ICFAI Foundation for Higher Education
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SDG-6 Report

6 Clean Water and Sanitation

Ensure Access to Water and Sanitation for all



Campus Address: Dontanapally, Shankarapalli Road,
Hyderabad - 501203, Telangana, India

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Executive overview

CLEAN WATER AND SANITATION | SUSTAINABLE DEVELOPMENT GOAL 6

The ICFAI Foundation for Higher Education (IFHE), Hyderabad, integrates water stewardship into campus operations, infrastructure planning, teaching, research and community engagement. This 2026 report emphasis on measurable resource management, safe drinking water, wastewater treatment, reuse and outreach.

2026 at a glance

Campus community	**11,939**
Municipal supply	Approximately 1,000 kL/day since July 2025
Groundwater abstraction	Approximately 200 kL/day, reduced from around 1,000 kL/day
Wastewater infrastructure	Two STPs: 1,600 KLD and 100 KLD; 1,700 KLD combined rated capacity
Treated wastewater	Approximately 900 kL/day reported STP output
Reuse and pond transfer	Approximately 180 kL/day directly reused; 720 kL/day transferred to pond
Safe drinking water	23 RO plants and 10 drinking-water chillers
Rainwater management	14 rainwater harvesting pits

01 Institutional context and SDG 6 commitment

IFHE is a deemed-to-be university at Dontanapally, Shankarpalli Road, Hyderabad, Telangana. Its multidisciplinary learning environment supports sustainable development through academic inquiry, campus practice and engagement with surrounding communities. SDG 6 is addressed as a whole-of-campus responsibility: water sourcing and measurement, quality assurance, treatment and circular use, water-sensitive landscapes, and public education.

The university's Water Conservation Policy originated in 2021 and was renewed/reviewed in 2023, with the latest policy stated as valid until 2026. Its priorities include reduced freshwater dependence, reuse of treated wastewater, rainwater harvesting, efficient plumbing fixtures, groundwater stewardship and periodic monitoring. Institutional reporting connects these actions with relevant SDG targets.

02 Water sourcing, metering and demand management

All incoming sources are reported as metered, recorded and monitored. From July 2025, the Hyderabad Metropolitan Water Supply and Sewerage Board (HMWSSB) increased municipal potable-water supply from approximately 200 to 1,000 kL/day. Correspondingly, reported borewell withdrawal declined from approximately 1,000 to 200 kL/day. Total daily consumption was described as broadly unchanged, even as the campus community grew by approximately 18%, from 10,151 to 11,939.

The shift in source composition reduces dependence on groundwater abstraction while retaining operational supply resilience. Water management includes periodic pipeline inspections, meter readings, leak identification and conservation signage. Source-specific logs, monthly consumption reconciliations and calibration records are important supporting evidence for annual disclosures.

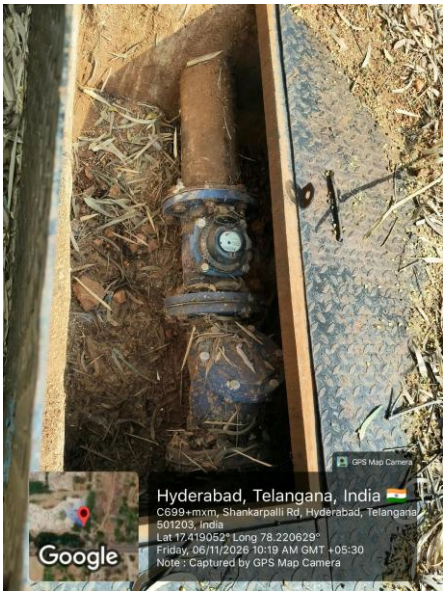


Figure 1. Metering infrastructure on the municipal water-supply pipeline; GPS-tagged photograph, 06-11-2026.



Figure 2. Borewell discharge-monitoring meter; GPS-tagged photograph, 06-11-2026.

03 Drinking-water safety and equitable access

IFHE supplies drinking water at no charge to students, faculty, staff and visitors through 23 reverse-osmosis (RO) purification plants located across academic, residential and common-use facilities. Ten additional chillers provide cooled drinking water at selected points. Water is distributed from 1,400 kL underground sump to overhead tanks and campus facilities.

Technicians maintain RO equipment and replace filters as required. The 2026 responses specify quarterly rotational testing of RO and potable-water samples at government-approved laboratories, with monthly testing of water supplied to messes. Sampling records, laboratory certificates, maintenance logs and location inventories are central to demonstrating that access is not only available but consistently safe.



Figure 3. Campus RO water purification system and associated storage; GPS-tagged photograph, 04-11-2026.

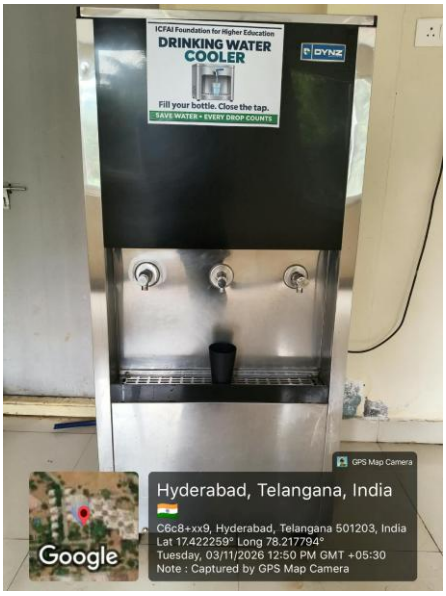


Figure 4. Drinking-water cooler with visible water-conservation messaging; GPS-tagged photograph, 03-11-2026.

04 Wastewater treatment and circular water management

The campus operates two sewage treatment plants (STPs), rated at 1,600 KLD and 100 KLD. The combined capacity is 1,700 KLD. Treatment uses physical and biological processes to prepare wastewater for non-potable applications. The current responses describe approximately 900 kL/day of treated output: around 180 kL/day directly reused for irrigation and landscaping, and approximately 720 kL/day transferred to the on-campus artificial pond.

The pond forms part of the campus water-management landscape and is described as supporting recharge and ecological functions. RO reject water is a potential non-potable resource: used for toilet-flushing and other suitable applications, subject to water quality.



Figure 5. Wastewater treatment infrastructure at IFHE; GPS-tagged photograph, 04-11-2026.

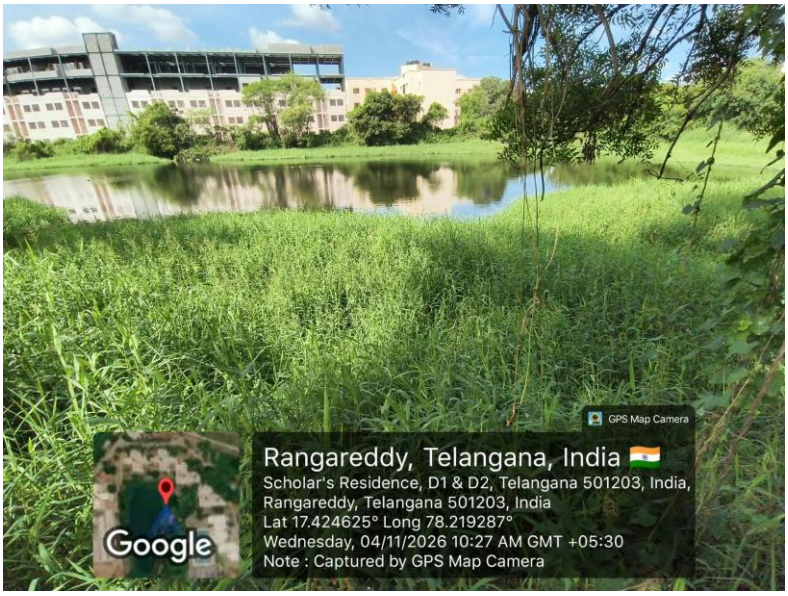


Figure 6. Artificial pond and surrounding green buffer; GPS-tagged photograph, 04-11-2026.

Water reuse accounting

Treated STP output	**900,000 litres/day**
Directly reused on campus	180,000 litres/day (20%)
Directed to artificial pond	720,000 litres/day (80%)
RO system rated throughput	23 plants × 1,000 litres/hour
RO recovery assumption	60% (rated)

At a nominal combined RO production rate of 23,000 litres/hour and 60% recovery, the implied feed rate is approximately 38,333 litres/hour and reject stream 15,333 litres/hour. These are capacity-based estimates, not measured daily volumes.

05 Rainwater harvesting, landscapes and efficient buildings

IFHE has 14 rainwater-harvesting pits that intercept runoff and promote infiltration. Water-sensitive campus design includes landscaping supplied with treated water, drought-tolerant plantings and irrigation

systems intended to avoid unnecessary freshwater demand. Campus buildings incorporate conservation-oriented fittings including pressure regulators, aerators, flow restrictors, dual-flush toilets and sensor-operated taps; regular inspections and leak detection support their effectiveness.

Construction practices include prefabricated columns and Robomatic wall systems, intended to reduce plastering and curing-related water requirements.



Figure 7. Drought-tolerant ornamental planting in campus landscaping; GPS-tagged photograph, 03-11-2026.



Figure 8. Sprinkler irrigation of a campus lawn; GPS-tagged photograph, 06-11-2026.

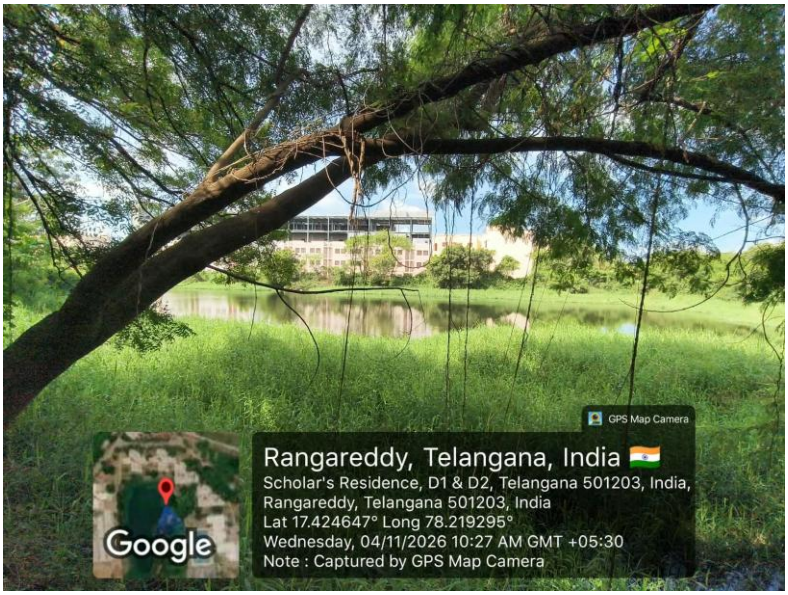


Figure 9. Pond landscape and vegetation, providing a visible water-management asset; GPS-tagged photograph, 04-11-2026.

06 Community education, conservation and partnerships

IFHE extends SDG 6 education beyond campus through Unnat Bharat Abhiyan (UBA) activities and engagement with surrounding communities. The 2026 responses describe awareness and practical learning on rainwater harvesting, groundwater conservation, sanitation, efficient irrigation, water-quality management and responsible water use. Faculty and students contribute scientific perspectives alongside locally appropriate practices.



Figure 10. School-based water-conservation awareness session: "Save Water & Save Earth" message. Event date and location require confirmation.



Figure 11. On-campus water body and surrounding residential landscape; illustrative infrastructure evidence, not proof of a specific government partnership.

From awareness to documented impact

A strong community evidence trail connects each outreach event to its date, village, organizing unit, partner, participant count, educational content and follow-up.

07 Research and knowledge contribution

Research broadens the university's contribution beyond physical infrastructure. The SCOPUS-aligned SDG 6 bibliography covers hygiene and sanitation policy, affordable wastewater treatment, smart irrigation, environmental sensing and aquatic-resource management.

1. Thakkar, J. J.; Rathore, R.; Chatterjee, C. (2024). Analyzing interrelationships among factors affecting hygiene and sanitization in India: key insights and policy recommendations. *International Journal of Social Economics*. DOI: 10.1108/IJSE-11-2022-0761.

2. Agarwal, M.; Anirudhan, A.; Dutta, S. (2024). GREEN WATECH: low-cost technology for wastewater treatment. *Emerald Emerging Markets Case Studies*. DOI: 10.1108/EEMCS-04-2024-0185.

3. Potluri, S.; Deevena Raju, B.; Kommireddy, V.; Srihitha, J. A. (2024). Agriculture and AI: A Subtle Conjunction of Predictive Analysis and Voice Assistance in the World of Agriculture. *AI in Agriculture for Sustainable and Economic Management*. DOI: 10.1201/9781003451648-8.

4. Nukhu, R.; Singh, S. (2024). Buying Used Clothes: Technology-Enabled Sustainability. *Women's Private Practices of Knowledge Production in Early Modern Europe*. DOI: 10.4324/9781003487180-34.

5. Paliyanny, H.; Thinakaran, R.; Jalari, S.; Neerugatti, V.; Nalluri, M. R.; Cholla, R. R. (2024). Smart Agriculture: Enhancing Crop Management through IoT-Based Real-Time Monitoring and Automation. *Proceedings of ICITDA 2024*. DOI: 10.1109/ICITDA64560.2024.10809990.

6. Gupta, M.; Pandey, M.; Kakkar, A. (2025). A Review of Consumer Perspectives on Green Apparel. *Springer Proceedings in Materials*. DOI: 10.1007/978-981-97-5902-6_15.

7. Kolandaisamy, R.; Thirupathaiah, M.; Dixit, R. S.; Choudhary, S. L.; Sreeram, A.; Raj, N.; Neelamegam, D. (2025). Smart Environmental Engineering for Sustainable Aquatic Resource Management Using IoT Sensors, Satellite Data Fusion, and Machine Learning Analytics. *Natural and Engineering Sciences*. DOI: 10.28978/nesciences.1811172.

8. Sreejith, S.; Panigrahy, A. K.; Ajayan, J.; Radhika, J. M.; Reddy, N. V. R.; Reddy, N. V. U.; Umamaheswaran, S. (2025). IoT sensor-based systems in real-time monitoring of health and environment: a review. *Journal of the Korean Physical Society*. DOI: 10.1007/s40042-025-01378-7.

08 SDG target alignment and performance assurance

SDG 6.3 — Water quality and wastewater	Two STPs, drinking-water testing, RO treatment, direct reuse and monitored pond transfer.
SDG 6.4 — Water-use efficiency	Source metering, reduced groundwater abstraction, efficient fixtures, irrigation management.
SDG 6.5 — Integrated water resources	Water Conservation Policy, rainwater harvesting, groundwater monitoring, outreach.
SDG 6.6 — Water-related ecosystems	Artificial pond and vegetated landscape; ecological outcomes.
SDG 6.B — Community participation	UBA-led community education and locally relevant conservation awareness.

Conclusion

In 2026, IFHE demonstrated an integrated approach to Clean Water and Sanitation through more diversified water sourcing, measurable groundwater reduction, accessible drinking-water systems, treatment infrastructure, water-conscious landscaping and community outreach. The reported increase in campus population alongside broadly stable daily water demand is a meaningful management indicator.