



SRI RAMAKRISHNA

COLLEGE OF ARTS & SCIENCE (Autonomous)

(Ranked 76th in NIRF 2025 | Accredited with 'A+' Grade by NAAC | AICTE & UGC Approved
ISO 9001:2015 Certified | Affiliated to Bharathiar University)
Nava India, Coimbatore - 641 006

Proceedings of International Conference on Innovation for a Sustainable Future - Embracing the Green Path in Business

JANUARY 23, 2026

SDG's : 8,9,12,13



Organized By

**PG & Research Department of Commerce
B.Com Information Technology**



**Proceedings of the One Day
INTERNATIONAL CONFERENCE ON
“Innovation for A Sustainable Future - Embracing the
Green Path in the Business”**

23rd January, 2026



**Organized by
PG & Research Department of Commerce
Department of B.Com - Information Technology**

All Rights Reserved.

Original English Language Edition © Copyright by **CiiT Publications**.

This book may not be duplicated in any way without the express written consent of the publisher, except in the form of brief excerpts or quotations for the purpose of review. The information contained herein is for the personal use of the reader and may not be incorporated in any commercial programs, other books, database, or any kind of software without written consent of the publisher. Making copies of this book or any portion thereof for any purpose other than your own is a violation of copyright laws.

This edition has been published by **CiiT Publications, Coimbatore**.

Limits of Liability/Disclaimer of Warranty: The author and publisher have used their effort in preparing this ICISFEB – 2026 book and author makes no representation or warranties with respect to accuracy or completeness of the contents of this book, and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose. There are no warranties which extend beyond the descriptions contained in this paragraph. No warranty may be created or extended by sales representatives or written sales materials. Neither CiiT nor author shall be liable for any loss of profit or any other commercial damage, including but limited to special, incidental, consequential, or other damages.

Trademarks: All brand names and product names used in this book are trademarks, registered trademarks, or trade names of their respective holders.



ISBN- 978-93-6126-495-5

CiiT Publications,

#156, 3rd Floor, Kalidas Road, Ramnagar,

Coimbatore – 641009, Tamil Nadu, India.

Phone: 0422 – 4377821, Mobile: 9965618001

www.ciiitresearch.org

**Proceedings of the One Day
INTERNATIONAL CONFERENCE ON
“Innovation for A Sustainable Future - Embracing the
Green Path in Business”**

23rd January, 2026

Organized by

**PG & Research Department of Commerce,
Department of B.Com - Information Technology,
Sri Ramakrishna College of Arts & Science,
Coimbatore, Tamil Nadu, India.**

Editors

Dr. G. Agila

Associate Professor & Head,
PG & Research Department of Commerce,
Sri Ramakrishna College of Arts & Science,
Coimbatore.

Dr. D. Sasikala Devi

Associate Professor & Head,
B.Com Information Technology,
Sri Ramakrishna College of Arts & Science,
Coimbatore.

Published by,

CiiT Publications,

#156, 3rd Floor, Kalidas Road, Ramnagar,
Coimbatore – 641009, Tamil Nadu, India.

Phone: 0422 – 4377821, Mobile: 9965618001

www.ciitresearch.org

Table of Contents

S.NO	TITLE	PAGE NO
1	GREEN ENTREPRENEURSHIP AND JOB CREATION Ezra Wong Ming Li, Christian Stephan, Cahya Aishah	1
2	GREEN TECHNOLOGIES AND SUSTAINABLE INDUSTRIAL GROWTH Mercy Chomba, P. Kavitha Arunasalam	5
3	CLIMATE-SMART BUSINESS STRATEGIES AND INNOVATION Dr. Mohanampal. D	9
4	RESPONSIBLE CONSUMPTION AND PRODUCTION IN THE CONTEXT OF CLIMATE CHANGE AND RESOURCE SCARCITY Dr. M. Nirmala	14
5	SUSTAINABLE DEVELOPMENT GOALS: A STUDY WITH REFERENCE TO DECENT WORK AND ECONOMIC GROWTH Dr. R. Ramya	19
6	EMPOWERING MSMEs FOR INCLUSIVE AND GREEN GROWTH Dr. S. Duraieswari, Sujatha. R, Tejeswi Ramachandran	23
7	THE CONCEPT OF ESG & GREEN FINANCE: DRIVING SUSTAINABLE BUSINESS GROWTH Sruthika. R, Dr. S. Amudha	27
8	SUSTAINABLE DEVELOPMENT AND DIGITAL TRANSFORMATION IN RETAIL MARKETING: EMERGING PRACTICES AND STRATEGIC IMPLICATIONS Dr. S. Kalpana	32
9	SUBSTANTIALLY REDUCING WASTE GENERATION THROUGH PREVENTION, REDUCTION, RECYCLING AND REUSE Dr. P. Gomathi Devi	37
10	INNOVATING FOR TOMORROW: GREEN BUSINESS SOLUTIONS FOR CLIMATE ACTION Dr. M. Shanmuga Priya	41
11	LEGAL AND REGULATORY ASPECTS OF ENVIRONMENTAL ACCOUNTING AND SUSTAINABLE REPORTING IN INDIA (SDG 12 – RESPONSIBLE CONSUMPTION AND PRODUCTION) Nachal. C, Dr. P. K. Uma Maheswari	45
12	CIRCULAR ECONOMY AND WASTE REDUCTION IN COMMERCE Nivedhaa. K, Dr. K. Akila	51

SUBSTANTIALLY REDUCING WASTE GENERATION THROUGH PREVENTION, REDUCTION, RECYCLING AND REUSE

Dr. P. Gomathi Devi

Assistant Professor,
UG Department of Commerce (CA),
Nallamuthu Gounder Mahalingam College,
Pollachi.

1. INTRODUCTION

Rapid industrialization, urbanization, and changing consumption patterns have led to a dramatic increase in waste generation across the globe. From household garbage and food waste to industrial by-products, plastic pollution and electronic waste, the volume of waste produced today poses serious threats to environmental sustainability, public health, and economic stability. Recognizing this challenge, the United Nations included waste reduction as a core component of Sustainable Development Goal 12 (SDG 12). One of the key targets of this goal is to **substantially reduce waste generation through prevention, reduction, recycling, and reuse**. This target emphasizes shifting away from the traditional “take–make–dispose” model toward a **circular economy**, where resources are used efficiently, waste is minimized, and materials remain in use for as long as possible. Achieving this goal requires collective efforts from governments, industries, communities, and individuals.

2. IMPACTS OF EXCESSIVE WASTE GENERATION – BRIEF EXPLANATION

Excessive waste generation creates serious environmental, social, and economic problems. The major impacts are briefly explained below:

1.Environmental Pollution

Large amounts of waste contaminate air, water, and soil. Landfills release toxic chemicals, while plastic waste pollutes rivers and oceans, harming ecosystems.

2.Climate Change

Decomposing organic waste in landfills emits methane, a powerful greenhouse gas that contributes significantly to global warming and climate change.

3.Public Health Hazards

Improper waste disposal attracts pests and spreads diseases. Toxic and hazardous wastes can cause respiratory problems, skin diseases, and other health issues.

4.Depletion of Natural Resources

Excessive waste reflects overconsumption of raw materials like water, minerals, and forests, leading to resource scarcity and ecological imbalance.

5.Loss of Biodiversity

Wildlife is affected when animals ingest plastic or get trapped in waste, leading to injury or death and disrupting natural habitats.

6.Economic Burden

Managing large volumes of waste increases costs for governments and municipalities, diverting funds from essential development activities.

7.Urban and Aesthetic Problems

Uncontrolled waste leads to foul odors, blocked drainage systems, and unsanitary living conditions, especially in urban areas.

Strategies for Waste Prevention – Brief Explanation

Waste prevention focuses on avoiding waste before it is created by promoting sustainable production and consumption practices. The key strategies are:

1.Reduce Over consumption

Buying only what is needed and avoiding impulse purchases helps prevent unnecessary waste generation.

2.Eco-friendly Product Design

Designing products that are durable, repairable, and long-lasting reduces frequent disposal and replacement.

3.Minimizing Packaging

Using minimal, biodegradable, or recyclable packaging helps prevent excess waste at the source.

4.Promoting Reusable Alternatives

Encouraging the use of reusable bags, bottles, containers, and cutlery reduces dependence on single-use products.

5.Digitalization

Replacing paper-based processes with digital alternatives reduces paper waste in offices and institutions.

6.Food Waste Prevention

Proper meal planning, storage, and consumption habits help prevent wastage of food at households and commercial levels.

7.Awareness and Education

Educating consumers and producers about sustainable lifestyles and responsible consumption encourages long-term waste prevention.

3. REDUCTION: MINIMIZING WASTE AT THE SOURCE

By minimizing waste at the source, reduction helps conserve natural resources, lower disposal costs, and reduce environmental pollution, making it an essential component of sustainable waste management under SDG 12.

Examples of Waste Reduction

- Buying products in bulk
- Using refillable containers
- Reducing food portion sizes to avoid leftovers
- Efficient inventory management in businesses
- Adopting lean manufacturing techniques

Governments can promote waste reduction through regulations, awareness campaigns, and incentives for eco-friendly practices. Educational institutions also play a crucial role by encouraging students to adopt minimal-waste lifestyles and sustainable habits.

Recycling involves **processing waste materials into new products**, thereby reducing the need for virgin raw materials. Commonly recycled materials include paper, plastic, glass, metal, and electronic components.

Importance of Recycling

- Conserves natural resources
- Saves energy
- Reduces landfill use
- Creates employment opportunities
- Lowers pollution levels

However, recycling is effective only when supported by proper **segregation at source**, efficient collection systems, and consumer participation. Without segregation, recyclable materials often end up contaminated and unusable.

Reuse: Extending the Life of Products

Reuse refers to using products or materials **again for the same or a different purpose** without significant processing. It is a powerful strategy that directly reduces waste and resource consumption.

Examples of Reuse

- Reusing glass bottles and containers
- Donating clothes, books, and furniture
- Using cloth bags instead of plastic bags
- Repairing appliances instead of discarding them
- Up cycling waste materials into useful items

Reuse supports sustainable consumption by changing consumer attitudes from disposability to durability. Community-level initiatives such as repair cafés, second-hand markets, and sharing platforms further promote reuse and reduce waste generation.

Acknowledgement

This article has been published through using seed money research fund granted by the management of Nallamuthu Gounder Mahalingam College, Pollachi.

4. CONCLUSION

Waste reduction is not merely an environmental responsibility but a social and economic necessity. By adopting sustainable practices, promoting circular economy principles, and encouraging responsible behavior, societies can reduce environmental impacts, conserve resources, and ensure a healthier planet for future generations. Sustainable waste management begins with individual choices and extends to institutional and global action. When prevention is prioritized, reduction is practiced, recycling is strengthened, and reuse becomes a habit, the vision of sustainable development becomes achievable and meaningful.

REFERENCES

- [1]. Ghisellini, P., Cialani, C., & Ulgiati, S. (2016). A review on circular economy: The expected transition to a balanced interplay of environmental and economic systems. *Journal of Cleaner Production*, 114, 11–32
- [2]. Muhammad, G. M., & Truzsi, A. (2025). *Advancing sustainable waste management through national recycling rate under SDG 12.5.1. International Journal of Engineering and Management Sciences*, 10(3), 61–72.
- [3]. Raj, M., Ghosh, A., Ilame, T., & Others. (2025). *Plastic waste management strategies: Planning through sustainable lens and way forward towards circular economy. Discover Sustainability*, 6(361).
- [4]. Shukla, S., Khan, R., & Roccaro, P. (2025). *Plastic waste recycling is insufficient to mitigate plastic pollution: The need for a paradigm shift. Current Pollution Reports*, 11, 62