



ਪੰਜਾਬ ਕੇਂਦਰੀਯ ਵਿਸ਼ਵਵਿਦਯਾਲਯ/ਪੰਜਾਬ ਕੇਂਦਰੀ ਯੂਨੀਵਰਸਿਟੀ Central University of Punjab

A Central University established by an Act of Parliament

Central University of Punjab

Policy for Sustainability and Climate Action

The Central University of Punjab was established in 2009 along with other new Central Universities by an Act of Parliament (No. 25 of 2009). Central University has completed a remarkable 17-year journey. The university spans in the lush green campus of 500 acres land in Ghudda village. The university has a mission to provide a wide range of instructional and research facilities across integrated and cross-disciplinary areas, to promote innovation in teaching, learning, and research, and to cross-pollinate new ideas, technologies, and worldviews. It aims to create an ignited workforce responsive to regional, national, and global needs in tune with the requirements of academia, industry, and business. It has 36 departments and 11 schools in the Sciences, Technology, Education, Humanities, Social Sciences, and Law disciplines. It offers UG, PG and Ph.D. programs in these disciplines.

The campus is environment-friendly and energy-efficient, and its Master Plan has been provisionally certified with a **five-star rating by GRIHA Council** and TERI. The Central University of Punjab (CU Punjab) has adopted a wide range of sustainable initiatives to promote an eco-friendly and resource-efficient campus.

Preamble

The CU Punjab is dedicated to advancing sustainability and addressing climate change by adopting ecologically and environmentally friendly practices across campus life, academics, research, and community engagement. The University endeavors to reduce its environmental footprint and contribute to regional, national, and global sustainability goals and seeks to transform itself into a carbon-conscious, resource-efficient, and climate-resilient campus. Further, the university is committed to educating students, raising societal awareness, and training its human resources to actively participate in mitigating and adapting to climate change.

Vision

To transform the CU Punjab into a carbon-conscious, resource-efficient, and climate-resilient campus that is responsive to regional environmental issues and aligns them with national and global sustainability initiatives.



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Goals: The Central University of Punjab aims to:

- Achieve measurable reductions in greenhouse gas emissions
- Promote sustainable use of resources (energy, water, waste)
- Build climate awareness among students and staff through various activities
- Educate the community for climate and sustainability awareness through outreach activities.

Scope of the Policy

- All academic and administrative units
- Students, faculty, and staff
- Campus infrastructure, operations, and outreach activities.

Key Commitments

1. Climate Action and Energy

- Reducing greenhouse gas emissions through energy efficiency
- Promote renewable energy
- Conduct periodic green/energy audits and assessments of carbon footprint

2. Water Conservation

- Expansion and maintenance of rainwater harvesting systems
- Expansion and maintenance of wastewater recycling and reuse
- Monitor water consumption and reduce dependency on groundwater

3. Waste Management

- Segregation of waste at source and all recyclable materials channelized to authorized recycling agencies to minimize landfill disposal and promote circular resource use.
- Minimize waste generation at its source by promoting efficient use of materials, reducing single-use items, and encouraging digital processes over paper-based systems.
- Procurement practices to ensure environmental friendly, durable, and low-waste products to reduce the overall environmental footprint.



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- Maintaining a comprehensive recycling system for paper,
- Adopt and promote the principles of the 7Rs: Refuse, Reduce, Reuse, Repair, Refurbish, Recover, and Recycle in all academic, administrative, and operational activities.
- Sustain and maintain the existing composting, vermicomposting and biogas plants for biodegradable waste generated across the campus, including food waste, garden litter, and organic residues. To promote recycling, composting, and circular practices

4. Sustainable Mobility

- Encourage cycling, walking, and shared transport
- Promote and increase electric vehicles on campus
- Develop pedestrian-friendly infrastructure

5. Biodiversity and Green Campus

- Increase green cover through native plantation drives
- Develop and maintain biodiversity zones on campus
- Promote and increase ecological landscaping practices

6. Sustainable Education and Research

- Integrate sustainability and climate change into the curriculum
- Promote research on regional environmental challenges (water, air, agriculture)
- Encourage student-led sustainability initiatives and innovation

7. Community Outreach and Rural Engagement

- Conduct awareness programs on climate and sustainability in nearby villages
- Support sustainable agricultural practices and water conservation awareness
- Collaborate with local stakeholders to address regional environmental issues.

8. Sustainable Procurement

- Promoting procurement of environment-friendly products, materials, and services.
- Identifying and procuring products/services from suppliers that adhere to sustainable practices, such as eco-label certifications, waste reduction, and life-cycle assessments, to minimize environmental impacts.



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9. *Sustainable Governance*

- Adopting Sustainable practices in forms of governance
- Climate-resilient infrastructure development
- Grant allocation, inviting technical experts, and time towards sustainability and climate action initiatives, projects, and programs
- Developing a target-oriented sustainability plan and achieving the goals

Review: This policy, “Sustainability and Climate Action Policy” of Central University of Punjab, will be reviewed periodically to ensure its effectiveness. At regular interval data will be collected, analysed and reports will be prepared. Based on the report, if any modification to this policy is required, the committee will make the modification and communicate it to all stakeholders.

Policy Formulation and Implementation Committee

1. Prof. Yogalakshmi K. N.
2. Prof. Jitendra Kumar Pattanaik
3. Dr. Naresh Kumar Singla
4. Dr. Pritam Chand
5. Dr. SK Mustak
6. Er. Puneet



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Sustainable initiatives of CU Punjab

The Central University of Punjab (CU Punjab) has adopted a wide range of sustainable initiatives to promote an eco-friendly and resource-efficient campus. Some of the initiatives include

1. **HVAC/Air conditioning** with minimum cooling COP of 6.8 @50% and COP of 3.73@ 100% load has been installed for making the system energy efficient.
2. Further various **building materials such as Fly Ash Bricks, AAC Blocks, maximum use of glass in windows, roof insulation, false ceiling etc. have been adopted** during the construction of buildings, which resulted in reduction of uses of energy in the University Campus.
3. **100% LED lights** are used in all the permanent buildings.
4. At some selected locations, **Solar Street lights** are installed in the Campus for illumination of common area such street lights etc.
5. **Solar Water Heaters** are also installed in the Campus.
6. The University utilizes 100% of the treated waste water which is treated in the 600 KLD **Sewage Treatment Plant** which is re-used as flushing water across all buildings as per demand through an efficient Dual Plumbing System. Further, the balance water from STP is utilized for purpose of irrigation of different orchards and other horticulture works.
7. The waste water generated from the laboratory's areas is also collected and treated by a 1 KLD **Effluent Treatment Plant**.
8. The University is aware about the **rainwater harvesting** potential and structures are designed to capture the maximum rain fall. The University has established seven eight rainwater harvesting systems to collect the excess rainwater from the rooftops in the area. The storm water from roof top area have been planned and routed



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through the storm water drains where the recharge pits are established. Total area available for the RWHS is as below:

Description of area	Area considered (m ²)	Annual Rainfall in (m)	Coefficient factor	Volume of water available annually for rain water harvesting (m ³)
Rooftop area of building / Shed	14,538	0.518	0.85	6,401
Road/Paved area	19,325	0.518	0.65	6,507
Hardscape area	7,269	0.518	0.65	2,447
Green area	19,82,368	0.518	0.25	2,56,717
Total	20,23,500			2,72,072

9. Apart from rainwater harvesting, following efficient **sensor-based technologies** are being used for **water conservation and management activities**:
 - i. 509 number of water-efficient pressmatic taps to use less water.
 - ii. 531 low-flow showerheads that saves upto 40% water.
 - iii. 35 water-efficient urinals with smart controls to reduce unnecessary flushing.
 - iv. 510 dual-flush toilets that Water saves water upto 60%
 - v. 42 number of Sensor based water level indicators connected with solenoid valves for preventing overflow of overhead water takns, hence avoiding wastage of water.
10. The University has taken initiatives to segregate the waste at source which is the first and most important step in **waste management**. The University encourages the process of eco-friendly waste disposal method. Maximum waste generated is recycled and reused. For the same, all housekeeping staffs are trained to segregate waste at source before the waste is dumped for disposal. The different forms of waste generated in the campus are Kitchen waste/ food waste, Paper waste, E waste, dry - organic waste (leaves) and liquid waste/ sewage. The waste that is generated from the canteen is food waste and vegetable peels are mostly sent out to piggeries.



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11. The University also generates a huge amount of Garden waste which is mostly in the form of leaves which are processed by 5 no. **Vermicompost Units** constructed across the campus. The organic waste is deposited in separate chamber and composted to form manure and used for organic farming. The liquid waste is recycled through sewage treatment plant, and used for gardening.
12. The University has established a **Waste Paper Recycling Plant** of recycling capacity of about 15 kg/day. The machine is intended to recycle the waste cardboard, rough pages, old newspapers, magazines, answer sheets etc. generated in the University on a regular basis. The recycled paper prepared by the machine would be utilized for making paper products like file folders, note pads, conference pads, certificates, visiting cards, envelopes, paper bags and other items of general use. The initiative would not only help in reducing the paper waste in the campus but would also reduce the expenditure on purchase of certain products from the market. However, the primary objective will always remain to spread awareness and promote green campus practices.





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