



CHITKARA UNIVERSITY,
PUNJAB

CLIMATE ACTION PLAN

Climate Action Plan, Chitkara University, Punjab

Introduction: Chitkara University is committed to fostering a sustainable future through a comprehensive and actionable climate action plan. As an institution that emphasizes both academic excellence and environmental responsibility, we recognize our role in mitigating climate change and reducing our environmental impact. This Climate Action Plan outlines a strategic framework for reducing greenhouse gas (GHG) emissions, enhancing energy efficiency, and promoting sustainable practices across our campus. It reflects our commitment to achieving a carbon-neutral campus and contributing to global climate goals.

Vision:

To create a sustainable, carbon-neutral campus that serves as a model for higher education institutions in India and globally by 2029.

Mission:

To systematically reduce the university's carbon footprint through renewable energy expansion, sustainable infrastructure development, efficient resource management, and community engagement while aligning with national and global climate action goals.

1. Carbon Emission Reduction Goals

Short-Term Goals (2024-2026):

- Reduce overall carbon emissions by **25%** compared to the baseline year 2022.
- Achieve **50% energy consumption** from renewable energy sources on campus.
- Increase campus-wide green cover by planting an additional **1,500 trees** by 2026.
- Replace **100% of incandescent bulbs** with LED lighting systems by 2025.

Mid-Term Goals (2027-2028):

- Reduce carbon emissions by **50%** relative to 2022 levels by 2028.
- Install and operate an additional **solar energy capacity**.
- Expand the number of **electric vehicle (EV) charging stations** from 2 to 10 by 2029.
- Continuing the practice of **100% waste segregation and recycling** for organic, plastic, and paper waste.
- Continuing the efforts towards a **zero-waste** initiative on campus, focusing on minimizing landfill contributions.

Long-Term Goals (2029):

- Achieve **carbon neutrality** across all university operations by 2029.

- Maximum possible shift of university-owned vehicles to **electric or hybrid models**.
 - Establish a **net-zero energy building** policy for all new constructions and major renovations by 2029.
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2. Energy Management and Renewable Energy Expansion

- **Renewable Energy Production:** Chitkara University currently generates **64% of total demand through solar energy** on campus and aims to increase this to **100% by 2029**. This will be achieved through the installation of additional photovoltaic systems on rooftops and available land. Solar energy will supply at least **90%** of campus energy needs by 2026.
 - **Energy Efficiency:** We have already begun replacing conventional lighting with **energy-efficient LED bulbs**. By 2025, we will achieve **100% replacement** of incandescent bulbs with LED lights. Additionally, motion sensors and smart meters will be deployed to monitor and reduce energy waste in classrooms, offices, and residential facilities.
 - **HVAC System Efficiency:** All existing HVAC systems will be upgraded to **Variable Refrigerant Flow (VRF)** technology, which is **25-30% more energy-efficient** than conventional systems, contributing significantly to energy savings and emissions reductions.
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3. Waste Management and Recycling Initiatives

- **Organic Waste Management:** The university's **organic waste composter** is currently used to process all kitchen and garden waste. This system will be continued to ensure that all organic waste is composted and reused on campus for landscaping and horticultural purposes.
 - **Paper Recycling:** The **paper recycling plant** at Chitkara University will be upgraded to handle larger volumes of paper waste, ensuring that all paper generated on campus is processed and reused in administrative operations.
 - **Waste Segregation:** The university will continue to implement the existing **comprehensive waste segregation system** across all departments, hostels, and cafeterias, encouraging students and staff to separate recyclables from organic and non-recyclable waste.
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4. Transportation and Mobility Solutions

- **Electric Vehicle Infrastructure:** The number of **EV charging stations** on campus will increase from 2 to 10 by 2029, encouraging the use of electric vehicles among faculty, staff, and students. The university will also incentivize the transition to electric and hybrid vehicles by providing subsidies for EV purchases by staff.

- **Sustainable Commute Initiatives:** Chitkara University will promote carpooling, cycling, and the use of public transportation through initiatives like **carpooling apps, bicycle-sharing programs, and subsidized bus passes.**
 - **Green Fleet:** By 2029, the university will move towards greener vehicle fleet with transition to **electric or hybrid vehicles**, reducing emissions from transportation and aligning with our carbon neutrality goals.
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5. Water Conservation and Management

- **Rainwater Harvesting:** Chitkara University currently operates **16 rainwater harvesting systems**, which will be expanded to **25 systems by 2029** to recharge groundwater and reduce the demand for potable water in landscaping and non-drinking applications.
 - **Water Recycling:** The university operates **two Sewage Treatment Plants (STPs)** with capacities of **1 MLD and 250 KLD**, respectively. Treated water from these STPs is used for **horticulture, dual plumbing systems, and Karnal technology**, significantly reducing freshwater demand. We aim to continue the reuse rate of treated water at **100%**.
 - **Low-Flow Fixtures:** Water conservation measures, such as the installation of **low-flow faucets and dual-flush toilets**, will be expanded across all buildings to further reduce water consumption.
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6. Green Building and Sustainable Infrastructure

- **Green Building Certification:** Chitkara University is committed to certifying all new buildings under the **Indian Green Building Council (IGBC)** or equivalent certifications by 2029. The university currently has **1 green building**, and future projects will prioritize energy efficiency, water conservation, and sustainable material usage.
 - **Sustainable Construction Materials:** The use of **locally sourced and sustainable materials** in construction will be prioritized to reduce the environmental impact of new projects. The university aims to source at least **50% of its construction materials** from local suppliers by 2026.
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7. Sustainable Procurement

- **Green Procurement Policy:** A **Green Procurement Policy** already adopted in 2024, ensuring that all goods and services purchased by the university meet environmental standards. This includes prioritizing suppliers with low-carbon products, environmentally friendly packaging, and sustainable practices.
- **Eco-Friendly Products:** By 2026, the university will switch to **100% eco-friendly cleaning products**, including those made from bio-enzymes, which reduce the use of harmful chemicals and lower emissions from production and disposal.

8. Education, Awareness, and Community Engagement

- **Sustainability Curriculum:** Chitkara University will integrate sustainability education into its curriculum across disciplines, ensuring that students are equipped with the knowledge and skills to address climate change challenges.
- **Sustainability Workshops and Events:** The university will continue to host events such as the **30-Day Environmental Challenge**, **World Environment Day** celebrations, and workshops on bio-enzyme making and composting. These events will engage the university community and raise awareness about sustainable living practices.
- **Ecolution Club:** The **Ecolution Club**, Chitkara University's sustainability club, will continue to lead initiatives that promote sustainable behaviors on campus by educating sustainability to students. By 2029, the club aims to have **75% of students actively involved in sustainability activities**.

9. Monitoring and Reporting

- **Annual Carbon Audits:** The university will conduct **annual carbon footprint audits** to monitor progress towards its carbon reduction goals. These audits will measure emissions from all relevant Scope 1, 2, and 3 sources, including energy consumption, transportation, waste management, and water usage.
- **Public Reporting:** Chitkara University will publish an **Annual Sustainability Report** to provide transparency about its environmental performance and progress towards climate action goals.

Conclusion:

Chitkara University's Climate Action Plan demonstrates our dedication to achieving carbon neutrality and promoting sustainability in all aspects of campus life. Through strategic investments in renewable energy, waste management, transportation, water conservation, and education, we are committed to creating a greener, healthier future for our campus community and beyond.

This plan will evolve over time as new technologies, policies, and opportunities arise, ensuring that Chitkara University remains a leader in climate action and sustainability.