

Empowering a Sustainable Future



**LET'S CO-CREATE A CLEANER,
GREENER, AND MORE
INCLUSIVE FUTURE.**

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[HTTPS://TRIDENT.AC.IN/](https://trident.ac.in/)



Introduction

At Trident, sustainability is more than a goal — it is a way of life. Through innovation, service, and education, we aim to build a carbon-neutral, socially responsible, and environmentally conscious campus.



Solar Initiatives

**HARNESSING SOLAR POWER
FOR A BRIGHTER TOMORROW**

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Initiatives that Sparked the Journey

- ❑ **2 KWp Demo Solar Hybrid Unit** gifted by **Skill Council for Green Jobs (SCGJ)**.
- ❑ **10 KWp Solar Rooftop Unit** installed on **Block – 5**, marking the beginning of campus solarization.



Current Solar Infrastructure

- ❑ **235 KWp** Solar Rooftop Units across **3 Hostels.**
- ❑ **23 KWp** PM Suryaghar Rooftop Unit at **Trust office, Sahidnagar (experimental).**
- ❑ **30 KWp** Solar Plant integrated with **Rainwater harvesting trench.**
- ❑ **15 KWp** Nanogrid (**Off-grid**) with:
 - Battery storage
 - Biomass electricity intake
 - Wind power setup



Energy Efficiency Upgrades

❑ Ceiling Fans Replacement

- **Old Fans:** 48-inch, 80 watts
- **New Fans:** BLDC technology, 36 watts
- **Savings:** ~55% energy reduction per fan

❑ Lighting Upgrade

- **Old FTLs:** 40 watts
- **New LEDs:** 18 watts, same lux output
- **Savings:** ~60% energy reduction per tube

❑ HVAC Modernization

- **Old Units:** Conventional HVAC systems
- **New Units:** VRF (Variable Refrigerant Flow) systems
- **Efficiency:** ~50% less electricity for same comfort level



Vision for a Sustainable and Energy-independent Campus

☐ 🌞 Solarize all rooftops on campus by end of 2025.

☐ 🌱 Achieve Net Zero electricity consumption through renewable energy integration.



Rainwater Harvesting

**RAINWATER:
NATURE'S GIFT, OUR RESPONSIBILITY.**



Rainwater Harvesting Across Campus

□ Rooftop rainwater collection implemented across all 3 hostels.

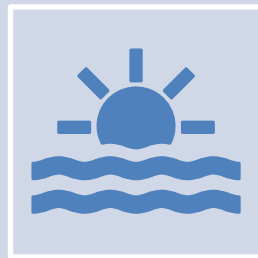
□ Trench-based harvesting system covering 5 acres of campus land.



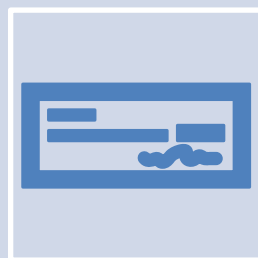
Water Conservation through Circularity and Reuse



Blackwater from all 3 hostels is treated in a 150 KLD Sewage Treatment Plant (STP).



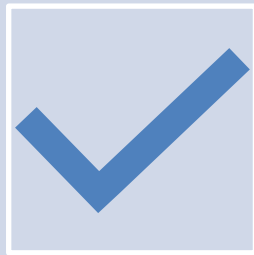
Post-treatment, water is disinfected via UV and stored in an underground sump.



Water is pumped to a 20-meter-high intermediate tank and used for campus gardening via gravity-assisted flow.



Reducing Underground White-Water Withdrawal

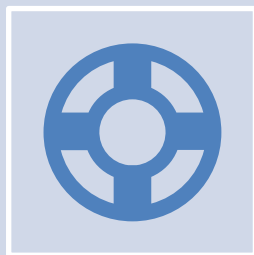


Scope: Gradual replacement of **1,500 old/leaky faucets** across **9 campus buildings**



Goal: Minimize water wastage and reduce dependency on underground white water sources.

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Impact: Significant savings in daily water consumption and improved plumbing efficiency

Leakage Prevention through Faucet Replacement



Other Sustainability Initiatives

**SUSTAINABILITY IN ACTION — FROM
SUNLIGHT TO SOIL.**

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Zero Hunger & Sustainable Food Management

❑ Food Waste Composting & Sustainable Kitchens

- Encouraging eco-friendly kitchen practices
- Reducing food waste through composting
- Promoting circular food systems

❑ Zero Hunger Initiative Focused on:

- **Food Security:** Ensuring reliable access to sufficient, safe, and nutritious food
- **Local Food Systems:** Supporting community-based agriculture and food distribution
- **Nutritious Food Access:** Making healthy food available to all, especially vulnerable populations¹³

❑ Agro Tourism Exposure Visit with Anna Daata

- Likely a hands-on learning experience in sustainable farming
- Promotes awareness of agricultural practices and food origins
- Connects participants with farmers and rural communities



Plastic-Free Campus

❑ Plastic-Free Zones Established

- Designated areas across campus where single-use plastics are banned
- Promotes reusable alternatives (cloth bags, metal bottles, etc.)
- Signage and student volunteers to guide compliance

❑ Student-Led Sustainability Campaigns

- Peer-to-peer education on eco-friendly habits
- Events like “Green Week,” clean-up drives, and upcycling workshops
- Social media challenges to amplify impact

❑ Supporting UN SDG 12

- Encouraging responsible consumption in cafeterias and hostels
- Promoting sustainable procurement and waste segregation
- Collaborating with local vendors for eco-conscious supplies



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Swachhata

Voluntary Service for Cleanliness

□ Inspired by Mahatma Gandhi's Vision

- Embracing the Gandhian principle of *"Cleanliness is next to Godliness"*
- Fostering civic responsibility and respect for public spaces

□ Regular Cleaning Drives by Students & Faculty

- Weekly or monthly campus clean-up events
- Collaborative efforts across departments
- Promotes unity, discipline, and environmental stewardship

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Free Health Check-Up Program

Free Medical Camps in Collaboration with Hospitals

□ Focus on Health Awareness & Preventive Care

- Basic health check-ups: BP, sugar, BMI, etc.
- Awareness sessions on hygiene, nutrition, and lifestyle diseases
- Distribution of health kits and informational brochures

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□ Serving Underserved Communities

- Outreach to rural and low-income areas
- Mobile medical units and on-site consultations
- Volunteer support from medical students and professionals



Blood Donation Drives

Regular Blood Donation Camps

❑ One Unit of Blood Can Save Three Lives

- Supports emergency care, surgeries, and patients with chronic illnesses
- Encourages a culture of compassion and civic responsibility

❑ Student-Led Awareness and Participation¹⁷

- Peer campaigns to educate on the importance of blood donation
- Volunteer coordination and donor registration drives
- Collaboration with certified blood banks and hospitals



Quality Education for All

Equal Access to Quality Education

❑ Scholarships and Outreach Programs

- Financial aid for underprivileged students
- Community-based learning centers and mentorship
- Partnerships with NGOs and educational institutions

❑ Building Future Sustainability Leaders

- Integrating sustainability into curriculum and extracurriculars¹⁸
- Leadership workshops, innovation labs, and green clubs
- Empowering youth to become change-makers in their communities



Our Impact in Numbers

- ⚡ 245+ KWp solar capacity
- 💧 Thousands of liters of water saved
- 🍲 Hundreds of kg food waste managed
- 🌿 15+ schools reached
- ❤️ 5000+ people impacted



Vision Ahead

☐ 🌿 **Carbon-Neutral Campus**

- ☐ Transition to renewable energy sources (solar, wind)
- ☐ Green buildings and energy-efficient infrastructure
- ☐ Carbon offset programs and sustainable transportation

☐ 🏠 **Expanded Outreach to Rural Schools**

- ☐ Mobile education units and digital classrooms
- ☐ Teacher training and curriculum support
- ☐ Scholarships and mentorship for rural students

☐ 🔄 **Integrated Waste-to-Energy Systems**

- ☐ Campus-wide waste segregation and biogas units
- ☐ Composting organic waste for energy and fertilizer
- ☐ Collaboration with tech partners for scalable solutions

☐ 🎓 **Student-Led Sustainability Councils**

- ☐ Leadership in planning and executing green initiatives
- ☐ Policy advocacy and campus sustainability audits
- ☐ Annual sustainability summits and innovation challenges



Thank You

Together, let us lead the way toward a greener, healthier, and more sustainable future for all.

