioning on the campus to recycle the used water from various hostels, main blocks and canteens. The recycled water is used to maintain the green ambience of the campus and also to irrigate the coconut grove. The sewage treatment plant confirms to Pollution Control Board norms and enormously helps to protect the environment. The treated water is recycled for garden purpose and flushing the toilets.

Fig. 1 : Sewage treatment Facility (500kld)

Fig. 2 : Clear water tank Facility in the STP

Fig. 3: Control Panel Room Facility in the STP

Fig. 4: Equalisation Tanks in the STP

Fig. 5: Back Side View of the STP

Fig: 5. Waste Water Treatment and Clear water Storage facility

Rainwater Harvesting System

Considering the location of the institution, KARE has installed various rain water collection systems to sustainably manage the water requirements in the campus. The rain water collected is either used for recharging the ground water through water harvesting pits and trenches or stored in tanks and used.

The rainwater is harvested from the roof top of the academic buildings and hostels. The water is collected through pipes and the collected water is either used for recharging the ground water or taken through canals to the percolation ponds situated at three locations inside the campus.

Hence efficient usage of available water, we follow water conservation policy.

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Water Policy of KARE

Being in a water scarce area, KARE community is well aware of water conservation and related sustainability issues. KARE has the responsibility for future world and willing to go beyond the statutory minimum requirements in protecting the future.

The aims of KARE towards Water Conservation are to:

- Adhere to the regulatory requirements of all relevant legislation and be a role model in maintaining higher standards
- Include water conservation principles in the plans of the institute
- Invest in enhancing water availability (rainwater harvesting, increasing storage facilities, etc) and demand management practices (including waste water recycling) while not compromising on hygiene
- Supervise continuously and review at regular intervals the water usage through water audit
- Create and innovate strategies and methods to implement for improving water use efficiency
- Provide need based training for creating awareness on water use efficiency principles among students and staff
- Monitor the contractors and operators on the institute campus to comply with the requirements of this policy

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https://kalasalingam.ac.in/wp-content/uploads/2021/11/Water-Conservation-Policy.pdf

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