Dr.M.G.R.
EDUCATIONAL AND RESEARCH INSTITUTE
Deemed to be University

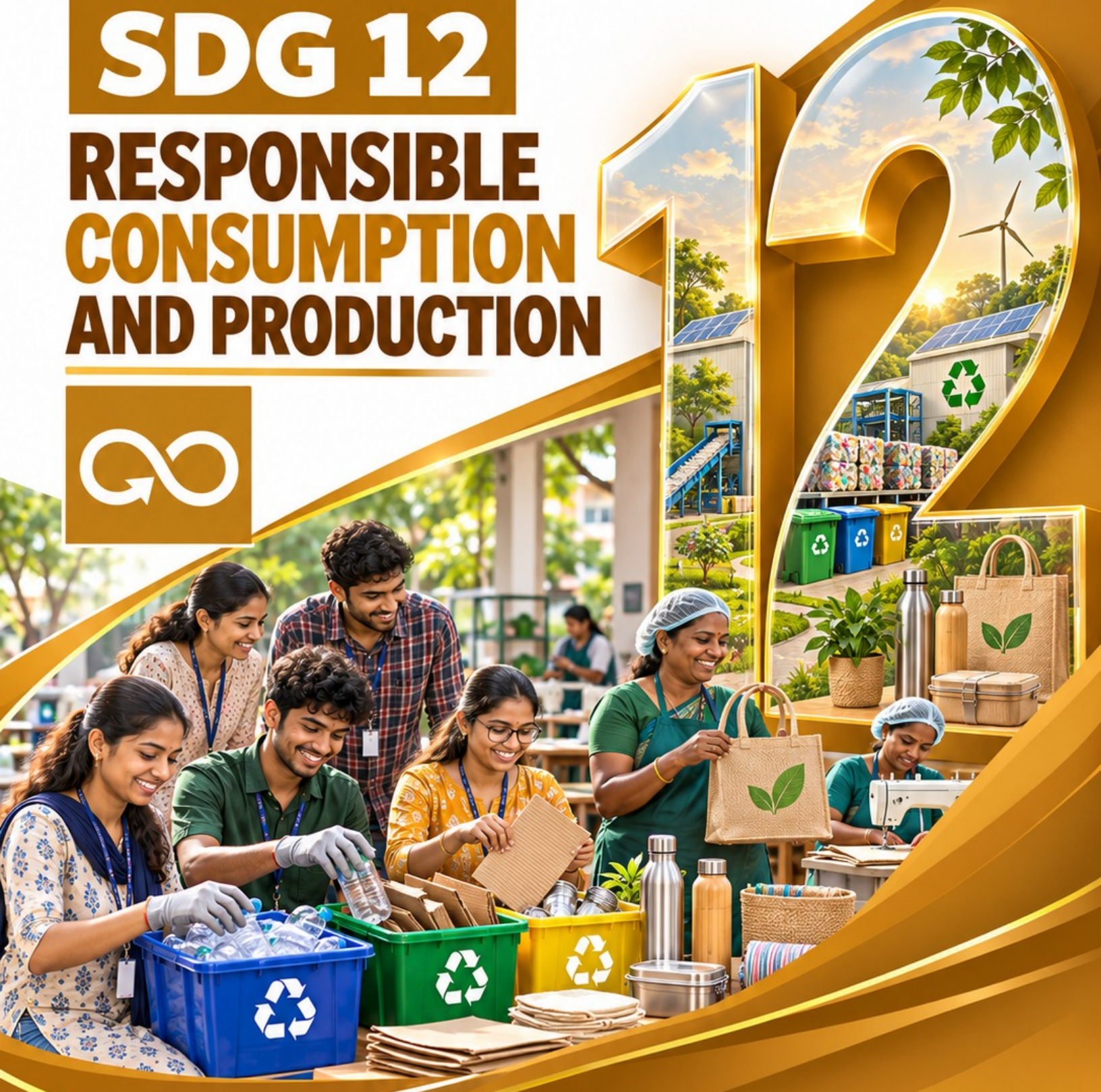
★ with Graded Autonomy Status ★

(An ISO 21001 : 2018 Certified Institution)

ACCREDITED WITH GRADE A+ NAAC

2025-26

SDG 12
RESPONSIBLE CONSUMPTION AND PRODUCTION



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SDG 12

RESPONSIBLE CONSUMPTION AND PRODUCTION



Dr. E. Sheeba Percis,
Professor and Joint Registrar
Team Lead-International Rankings

Dr. C. B. Palanivelu
Registrar

UN SDG 12: RESPONSIBLE CONSUMPTION AND PRODUCTION — COMPLIANCE PORTFOLIO

Dr. M.G.R. Educational and Research Institute (Deemed to be University) is deeply committed to fostering a sustainable future by embedding the principles of United Nations Sustainable Development Goal 12 (SDG 12) into its core operational, academic, and research frameworks. Recognizing that higher education institutions bear a distinct socio-environmental responsibility, the University has systematically transitioned its campuses into thriving, circular-economy ecosystems. By combining rigorous, multi-disciplinary research with aggressive, zero-waste infrastructure policies, the institution actively models the sustainable consumption and production patterns it champions within the classroom.

The University's strategic roadmap targets a **Net-Zero Carbon Campus milestone by 2045**, a goal operationalized through progressive policies that eliminate single-use plastics, maximize clean energy generation, and enforce closed-loop circular systems for water and solid waste. Over the 2022–2026 reporting cycles, this structural dedication has manifested as an exponential **~279% cumulative growth in SDG 12-aligned research publications**, transforming institutional data into a powerful baseline for global benchmarking.

Through its apex research hubs, including the Dr. APJ Abdul Kalam Centre for Innovation and Entrepreneurship, the University bridges the gap between campus operations and community impact. By developing and deploying real-world solutions—such as smart agricultural innovations for local farmers and strict e-waste and hazardous effluent management systems verified by the Tamil Nadu Pollution Control Board—the University ensures its footprint extends far beyond academia. This comprehensive portfolio outlines Dr. M.G.R. Educational and Research Institute's empirical data, operational milestones, and strategic initiatives, providing concrete evidence of our accelerating momentum toward global sustainability leadership.

Research Metrics:

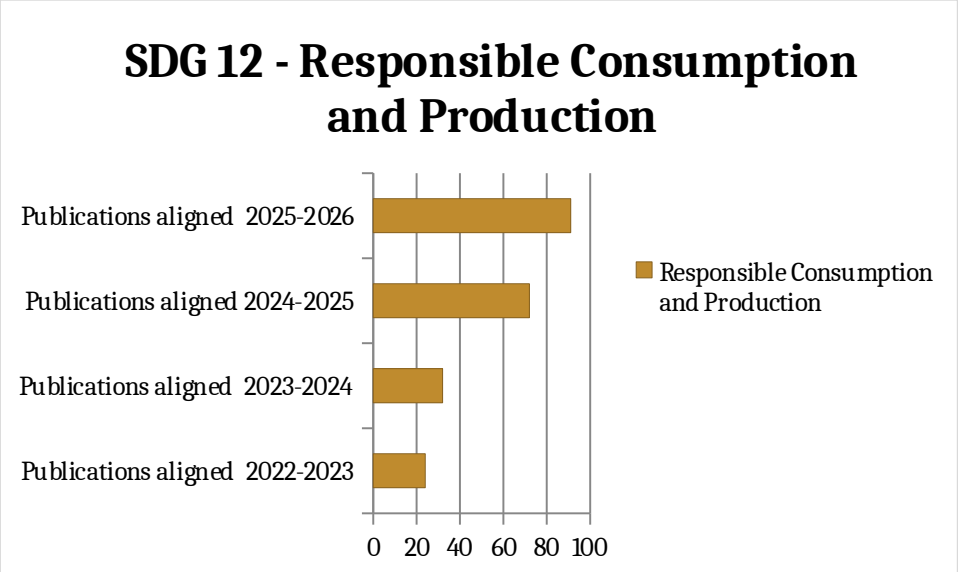
The provided chart tracks publication metrics aligned with **UN Sustainable Development Goal 12 (SDG 12): Responsible Consumption and Production** over a consecutive four-year period from 2022 to 2026. The data demonstrates a **strong, exponential upward trajectory** in research output or institutional alignment over time.

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Total Scale of Acceleration: From the baseline period (2022–2023) to the final reporting period (2025–2026), publications aligned with SDG 12 increased from approximately 24 to 91 units. This represents a staggering **~279% cumulative growth rate** across the four years.

The Inflection Point: The most critical growth phase occurred between the 2023–2024 and 2024–2025 cycles, where output more than doubled (from 32 to 72).



Research Metrics

Net-Zero Energy & Low-Carbon Mobility

To ensure consumption patterns do not contribute heavily to municipal grids, the university targets a **Net-Zero Carbon Campus milestone by 2045**: **Dr. M.G.R. Educational and Research Institute** is institutionalizing a holistic approach to sustainable development across social, economic, and environmental verticals. In strict alignment with the **United Nations Sustainable Development Goals (SDGs)**, our current initiatives prioritize upgrading public healthcare, mitigating air pollution, executing smart energy and water conservation, and driving a strategic roadmap to achieve a **Net-Zero Carbon Campus by 2045**.

Vision

To set the global institutional standard for environmental excellence, where carbon neutrality drives innovation, education, and sustainable community transformation

Mission

Our mission is to aggressively accelerate the transition to a carbon-zero future. MGR REACH commits to neutralizing our entire carbon footprint through rigorous energy efficiency, sustainable procurement, waste diversion, and green mobility. By holding ourselves accountable to verified global benchmarks, we turn climate policy into measurable daily practice, creating a sustainable legacy for our campus and the planet



Optimization of Wastewater Management

The institution has demonstrated an aggressive upward trajectory in its water loops. The volume of water recycled or reused on campus grew from **18.66% in 2021-22 to a peak of 28.2% in 2025-26**.

- This 9.54% overall increase confirms that the university has progressively optimized its infrastructure (such as treating hospital and institutional wastewater for non-potable uses like landscaping and plumbing flushes).

- For the current 2025-26 period, the baseline annual institutional water consumption stands at **37,466.50 m^3/l**, acting as the core yardstick against which this 28.2% recycling efficiency is verified.

Acceleration of the Circular Bio-Economy (SDG 12)

The data shows a massive escalation in diversion operations, with food waste diverted from landfill rising from **65 tons in 2021-22 to 117 tons in 2025-26** (an 80% surge).

- Rather than a sign of increased systemic waste generation, this steady annual curve demonstrates that the university has significantly ramped up its institutional collection, separation, and active on-site biological treatment protocols (such as food-to-manure processing plants or biomass energy conversion).

	2025-26	2024-25	2023-24	2022-23	2021-22
Total Institutional Water Consumption (Annual): [Cu meters/Litre]	37466.50 m^3/l	m^3/l	m^3/l	m^3/l	m^3/l
Volume of Water Recycled/Reused on Campus: [% or litres]	28.2%	25.15%	19.12%	18.66%	18.66%
Annual Campus Food Waste Diverted from Landfill: [% or tonnes]	117 tons	91 tons	71.5 tons	65 tons	65 tons
Clean-Water Community Programs	15	12	12	10	10

1. Sustainable Investment and Carbon Divestment Mandate

The University's Board of Management enforces a clear **Carbon Divestment Strategy** integrated into its long-term financial management policies. This mandate directs the institution's treasury and financial endowment managers to systemically phase out investments or capital holdings linked to high-carbon industries, fossil-fuel extraction, and non-renewable energy infrastructure.

2. Green Procurement and Sustainable Supply-Chain Policy

To minimize upstream scope-3 supply chain emissions, the University operates under a mandatory **Green Procurement Policy** for all departmental acquisitions, IT infrastructure, and campus construction projects:

3. Climate Literacy, Research Acceleration, and Community Outreaches

MGRERI leverages its academic capital to drive external climate solutions, which has directly fueled our **~279% cumulative growth in SDG-aligned research output** over the recent reporting cycles:

Academic Integration: Climate science, circular economics, and sustainable engineering principles are systematically integrated into mandatory foundation modules across all engineering, humanities, and medical streams.

Agricultural Tech Outreach: Through the Dr. APJ Abdul Kalam Centre for Innovation and Entrepreneurship, the University actively deploys agricultural R&D—including drone-based precision farming and soil health monitoring—to help local rural farming communities adapt to changing, unpredictable weather patterns.

Through these combined financial, procurement, and asset-diversification frameworks, Dr. M.G.R. Educational and Research Institute ensures that every rupee spent or invested actively drives down the global carbon curve, embodying the core essence of responsible production and consumption.

EVIDENCE LINKS
https://drmgrdu.ac.in/about/ranking/sustainable-development-goals/
https://drmgrdu.ac.in/about/ranking/sustainable-development-goals/carbon-zero
https://drmgrdu.ac.in/about/ranking/sustainable-development-goals/sustainability-impact
https://drmgrdu.ac.in/uploads/Policies/Divesting_Policy.pdf
https://drmgrdu.ac.in/uploads/Policies/Policy_on_Energy_Efficient_Building_Renovations.pdf
https://drmgrdu.ac.in/uploads/Policies/Water_Conservation_Policy.pdf
https://drmgrdu.ac.in/uploads/Policies/Sustainable_Investment_policy.pdf
https://drmgrdu.ac.in/uploads/Policies/Sustainable_Procurement_Policy.pdf
https://drmgrdu.ac.in/wp-content/uploads/2026/09/Climate-Action-Policy-1.pdf
https://drmgrdu.ac.in/uploads/QS/Social_Activities/Environment%20Impact/7%20Green%20audit%20certificate.pdf
https://www.instagram.com/p/C3DfALdydnk/
https://www.facebook.com/MGRUniversityDeemed/posts/honorable-president-acs-arunkumar-received-the-certificate-of-appreciation-from-/842424994580252/

EV Charging Point:

Not only that, the development of a widespread EV charging network is key to enabling a shift to a more sustainable transportation system. EV charging stations support SDG 9, 11 and 12 by building resilient and sustainable infrastructure and promoting sustainable industrialization. There is a Relux 30 kW EV charging station located in the main campus. The facility was introduced to concurrently charge the university's expanding fleet of electric shuttle options and remain fully accessible to public highway commuters along Poonamallee High Road.