SDG 13

CLIMATE ACTION

INTRODUCTION

Sustainable Development Goal 13 calls on institutions and communities everywhere to take urgent action to combat climate change and its impacts — strengthening resilience and adaptive capacity, integrating climate measures into policy, and building climate awareness at every level of society.

At SRM University-AP, climate action is approached as a shared institutional responsibility that runs across academics, campus operations, research and community outreach. The University's contribution to SDG 13 rests on four mutually reinforcing pillars: a green, resource-conscious campus that demonstrates climate-resilient design and everyday sustainable practice; a dedicated Department of Environmental Science and Engineering driving climate-focused research, teaching and innovation; a calendar of events, lectures and student-led initiatives that build climate literacy across disciplines; and outreach programmes that extend environmental awareness, tree plantation and waste-reduction practices into neighbouring communities.

This section presents SRM University-AP's verified climate action footprint for the reporting period — from green-campus infrastructure and biodiversity-conscious landscaping, to climate research output, flagship events, and grassroots outreach — as one connected institutional story of climate mitigation, adaptation and awareness.



CLIMATE ACTION & GREEN CAMPUS

SRM University-AP's campus is designed and maintained as a living demonstration of climate-conscious infrastructure — from renewable-energy-linked waste processing to extensive tree cover and landscaped green corridors that support biodiversity, moderate the local micro-climate and reinforce a culture of environmental responsibility among students and staff.

Green Campus Infrastructure

● Biogas Plant — SDG 7 & SDG 13

The campus Biogas Plant converts organic waste generated on campus into clean energy, keeping biodegradable waste out of landfill while supporting the University's move toward renewable, low-carbon energy sources — a direct, verified link between waste management and climate mitigation on campus.



● Tree-Plantation Drives — SDG 13 & SDG 15

Regular tree-plantation drives, involving faculty and students, are rooted in a vision for lasting environmental change. Beyond adding to campus green cover, these drives directly support the climate-mitigation and biodiversity-conservation goals of SDG 13 and SDG 15 together, embedding tree stewardship into everyday campus life.



● Campus Greenery & Climate Resilience

Tree-lined avenues, landscaped hedges and ornamental plantings run throughout the SRM University-AP campus, forming green corridors between academic blocks and residences. This vegetation cover contributes to climate resilience by moderating surface temperatures, supporting local biodiversity and reinforcing the campus's carbon-conscious character — visible across the campus in every season.













Department of Environmental Science and Engineering

Climate research and teaching at SRM University-AP is anchored by the Department of Environmental Science and Engineering, which — per the University's official department page — has produced 337 publications and 17 patents to date, and offers MSc, M.Tech and PhD programmes in environmental and sustainable engineering.

Located close to the biodiversity-rich Eastern Ghats, the Bay of Bengal coastline, and Kolleru Lake — a wetland of international importance under the Ramsar Convention — giving students direct field access to diverse climate-relevant ecosystems.

Specialised research infrastructure includes a Net-Zero Lab, a Terrestrial Ecology and Modelling Lab, an Aquatic Biogeochemistry Lab, and a Coastal and Environmental Hydrology Lab, among others.

Research areas of direct relevance to SDG 13 include climate change modelling and atmospheric processes, carbon sequestration, decarbonisation, extreme climate, land-atmosphere interactions, renewable energy, and vegetation modelling.

Reference: Department of Environmental Science and Engineering, SRM University-AP — srmap.edu.in/seas/environmental-science-and-engineering

OUTREACH

SRM University-AP extends climate awareness and environmental conservation beyond the campus through student-led community outreach. During the reporting period, the Paari School of Business (PSB) delivered two outreach activities directly focused on climate awareness, tree plantation and waste reduction in neighbouring communities.

● Plantation Drive for Environmental Sustainability

Date & venue: 15 March 2026, Government Primary School, Neerukonda

Coordinators: M.V.N. Naga Lakshmi and M. Puviarasu, Paari School of Business (PSB)

Partners: Rotary Club, Green Future Initiative, and the Rotaract Club of Vijayawada Elite League

Participation: 51 attendees, including 40 community members and 11 undergraduate students

The drive saw 30 saplings planted within the school premises — ten by the student team and twenty with support from partner organisations — alongside soil-preparation work and a short awareness session on the importance of tree cover. Students were guided through the planting process while being introduced to core ideas in environmental conservation and sustainability, turning the activity into hands-on experiential learning rather than a one-off gesture.

The immediate outcome was a visibly greener, more pleasant school environment; the longer-term aim is for students to take ownership of monitoring and maintaining the saplings, extending the drive's impact well beyond planting day.







● Plastic-Free Awareness Drive

Date & venue: 2 March 2026, Sri Rama High School (ZPHS), Mothadaka village, Tadikonda Mandal, Guntur

Coordinators: Dr Nagalakshmi MVN and Dr Puviarasu M, with a six-member PSB student volunteer team

Participation: 56 students from Classes 6–8

The session combined a structured presentation on plastic types, their widespread use, and their health and environmental impacts with an interactive discussion built around the 3Rs — Reduce, Reuse and Recycle. A pre-awareness questionnaire assessed students' existing knowledge before the session, and a creative poster-making task on "Plastic-Free Awareness" reinforced the learning through practical expression.

Students left with a stronger grasp of plastic pollution and sustainable alternatives, and many expressed an intention to cut plastic use in daily life — the kind of behavioural groundwork the drive was designed to plant, alongside the trees, in the same communities.





EVENTS AND INITIATIVES

SRM University-AP recorded 17 unique SDG 13-tagged events and initiatives during the reporting period (per the University's consolidated SDG 13 event register), spanning guest lectures, summits, exhibitions, industry co-teaching sessions and experiential learning visits. The most significant, best-documented events are detailed below; the remaining events are summarised in the table that follows.

● Green Hydrogen Summit 2025

18 July 2025 · 62 participants · Partners: NREDCAP (Govt. of Andhra Pradesh), Greenko, AM Green, KPI Green Hydrogen and others

The Department convened industry and government stakeholders for a focused summit on green hydrogen as a pathway to decarbonisation, bringing together public-sector renewable energy agencies and leading green hydrogen producers active in Andhra Pradesh. The summit strengthened the University's industry linkages in the clean-energy space and gave students direct exposure to the policy and technology landscape shaping India's green hydrogen economy.



● Guest Expert Lecture Series: Extreme Weather Events — Monitoring, Prediction and Early Warning for a Sustainable Future

20 January 2026 · 2,951 participants · Speaker: Shri Anand Kumar Sharma, Regional Meteorological Centre, New Delhi

One of the department's largest-ever climate outreach events, this lecture drew nearly 3,000 attendees for a session on monitoring and forecasting extreme weather events and building early-warning systems — directly addressing the climate-adaptation and resilience dimension of SDG 13. The scale of participation reflects the depth of interest in climate risk and disaster-preparedness topics across the student body.





● Guest Expert Lecture: Valorisation of Lignin and Nanolignin for Various Applications

8 January 2026 · 358 participants · Speaker: Prof. Dr Widya Fatriasari, Research Center for Biomass and Bioproducts, National Research and Innovation Agency

This lecture examined how lignin — a byproduct of biomass processing — can be valorised into higher-value, sustainable materials, connecting circular-economy thinking with climate-conscious resource use. The session gave students insight into an international research programme working at the intersection of biomass utilisation and low-carbon materials science.





● Green Metallurgy and Circular Materials Recovery

17 April 2026 · 56 participants · MoU Partner: Dr Dina Magdy Abdo, Central Metallurgical Research and Development Institute (CMRDI), Egypt

Delivered under an international MoU partnership, this lecture explored low-carbon approaches to metals processing and the recovery of materials within a circular economy — linking industrial decarbonisation with sustainable materials management, a growing research priority for climate-conscious manufacturing.





● The Role and Opportunities for ESG Managers in Various Industries

23 February 2026 · 28 participants · Speaker: Mr Karthick V, Sustainability Manager

Aimed at building career-facing sustainability literacy, this session unpacked the growing role of Environmental, Social and Governance (ESG) managers across industries, connecting classroom learning on climate policy and reporting with real-world corporate sustainability practice.

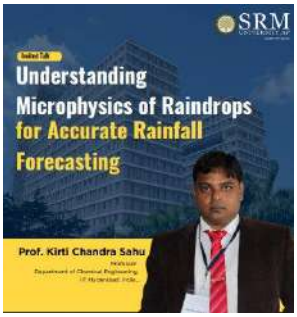




● Guest Lecture: Understanding the Microphysics of Raindrops for Accurate Rainfall Forecasting

17 July 2025 · 475 participants · Speaker: Prof. Kirti Chandra Sahu, Department of Chemical Engineering, IIT Hyderabad

This lecture brought fundamental atmospheric-science research on rainfall formation to a wide student audience, strengthening the department's engagement with the climate-modelling and forecasting themes central to its research portfolio and to SDG 13's early-warning and resilience agenda.





Other SDG 13 Events and Initiatives

Alongside the major events above, the following activities were also recorded under SDG 13 during the reporting period:

• High Efficiency Drive Systems: Current Applications and Emerging Solar-Driven Solutions — 6 July 2026 (15 participants)

• Integrating Traditions: A Symposium on Indian Knowledge Systems (IKS) — 22 May 2026 (789 participants)

• 50th All India Sociological Conference (AISC) 2025 — 28 December 2025 (422 participants)

• Industry Co-teaching (ENV 250) — 22 January 2026 (135 participants)

• Industrial Decarbonisation: From GHG Accounting to Net-Zero Roadmap — 13 April 2026 (28 participants)

• A Journey Towards the Development of Sustainable Energy Materials: Bioinspired to Hierarchical Coordination Molecules — 10 April 2026 (340 participants)

• Industry Co-teaching (ESE 505), with HP Green R&D, Hindustan Petroleum Corporation Limited — 6 October 2025 (150 participants)

• Real-Time Exposure and Experiential Learning Visit — 5 December 2025 (62 participants)

• Industrial Exposure and Experiential Learning Visit — APGENCO — 10 December 2025 (62 participants)

• Industrial Exposure and Experiential Learning Visit — 12 September 2025 (132 participants)


SRM
Palnadu, Andhra Pradesh, India
Google

RESEARCH & PUBLICATIONS

SRM University-AP's climate-relevant scholarly output, tracked under the SDG 13: Climate Action category in Scopus/SciVal for 2025-2026, reflects a growing and internationally connected research base spanning climate modelling, renewable energy, carbon capture, and environmental sustainability.

103	492	1.29
Scholarly Publications	*Citation Count*	*Field-Weighted Citation Impact*

51	49.5%	3,432
International Collaborations	*Publications Co-authored Internationally*	*Views Count*

Leading research themes: Keyphrase analysis of the University's SDG 13 publication set highlights carbon dioxide reduction, carbon capture and utilisation, green hydrogen, climate modelling, electrocatalysis, sustainable manufacturing and life-cycle analysis as recurring, high-relevance research themes — alongside direct engagement with the Sustainable Development Goals framework itself.

Publications

The following publications, drawn from the University's verified 2025–2026 SDG 13 publication list, represent some of its strongest and most field-relevant climate-related research by Field-Weighted Citation Impact (FWCI):

An overview on novel $CsPbBr_3$-based perovskite photocatalyst for environmental and energy applications Chauhan, Sambyal, Kumar, Raizada, Parwaz Khan, Selvasembian, et al. (2026) · FWCI 7.24. Reviews advances in perovskite photocatalysts with applications spanning pollutant degradation and clean-energy generation.

Experimental investigation on productivity enhancement in solar stills using phase-change material Maheswaran, Kumaresan, Vigneswaran, Prasanna Naveen Kumar (2026) · FWCI 6.52. Demonstrates encapsulated metal-foam composite phase-change materials that boost round-the-clock output of solar desalination stills — a low-carbon water-treatment technology.

Data-driven model development for the prediction of photocatalytic CO_2 conversion Meenatchi Sundaram, Franco Aguado, Uddin, Juneja, Rajendran (2026) · FWCI 6.48. Applies data-driven modelling to predict and optimise photocatalytic conversion of CO_2 into useful products, supporting carbon-capture-and-utilisation research.

Green hydrogen pathways for a net-zero future: technologies, circular economy integration, life-cycle performance and safety dimensions Kundu, Barathi, Pooja, Surya, Jacob, Koley, et al. (2026) · FWCI 5.78. A comprehensive review connecting green hydrogen technology choices to circular-economy and life-cycle outcomes on the path to net zero.

Refining offshore wind energy potential estimates through the integration of technological evolution and climate change projections Nagababu, Patwa, Puppala, Kachhwaha, Sricharan, et al. (2026) · FWCI 4.62. Integrates climate-change projections directly into offshore wind resource assessment, sharpening long-term renewable-energy planning under a changing climate.

Efficient UAV-based forest fire detection using CNN and YOLOv8 integration Bhargav, Singh (2025) · FWCI 3.96. Develops a deep-learning, drone-based system for early forest-fire detection — a climate-adaptation tool for a warming, fire-risk-prone environment.

Religion and Ecology: Religious Beliefs and Practices in Conserving Ecology and Adapting to Climate Change Among the Bishnois of the Thar Desert, Rajasthan Bikku (2025) · FWCI 4.98. Examines indigenous religious practice as a driver of ecological conservation and climate adaptation — broadening the University's climate research into the social sciences.

CONCLUSION

Across campus infrastructure, research, events and community outreach, SRM University-AP's climate action forms a single connected chain — from building awareness to taking action to demonstrating measurable impact:

SRM University-AP's engagement with SDG 13 is built on tangible, verifiable action rather than declaration alone: a campus that generates clean energy from its own waste and grows its green cover year on year; a dedicated Environmental Science and Engineering department producing internationally cited climate research; a packed calendar of climate-focused lectures, summits and industry engagements reaching thousands of students; and outreach programmes that carry tree-plantation and plastic-reduction practices into neighbouring schools and communities.

Taken together, these pillars show climate action embedded in the University's everyday functioning — in its labs, its landscaping, its lecture halls and its outreach vans alike. As SRM University-AP's research base and campus infrastructure continue to grow, so too does its capacity to contribute meaningfully to climate mitigation, adaptation and resilience — for its own campus community and for the wider Andhra Pradesh region it calls home.