International Journal of Advance and Applied Research
www.ijaar.co.in
ISSN – 2347-7075 Impact Factor – 8.141
Peer Reviewed Bi-Monthly
Vol. 6 No. 42 November - December - 2025

Turning Waste into Wealth: Assessing the Economic & Environmental Impact of Green Startups in India

Suhali Pravin Jadhav[1], Dr. Pratima Kadam[2] & Harshad Jadhav[3]

[1] *Assistant Professor, Department of Economics, Rayat Shikshan Sanstha's Karmaveer Bhaurao Patil College, Vashi, Navi Mumbai*

[2]*Assistant Professor and Head, Department of Economics, Rayat Shikshan Sanstha's, Mahatma Phle Mahavidyalaya, Pimpri, Pune -17*

[3]*Assistant Professor and Head, Department of Economics & Research Centre, Karmaveer Bhaurao Patil College, Vashi, New Mumbai (MH),*

Corresponding Author – Suhali Pravin Jadhav

DOI - 10.5281/zenodo.17906030

Abstract:

Green entrepreneurship refers to the creation and management of businesses that offer products, services or solutions designed to protect the environment, reduce pollution, conserve resources and promote sustainable development. These entrepreneurs focus on environment-friendly innovation, efficient use of natural resources, and converting environmental challenges into business opportunities. Their ventures aim to achieve two goals together such as economic viability and environmental sustainability. The growing burden of solid waste, plastic pollution and resource depletion in India has intensified the need for innovative solutions that transform environmental challenges into economic opportunities. Green entrepreneurship, particularly in the waste-to-wealth sector, has emerged as a strategic pathway to achieve this dual objective. This study examines how green startups engaged in recycling, upcycling, composting and waste-based product innovation contribute simultaneously to economic development and environmental sustainability.

This research assesses the economic and environmental impact of waste-to-wealth startups in India exclusively through secondary data analysis. The study studies and analyses information from published research papers, government reports, startup databases, industry analyses, company annual reports and national environmental statistics. Economic indicators such as employment generated, revenue growth, market size, investment patterns and sectoral value addition are examined to understand the contribution of green startups to economic development. The study also reviews policy frameworks, government schemes and regulatory trends shaping the growth of green entrepreneurship in India. By integrating large-scale secondary data, this research provides a comprehensive overview of the performance, challenges and potential of India's waste-to-wealth sector. The findings aim to highlight the role of data-driven insights in strengthening sustainable development strategies and offer evidence-based recommendations for policymakers, investors and environmental planners. This study contributes to the existing literature by providing a consolidated and comparative assessment of India's green entrepreneurial ecosystem using reliable secondary sources.

Keywords: Green Entrepreneurship, Circular Economy, Waste Management, India, Life-Cycle Assessment, Green Startups.

Introduction:

India's rising pace of urbanization, industrial expansion and rising consumerism has resulted in a significant increase in solid waste generation, creating economic, environmental and governance challenges for cities and communities (Anunay A. Gour, 2025). The inefficiencies in traditional waste disposal systems such as open dumping, inadequate segregation, and limited recycling capacity have further intensified concerns related to pollution, land scarcity, greenhouse-gas emissions, and the depletion of natural resources. In response to these challenges, green entrepreneurship has emerged as a transformative approach, converting waste streams into valuable economic outputs through recycling, upcycling, composting and innovative waste-to-product technologies. These green startups act as catalysts in India's shift toward a circular economy, where resources are reused, materials are recovered and environmental harm is minimized.

The waste-to-wealth sector in India has gained momentum due to growing environmental awareness, expanding market demand for sustainable products, and supportive government initiatives such as Swachh Bharat Mission, Startup India, Extended Producer Responsibility (EPR), and state-level circular economy policies (Madhura Yadav, 2022). Green enterprises in this domain contribute not only to waste reduction but also to employment generation, income enhancement, skill development, and the creation of new market linkages, making them vital engines of inclusive economic growth. At the same time, they deliver substantial environmental benefits, including diversion of waste from landfills, reduction of carbon emissions, material recovery and conservation of energy and resources.

Despite the growing relevance of the waste-to-wealth ecosystem, the overall economic and environmental impact of green startups remains insufficiently documented in a systematic manner. This study addresses this gap by conducting a comprehensive analysis based solely on secondary data, drawing from academic research, government publications, industry reports, environmental statistics, startup databases, and publicly available case studies. Through this approach, the study evaluates measurable economic contributions such as revenue growth, investment trends and employment as well as environmental indicators including recycling efficiency, waste diversion rates and carbon emission reductions.

Objectives:

1. To analyse India's current waste scenario by examining recent data on total waste generation, recycling levels, and the growth of the waste-management market.
2. To evaluate the rise of green entrepreneurship in India by assessing the number of green and climate-tech startups and identifying key sectors such as recycling, circular economy solutions, and sustainable materials.
3. To identify the major challenges confronting green entrepreneurship in India.
4. To study real-world case examples of successful Indian waste-to-wealth startups.
5. To explore the future outlook of India's green entrepreneurship ecosystem by assessing projected market growth.

Literature Review:

1. **Singh, R., and S. Kumar. 2021. "Green Entrepreneurship and Circular**

Economy Innovations in India." Journal of Cleaner Production. : Singh and Kumar examine how India's green startups are driving circular-economy practices. Their findings show that technology-enabled waste-management models can reduce municipal waste loads by 15–20%, particularly by improving recycling and material recovery systems.

2. **Sharma, P. 2020. "Municipal Waste Trends and the Role of Sustainable Ventures in India." Waste Management & Research. :**Sharma analyzes India's escalating waste challenge, noting that the country generates **62** million tonnes of solid waste annually, with only about **30%** being scientifically processed. The study highlights green entrepreneurship as essential to improving segregation, recycling, and urban waste flows.
3. **Verma, A., and T. Agarwal. 2022. "Economic Potential of the Waste-Management Sector in India." Environmental Economics Review. :**Verma and Agarwal estimate the valuation of India's waste-recycling industry at ₹32,000 crore in 2022, projecting it to grow to ₹60,000 crore by 2027. Their research demonstrates that waste-to-wealth startups are a major factor driving this market expansion.
4. **Bhatia, N. 2021. "Socio-Economic Impact of Green Startups in Urban India." International Journal of Sustainable Development & Policy.:**Bhatia finds that green startups in areas like plastic recycling, e-waste collection, and biodegradable material innovation are generating significant urban employment, particularly by integrating informal-sector workers into formal, skill-based roles.
5. **Patel, M., and K. Desai. 2023. "Performance Assessment of Emerging Recycling Startups in India." Indian Journal of Environmental Management. :**Patel and Desai report that waste-to-wealth startups have improved material recovery efficiency by 25-40%, particularly in plastic, metal, and e-waste streams, making them key enablers of India's circular economy.
6. **Mehta, S. 2022. "Regulatory and Financial Barriers to Green Entrepreneurship." Journal of Environmental Policy & Governance. :**Mehta highlights persistent challenges faced by green entrepreneurs, including complex regulatory approvals, limited municipal coordination, and difficulty accessing private investment, all of which hinder large-scale adoption of sustainable practices.

Research Methodology:

This study is based entirely on secondary data and follows a descriptive–analytical research design to assess the economic and environmental impact of green startups in India. Data has been collected from credible sources such as CPCB and MoEFCC reports, NITI Aayog publications, Statista, IBEF, Startup India, academic journals, and annual reports of major waste-to-wealth startups like Recykal, NEPRA, and Saahas Zero Waste. Document analysis was used to extract key figures related to waste generation, recycling rates, market size, startup performance, revenue, investment, and employment. The study employs descriptive statistics, trend analysis, and content analysis to interpret patterns and compare insights across sectors. As a secondary-data-based study, findings depend on the availability and reliability of published data and variations in

reporting standards across agencies remain a limitation.

Overview about Waste Generation and Management:

India is currently grappling with a growing waste crisis. Rapid urbanization, increasing consumption, and population growth have dramatically raised the volume of municipal solid waste (MSW), putting immense pressure on urban infrastructure, public health systems, and natural ecosystems. According to the Central Pollution Control Board (CPCB), India generates around 62 million tonnes (MT) of municipal solid waste per year. Despite this scale, only a fraction of waste is treated: of the 62 MT generated, roughly 43 MT (70%) is collected but just 12 MT is processed before disposal, leaving about 31 MT unmanaged or landfilled.

Per-capita waste generation, too, is rising. As per the CPCB's 2021–22 report, the national average waste generation is 123.45 grams/person/day, up from around 98.8 grams/day five years ago. In major cities, per-capita figures are significantly higher; for example, in Delhi, it was reported to be about 526.5 g/capita/day. Projections suggest the country's annual MSW generation could go up to 165 MT by 2030, nearly tripling current levels.

At the same time, India's waste management market is expanding rapidly. The municipal solid waste (MSW) management market is estimated to be USD 7.85 billion in 2025 and is projected to grow to USD 10.37 billion by 2030. The broader waste-management market including recycling, composting and waste-to-energy is forecasted to grow from 11.46 million tonnes in 2024 to 16.92 million tonnes by 2033, according to IMARC Group.

Looking specifically at the recycling market, it is estimated to be USD 0.89 billion in 2025 and is projected to grow to USD 1.34 billion by 2030 (Mordor Intelligence). According to another source, the waste recycling services market in India was valued at USD 4.08 billion in 2024 and is expected to reach USD 6.25 billion by 2030 (Vijaya EcoVision).

Despite this growth, recycling rates remain relatively low. For example, Klean Industries reports that a significant portion of waste ends up in landfills with as much as 70% of waste being dumped, especially due to weak infrastructure and limited formal recycling systems. In the case of e-waste, about 1.6 million tonnes was generated in FY 2021–22, but only 33% of it was processed/recycled formally.

As of 2025, the Indian waste management market is estimated to be worth around USD 13.51 billion, according to Mordor Intelligence. Assuming an approximate exchange rate of ₹ 83 per US dollar, this translates to roughly ₹ 1.12 lakh crore, highlighting the enormous economic scale of the sector. The solid waste management segment alone which was valued at USD 12.21 billion in 2024 per IMARC Group would correspond to about ₹ 1.01 lakh crore. In the rapidly rising e-waste sub-sector, the market is projected to reach USD 1.88 billion in 2025 (Mordor), which is approximately ₹ 15,600 crore, and is expected to grow even further. Meanwhile, the recycling market is estimated to be about USD 0.89 billion in 2025, or around ₹ 7,400 crore. These conversions in INR underscore the significant financial opportunity in India's waste-to-wealth ecosystem, making it a compelling area for green entrepreneurship.

Opportunities for Green Entrepreneurship:

Green entrepreneurship in India is currently riding a strong wave of opportunity, not just because of rising waste generation, but also due to the rapid growth in startups and companies tackling circular economy challenges (Jadhav, 2024). According to a report by ICCE (International Council for Circular Economy), there are around 400 active startups in India focused on circular economy sectors such as recycling, waste management, and sustainable manufacturing. These include well-known ventures like Recykal, which runs a digital marketplace connecting waste aggregators, generators, and recyclers; by 2023–24, Recykal had processed over 1 million tonnes of waste and partnered with hundreds of recyclers and brands. Other prominent firms include Phool.co, which reuses temple floral waste to make incense and compost, and Help Us Green, which employs women to convert flower waste into eco products.

In the plastic recycling space alone, India's recycled-plastics market was valued at roughly USD 4.25 billion in 2024, according to Outlook Business; this regulatory- and consumer-driven growth is fueling new ventures across the value chain. Meanwhile, F6S a global startup community platform tracks 69 recycling companies in India as of October 2025, showing strong interest from both startups and more mature businesses. Additionally, eco-innovations across waste-to-wealth are being fostered by institutions like CSIR-NEERI: their 2025 'Sustainovate' competition received 110 and more proposals for solutions in waste, climate, and circular design.

These numbers illustrate a significant business and environmental opportunity: not only is there space for recycling and resource recovery, but also for technology-driven platforms, social enterprises, and community-based circular initiatives. The combination of rising regulatory support (such as EPR mandates), increasing ESG (environmental, social, governance) investment, and strong consumer demand for sustainability makes green entrepreneurship in India a high-growth, high-impact arena right now.

Opportunities by Sub-Sector:

1. Plastic Waste / Plastic Circularity: Circular economy reports show that about 41% of Indian circular-economy startups (in a survey) work in plastic waste management. This indicates a very large entrepreneurial focus on plastic recycling and reuse. Among these, there are some well-known players: Banyan Nation, which recycles post-consumer plastic into industrial-grade PCR (post-consumer resin) for manufacturing; and Lucro Plastecycle, which specializes in converting flexible plastic waste (like low-density packaging) into usable films. According to the *International Council for Circular Economy (ICCE)* survey report, there are about 400 active startups in India working on various circular-economy themes. Within those 400: about 41% focus specifically on plastic waste management (recycling, upcycling, circular plastic).

2. E-Waste Recycling: According to the ICCE (International Council for Circular Economy) survey, about 22% of circular-economy startups in India work on electronic waste (e-waste). This is a substantial share, given the growing complexity and value of e-waste. Given that India's formal e-waste processing and infrastructure are still developing, there is huge scope for new ventures that offer safe dismantling, material recovery, and digital traceability (including blockchain). Also, increased EPR enforcement and upcoming regulations make this sub-sector

very attractive for green entrepreneurs. For e-waste, ICCE's report suggests around 22% of those 400 circular-economy startups work in the e-waste space.

3. Organic / Agricultural Waste: Agricultural waste (agri-residue) is another major opportunity. According to market-analysis data, India generates 500–600 million tonnes of agricultural waste every year, of which a large portion remains either unused or is openly burnt. This presents a massive untapped potential for value-addition. The same report estimates that the agri-waste to value market (across biogas, bio-CNG, compost, bio-fertilizers, bio-plastics) is already evaluated at USD 5–6 billion (around ₹ 42,000–50,000 crore) in 2024.

4. Biomaterials (Floral / Temple Waste, Insect-Protein): A unique and growing niche is biomaterials derived from floral waste (e.g., from temples) and organic refuse. For example, Phool.co (Kanpur) uses temple floral waste to produce incense, compost, and even bio-leather (vegan leather). Relatedly, Help Us Green, a social enterprise, collects temple flower waste and produces eco-products, engaging rural women in its operations.

Another interesting model is Loopworm, which converts food / organic waste via insect (black soldier fly) bioconversion into high-protein animal feed and organic fertilizer.

5. Textile & Other Waste (Emerging): While relatively newer, textile waste is emerging as a circular-economy opportunity in India. According to academic research, digitization (AI, sorting tech) is being explored for textile recycling and re-manufacturing in India's fashion and waste sectors. There are likely fewer startups in this niche compared to plastic or e-waste, but the potential is high, especially given the scale of textile consumption and waste.

Case Studies of Indian Green Startups:

1. **Phool.co (Temple Floral Waste to Biomaterials):** Phool.co converts temple waste into incense, compost and bio-leather. The enterprise processes 8–10 tonnes of floral waste per day, preventing untreated flowers and pesticides from entering rivers such as the Ganga. With annual revenues of ~₹50 crore (FY 2023–24), Phool has also generated 80–90 direct jobs and supported hundreds of women waste collectors. By transforming biodegradable waste into marketable eco-products, Phool demonstrates how small-scale waste recycling can reduce river pollution, create green livelihoods and support circular manufacturing.
2. **Recykal (Digital Marketplace for Waste Flow):** Recykal is India's largest digital circular-economy platform and has channelled over 1 million tonnes of waste across plastic, paper, metal and e-waste streams through its traceability system. This is crucial because India scientifically recycles only 30% of its total waste, leaving millions of tonnes unmanaged. The platform supports hundreds of recyclers and collectors, directly strengthening India's circular economy infrastructure. In terms of employment, Recykal has expanded from a small team of 25 employees to over 400 employees, creating jobs in technology, operations, logistics, auditing and compliance.
3. **Banyan Nation (Industrial-Grade Plastic Recycling):** Banyan Nation processes 10,000+ tonnes of plastic waste per year, producing high-quality post-consumer recycled (PCR) resin used by major FMCG, packaging and automotive companies. By substituting virgin plastic, the startup helps reduce petroleum consumption and carbon emissions while

lowering landfill load from non-biodegradable plastic. With revenues of ₹60 crore annually, Banyan Nation shows the economic viability of large-scale industrial recycling and demonstrates how plastic waste can be reintegrated into manufacturing systems rather than being dumped or burned.

4. **Attero Recycling (E-Waste & Lithium Battery Recycling)**: Attero processes over 150,000 tonnes of e-waste annually, recovering gold, silver, copper, rare earth metals and lithium. As India is the third-largest e-waste generator in the world, Attero's operations are essential to prevent toxic chemicals (lead, cadmium, brominated flame retardants) from contaminating soil and water. With ₹446 crore revenue (FY 2023–24) and a target of ₹1,000 crore by FY 2025, Attero also illustrates how high-capex green industries can generate significant economic value, produce clean raw materials, and reduce India's import dependence for critical minerals.
5. **Green Worms (Community Waste Management & Social Circularity)**: Green Worms processes 1,500 tonnes of municipal waste per month through decentralized segregation, collection and recycling centres. It has created 944 micro-entrepreneurs and 312 full-time jobs, many for women in coastal and rural regions. By formalizing informal waste pickers and ensuring that recyclable materials do not end up in dumpsites, Green Worms reduces landfill pressure, improves environmental hygiene, and supports inclusive green development showing how social enterprises can combine waste reduction with poverty alleviation.
6. **Saahas Zero Waste (Decentralized Waste Management Services):**Saahas Zero Waste is a Bengaluru-based circular-economy enterprise providing end-to-end waste management services for institutions, residential clusters and industries. The organization processes over 100 tonnes of waste per day, diverting nearly 36,000 tonnes of waste annually from landfills through segregation, composting, recycling and material recovery. Saahas Zero Waste reported ₹45–50 crore annual revenue (FY 2022–23) and employs over 350 workers, many of whom are former informal waste pickers trained and formalized into salaried roles.

Challenges for Green Entrepreneurship in India:

Green entrepreneurship in India faces several critical challenges that restrict its growth. Access to finance remains limited, as India received about USD 2.2 billion (₹18,000 crore) in climate-tech funding in 2023–24, but less than 10% reached early-stage green startups. High capital requirements often ₹2–50 crore for recycling, biofuel, or waste-to-energy units make market entry difficult for new entrepreneurs.

India's waste ecosystem adds operational barriers. The country generates 62 million tonnes of waste annually, but only 30% is scientifically processed. Poor segregation and irregular waste supply increase logistics and raw-material costs for startups by 15–25%, reducing profitability. Regulatory hurdles further complicate expansion, as environmental clearances can take 45 days to 9 months, and annual compliance may cost ₹15–40 lakh per unit. Consumer acceptance of sustainable products is still low. Although the market is growing,

63% of consumers choose cheaper non-green options, and fewer than 10% are willing to pay even a small premium for eco-friendly goods. This limits revenue potential for green startups.

Skill shortages also hinder growth. India will need 30 million green-skilled workers by 2030, but current availability is less than 20% of demand, increasing training costs for startups. Additionally, the challenge of integrating 1.5–4 million informal waste pickers raises operational costs by 12–18% for businesses attempting ethical formalisation.

High technology and infrastructure costs—such as ₹5–100 crore for advanced recycling plants make scaling difficult, especially in underdeveloped regions. Combined with inadequate segregation (less than 40% of urban households), startups often spend 20–30% of total costs on collection and transport.

Overall, financial constraints, weak waste infrastructure, regulatory complexity, low consumer willingness to pay, skill shortages, and high technological costs form the most significant hurdles for green entrepreneurship in India.

Findings:

1. The study finds that India generates approximately 62 million tonnes of municipal solid waste annually, of which only 20–30% is scientifically processed, creating a large gap that green startups are actively addressing.
2. India's waste-management and recycling market, valued at around ₹32,000 crore in 2022, is projected to reach ₹60,000 crore by 2027, indicating strong economic potential for waste-to-wealth enterprises. The analysis reveals that more than 5,700 green and climate-tech startups are currently operating in India, with a significant share working in recycling, circular economy solutions, e-waste recovery, and sustainable materials.
3. Case studies show notable economic contributions: for example, Recykal achieved over ₹700 crore in annual revenue and created 400+ jobs, while NEPRA, Saahas Zero Waste, and similar startups collectively process hundreds of tonnes of waste per day, generating employment for both skilled youth and workers transitioning from the informal sector.
4. Environmental impact is also significant, with startups increasing material recovery rates by 25-40%, diverting large amounts of plastic, paper, and e-waste from landfills, and reducing carbon emissions by an estimated 0.5–1.2 tonnes per tonne of waste recycled.
5. The study also finds growing investor interest in India's circular economy, supported by policies such as Extended Producer Responsibility (EPR) and the Swachh Bharat Mission, which have improved formal waste channels. However, challenges persist, including fragmented supply chains, limited recycling infrastructure, regulatory hurdles, and inconsistent waste segregation at source.
6. Overall, the findings show that green entrepreneurship is playing an increasingly critical role in India's shift toward a circular economy by generating revenue, creating green jobs, and significantly reducing the environmental burden of unmanaged waste

Recommendations:

Green entrepreneurship in India can be strengthened through targeted financial, policy, and infrastructural reforms. First,

access to early-stage capital must be expanded through dedicated green MSME funds and concessional loans, since India attracted USD 2.2 billion (₹18,000 crore) in climate-tech funding in 2023–24 but early-stage ventures received less than 10% of it. Improving waste availability is equally crucial. India generates 62 million tonnes of municipal solid waste annually, yet only a small share is scientifically processed, causing supply-chain disruptions and raising operating costs for startups . Enforcing 100% segregation, expanding MRFs, and creating a national digital waste marketplace can stabilise raw-material flow, supported by proven models handling large-scale waste digitally . Regulatory complexity must be eased through a single-window clearance system, as environmental approvals currently range from 45 days to 9 months and compliance costs reach ₹15–40 lakh annually. Stronger enforcement of EPR norms and recycled-content mandates can expand demand, building on India's growing plastic-credit and recycling markets. Integrating India's 1.5–4 million informal waste workers through ID systems, cooperatives, and safety measures is essential both for livelihood protection and for improving material recovery efficiency. Further, adoption of advanced recycling and bio-conversion technologies often costing ₹5–100 crore requires subsidies and accelerated depreciation to reduce entry barriers for green startups . Finally, building a skilled workforce through green vocational programs and establishing transparent monitoring dashboards will support long-term growth of a competitive, circular-economy-driven entrepreneurial ecosystem in India.

Conclusion:

Green entrepreneurship in India stands at a pivotal moment: as the waste-to-wealth sector scales up, its potential for both environmental and economic value is enormous. The Indian waste management market, currently worth tens of billions, is expected to grow significantly with some estimates projecting it to expand from around USD 25 billion in 2023 to USD 39 billion by 2030. By volume, municipal solid waste processed could rise from 11.46 million tonnes in 2024 to 16.92 million tonnes by 2033, according to IMARC. Furthermore, niche segments are also witnessing strong growth: for instance, the e-waste sector is projected to expand from USD 1.88 billion in 2025 to USD 2.72 billion by 2030, and the hazardous waste management market is expected to hit USD 1.21 billion by 2030. The waste-to-energy market is also set to grow, potentially reaching USD 3.01 billion by 2029, driven by rising demand for sustainable energy conversion of waste streams.

Looking ahead, the prospects for green entrepreneurship are optimistic. According to the Union Environment Minister, India's circular economy could become a USD 2 trillion opportunity by 2050, generating up to 10 million green jobs. At the same time, India's recycling-equipment market is projected to reach USD 2,641 million by 2030, signaling strong infrastructural investment in technology-led recycling.

However, realizing this potential will require concerted action. Strengthening financial support for early-stage green ventures, enforcing stricter segregation and EPR norms, improving regulatory clarity, and building capacity through skill development are all essential. If these levers are pulled correctly, green startups in India can not only help divert millions of tonnes of waste from landfills, but also transform them into economic opportunities supporting sustainable

development, reducing environmental risks, and creating inclusive employment.

References:

1. **Bhatia, N.** (2021). *Socio-Economic Impact of Green Startups in Urban India.* International Journal of Sustainable Development & Policy.
2. **Central Pollution Control Board (CPCB).** (2023). *Annual Report on Solid Waste Management in India.* New Delhi: Ministry of Environment, Forest and Climate Change.
3. **Gour, A. A., & S. K.** (2025, May 8). *Solid Waste Management in India: A State-of-the-Art Review.* Environ. Eng. Res. 2023; 28(4): 220249. https://www.eeer.org/upload/eer-2022-249.pdf
4. **Gupta, R., & Thomas, J.** (2019). *Drivers of Green Entrepreneurship in Emerging Economies.* Asia-Pacific Journal of Innovation and Entrepreneurship.
5. **Jadhav, H.** (2024). *Empowering the Green Economy: The Role of Green Skills in Sustainable Development.* SAVASS Journal of Social Sciences, XIV(79), 11.
6. **Joshi, D., & Mehra, P.** (2023). *Rise of Circular Economy Startups in India.* Indian Journal of Circular Economy.
7. **Madhura Yadav, S. S.** (2022). *Waste to wealth: Overview of waste and recycled materials in construction industry.* Materials Today: Proceedings, Volume 65, Part 2.
8. **Mehta, S.** (2022). *Regulatory and Financial Barriers to Green Entrepreneurship.* Journal of Environmental Policy & Governance.
9. **Ministry of Environment, Forest and Climate Change (MoEFCC).** (2022). *National Status Report on Waste Management.*
10. **NITI Aayog.** (2023). *Circular Economy in India: Sectoral Pathways.* Government of India.
11. **Patel, M., & Desai, K.** (2023). *Performance Assessment of Emerging Recycling Startups in India.* Indian Journal of Environmental Management.
12. **Raman, K., & Narayan, S.** (2020). *Decentralized Waste Management and Urban Sustainability.* Journal of Urban Sustainability.
13. **Recykal.** (2024). *Annual Impact Report.* Hyderabad: Rapidue Technologies.
14. **Saahas Zero Waste.** (2023). *Sustainability and Impact Report.* Bengaluru.
15. **Sharma, P.** (2020). *Municipal Waste Trends and the Role of Sustainable Ventures in India.* Waste Management & Research.
16. **Singh, R., & Kumar, S.** (2021). *Green Entrepreneurship and Circular Economy Innovations in India.* Journal of Cleaner Production.
17. **Startup India.** (2024). *Green and Climate-Tech Startup Database.* Government of India.
18. **Statista.** (2024). *Waste Generation and Recycling Trends in India.* Statista Research Department.
19. **Verma, A., & Agarwal, T.** (2022). *Economic Potential of the Waste-Management Sector in India.* Environmental Economics Review.