

ADHIYAMAAN COLLEGE OF ENGINEERING

(An Autonomous Institution)

[Approved by AICTE, Affiliated to Anna University,

Accredited by NBA (CSE, ECE, EEE, IT, BME, Biotech & MCA) and NAAC with "A" Grade]

Dr. M.G.R. Nagar, HOSUR - 635 130, Krishnagiri (Dist.), Tamil Nadu, India.

Dr.R.Radhakrishnan, M.E., Ph.D.,
Principal

WATER CONSERVATION POLICY

Document No.: ACE/IQAC/WCP/2025-26/01

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Review Period: Once in Two Years

Approved By: Governing Body

1. Executive Summary

Adhiyamaan College of Engineering (Autonomous), Hosur, continued its commitment towards sustainable campus development through the effective implementation of the Water Conservation Policy during the Academic Year 2025–26. Recognizing water as a critical natural resource, the institution adopted an integrated approach encompassing water conservation, rainwater harvesting, groundwater recharge, efficient water distribution, wastewater reuse, preventive maintenance, and stakeholder awareness.

The implementation of the policy was coordinated by the Green Campus & Water Management Committee, IQAC, Estate and Maintenance Department, and various academic departments. Regular monitoring, periodic inspections, water audits and awareness programmes ensured responsible utilization of water resources while strengthening the institution's commitment to environmental sustainability, SDG-6 (Clean Water and Sanitation), and SDG-13 (Climate Action).

2. Objectives of Impact Assessment

The impact assessment was undertaken to evaluate the effectiveness of the Water Conservation Policy in achieving institutional sustainability objectives.

The assessment specifically focused on:

- Improvement in water-use efficiency.
- Reduction in avoidable water losses.
- Enhancement of groundwater recharge.
- Utilization of harvested rainwater.
- Wastewater recycling and reuse.
- Stakeholder awareness and participation.
- Improvement in campus greenery through sustainable irrigation.
- Institutional preparedness for Green Campus, NAAC, NBA, and NIRF sustainability requirements.

3. Major Water Conservation Initiatives Implemented

During AY 2025–26, the institution implemented several initiatives to strengthen sustainable water management across the campus.

Infrastructure Development



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ACE continued to maintain and improve its water conservation infrastructure by strengthening rainwater harvesting systems, groundwater recharge facilities, storage tanks, and water distribution networks. Preventive maintenance activities ensured uninterrupted water supply while minimizing leakage losses.

Major initiatives included:

- Maintenance of rainwater harvesting structures.
- Cleaning of recharge pits and recharge wells.
- Regular inspection of water storage tanks.
- Leak detection and repair of pipelines.
- Maintenance of borewell distribution systems.
- Optimization of irrigation systems.
- Preventive maintenance of water pumps and plumbing fixtures.

Operational Measures

The institution adopted responsible water management practices in day-to-day operations.

Key operational initiatives included:

- Monthly monitoring of water consumption.
- Scheduled inspection of plumbing systems.
- Timely rectification of water leakages.
- Controlled use of potable water.
- Efficient irrigation scheduling.
- Water-saving awareness displays across the campus.
- Water conservation messages during institutional programmes.

Awareness Initiatives

Several awareness programmes were organized to promote responsible water utilization among students and employees.

These included:

- World Water Day celebrations.
- Green Campus awareness campaigns.
- Student competitions.
- Expert lectures.
- Community outreach programmes.
- Water conservation pledge activities.
- Department-level awareness sessions.

4. Impact Assessment

4.1 Improvement in Water Use Efficiency

The implementation of preventive maintenance, regular monitoring, and responsible water management practices significantly improved the efficiency of water utilization across the



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campus. Departments demonstrated better adherence to water-saving practices, while administrative units actively monitored water consumption.

The adoption of leak prevention measures and periodic inspections minimized avoidable water losses and improved the reliability of campus water distribution systems.

Major Impact

- Better utilization of available water resources.
- Reduced water wastage.
- Improved operational efficiency.
- Increased accountability among departments.
- Enhanced institutional water management.

Documentary Evidence

- Monthly Water Consumption Register.
- Water Meter Reading Records.
- Maintenance Registers.
- Plumbing Inspection Reports.
- Estate Office Records.

4.2 Rainwater Harvesting and Groundwater Recharge

The institution continued to strengthen groundwater sustainability through systematic maintenance of rainwater harvesting structures and recharge facilities. Regular cleaning of recharge pits and proper storm water management enhanced groundwater recharge during the monsoon season.

The availability of recharge infrastructure reduced dependence on external water sources and contributed towards long-term water security.

Major Impact

- Increased groundwater recharge.
- Improved groundwater sustainability.
- Better utilization of rainwater.
- Reduced surface runoff.
- Strengthened campus water resilience.

4.3 Reduction in Water Losses

Routine inspection of pipelines, valves, taps, overhead tanks, and underground distribution systems enabled early identification and rectification of water leakages.

Prompt maintenance activities significantly reduced avoidable water losses and improved operational reliability.

Major Impact



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- Reduction in leakage-related losses.
- Improved plumbing efficiency.
- Reduced maintenance downtime.
- Better water distribution.
- Improved service reliability.

4.4 Improvement in Water Quality Management

The institution continued to provide safe drinking water through regular cleaning of storage tanks and periodic water quality testing.

Maintenance of drinking water systems ensured uninterrupted availability of potable water for students, faculty, staff, and visitors.

Major Impact

- Improved drinking water quality.
- Enhanced public health and hygiene.
- Better compliance with safety standards.
- Increased confidence among campus users.

4.5 Sustainable Irrigation and Campus Greenery

The institution optimized irrigation schedules and encouraged efficient utilization of available water resources for maintaining landscaped areas and green cover.

Wherever feasible, non-potable water was utilized for gardening activities to reduce dependence on freshwater.

Major Impact

- Sustainable landscape maintenance.
- Improved campus greenery.
- Reduced freshwater demand for irrigation.
- Enhanced biodiversity within the campus.

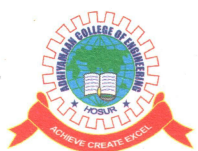
4.6 Stakeholder Awareness and Behavioural Change

The Water Conservation Policy significantly improved awareness regarding responsible water utilization among students, faculty members, and staff.

Awareness campaigns encouraged stakeholders to avoid water wastage, report leakages, and adopt sustainable water-use practices in classrooms, laboratories, hostels, and common facilities.

Major Impact

- Responsible water-use behaviour.
- Increased stakeholder participation.
- Improved environmental consciousness.



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- Strengthened Green Campus culture.

4.7 Integration with Teaching, Research and Student Learning

Water conservation principles were integrated into academic activities through student projects, laboratory experiments, seminars, and interdisciplinary research initiatives.

Students actively explored topics such as:

- Rainwater harvesting.
- Smart water management.
- Water quality monitoring.
- Wastewater treatment.
- IoT-based water monitoring systems.
- Sustainable irrigation technologies.

These initiatives enhanced experiential learning and encouraged innovative solutions to real-world water management challenges.

Major Impact

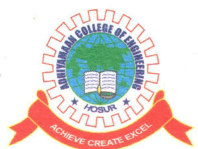
- Improved project-based learning.
- Enhanced interdisciplinary research.
- Increased environmental awareness among students.
- Better industry relevance.

5. Outcome Analysis

Outcome Area	Institutional Impact
Water Use Efficiency	Improved significantly
Rainwater Harvesting	Better utilization and recharge
Water Leak Management	Strengthened preventive maintenance
Drinking Water Quality	Improved safety and reliability
Sustainable Irrigation	Optimized water utilization
Student Participation	Increased involvement
Faculty Participation	Enhanced awareness and integration
Environmental Sustainability	Strengthened Green Campus initiatives
Institutional Governance	Improved monitoring and accountability

6. Key Performance Indicators

Performance Indicator	Status
Annual Water Audit	Completed
Rainwater Harvesting Maintenance	Periodically undertaken
Water Consumption Monitoring	Monthly
Leak Detection and Rectification	Regular
Water Quality Testing	Conducted periodically



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Awareness Programmes	Conducted throughout the year
Student Participation	Active
Green Campus Activities	Regular

7. Best Practices Observed

The following practices significantly strengthened institutional water management during AY 2025–26:

- Regular preventive maintenance of plumbing infrastructure.
- Functional rainwater harvesting and groundwater recharge systems.
- Periodic water quality monitoring.
- Leak reporting and prompt rectification mechanism.
- Water conservation awareness campaigns.
- Sustainable irrigation scheduling.
- Integration of water conservation into student learning and research.
- Continuous monitoring through IQAC and the Green Campus Committee.

9. Overall Impact

The implementation of the Water Conservation Policy during AY 2025–26 substantially improved the institution's approach to sustainable water management. Through systematic monitoring, maintenance of water infrastructure, rainwater harvesting, groundwater recharge, and awareness programmes, the College strengthened water-use efficiency, minimized avoidable losses, and promoted responsible water stewardship among all stakeholders.

The policy has also enhanced the institution's preparedness for accreditation and sustainability assessments by establishing documented procedures, measurable performance indicators, and verifiable evidence of implementation. These initiatives reinforce Adhiyamaan College of Engineering's commitment to environmental sustainability, responsible resource utilization, and continuous quality improvement.

Prepared by IQAC


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