

13th March 2025

High-Level Consultation on Enhancing Plastic Recycling in Pakistan: The Role of Microfinance Institutions in Supporting SMEs



Ecological Sustainability & Circular Economy Unit
Sustainable Development Policy Institute (SDPI)

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1. Introduction

Pakistan generates approximately 3.9 million tons of plastic waste annually, but the country's recycling sector remains largely informal, unregulated, and underdeveloped. SMEs play a crucial role in plastic recycling by offering innovative waste management solutions; however, financial constraints, lack of technical knowledge, and weak policy enforcement hinder their scalability. MFIs have the potential to bridge this gap by providing customized financial products, technical assistance, and capacity-building initiatives.

On March 13, 2025, the Sustainable Development Policy Institute (SDPI) hosted a virtual consultation titled *"Enhancing Plastic Recycling in Pakistan: The Role of Microfinance Institutions in Supporting SMEs."* Moderated by Ms. Amna Urooj and Mr. Umar Farooq, the session convened stakeholders from sustainability organizations, financial institutions, corporations, and startups to address Pakistan's plastic waste crisis. With 3.9 million tons of plastic waste generated annually and a recycling sector dominated by informal practices, the discussion underscored the critical role of SMEs in driving sustainable solutions. Key challenges highlighted included financial constraints, fragmented regulations, and the need for structured support from microfinance institutions (MFIs) to formalize and scale recycling efforts.

2. Key Discussion Points & Speaker Insights

Mr. Rafay Ali Khan – Circularity and Sustainability Officer, WWF-Pakistan

Mr. Rafay Ali highlighted that much of Pakistan's plastic recycling is carried out informally, leading to significant environmental and health risks. He pointed out that the lack of regulation and weak enforcement exacerbates the situation, making it difficult to ensure safe and sustainable recycling practices. He stressed that implementing Extended Producer Responsibility (EPR) policies is essential to provide funding for better infrastructure and to incentivize sustainable practices. Additionally, he emphasized the need for bridging the data gaps in waste assessment, as the lack of traceability remains a major challenge. The discussion underscored that Pakistan must focus on improving governance, investing in new recycling technologies, and ensuring private sector collaboration to bring more structure to the industry.



Ms. Anaum Ather Rana – Manager, Research & BD, Kashf Foundation

Ms. Anaum Ather Rana discussed the role of women in informal recycling, particularly in rural communities. She emphasized that women often lead recycling initiatives but face challenges such as mobility constraints and a lack of financial support. Beyond financial aid, she argued that microfinance institutions should focus on capacity-building programs, strengthening cooperatives, and standardizing best practices to improve the safety and security of recycling workers. She suggested that offering corporate consulting and technical guidance could help SMEs scale sustainably. This perspective sheds light on the need for a more inclusive approach to recycling, ensuring that women receive the necessary support to contribute effectively.



Ms. Fatima Arshad – Head of Sustainability & Corporate Communications, Unilever

Ms. Fatima Arshad elaborated on Unilever's efforts to integrate recycled plastics into its supply chain. She explained how the company has reduced its reliance on virgin plastic by incorporating recycled materials into packaging. Unilever has also been actively working with social startups, providing them with funding and technical capacity-building support. However, she noted that sourcing high-quality recycled materials in Pakistan remains a significant challenge. The company has invested in innovative recycling technologies and blended finance solutions to address these issues. She also highlighted the importance of expanding access to sustainable finance instruments so that SMEs can scale their recycling initiatives effectively. Her insights demonstrated the need for greater corporate engagement in sustainability efforts and stronger collaboration between private enterprises and financial institutions.



Mr. Charles Schneider – Program Manager, IFC

Mr. Charles Schneider discussed various financial instruments that could support SMEs in the plastic recycling sector. He highlighted that while discussions on Extended Producer Responsibility (EPR) policies are ongoing, a significant portion of the market—approximately 80-86%—remains untapped. He identified the sector's lack of formalization as a key barrier to attracting investment and emphasized the need for gradual, systematic steps to enhance industry structure and investment readiness. To de-risk investments and encourage private sector participation, he suggested leveraging green bonds, blended finance, and results-based financing. His analysis underscored that without proper incentives and structured financing models, SMEs would continue to struggle with growth and scalability.

Regulatory challenges remain a key concern, particularly in Pakistan's Punjab province, where EPR regulations for single-use plastics face significant implementation hurdles. While targets aim to establish recycling mechanisms within six months, the reality of underdeveloped infrastructure suggests the process may take up to five years. Additional complexities include regulatory misalignment between provinces, contradictions in food-grade recycled plastic standards, and insufficient fiscal incentives for private-sector waste management initiatives—such as import tariffs favouring municipal bodies over private entities. Producer Responsibility Organizations (PROs) are identified as critical players in operationalizing EPR frameworks, bridging gaps between packaging manufacturers, recyclers, and regulators.

The waste collection value chain in Pakistan is highly informal and fragmented. Though dry recyclables are mostly collected through the informal value chain in larger cities, most of the waste ends up in landfills / open dumping sites.

- Pakistan generates approximately 50 million tons of solid waste a year;

Waste type	%age
Kitchen / garden waste	57%
Dry recyclables	20%
Textiles	04%
Others	19%

- Thousands of scavengers - mostly child labor - work unsupervised in an unregulated environment to collect and sort the waste.

Waste collection value-chain in larger cities (informal estimates)

Mr. Tayyab Saqib – Economic Research Analyst, Pakistan Microfinance Network

Mr. Tayyab Saqib discussed how MFIs could help scale SME solutions in plastic recycling. He noted that informal recycling plants pose a high financial risk since they operate mostly in cash and lack documentation. He argued that strengthening the entire value chain is necessary to formalize the sector and provide SMEs with better financial security. He also pointed out that there is a strong incentive for improved ESG (Environmental, Social, and Governance) reporting, which could help attract further investment. His insights reinforced the idea that financial transparency and stronger value chain management are key to fostering a sustainable recycling industry.

Mr. Shabee Ul Husnain – EHS & Sustainability Director, Envirogreen Technical Services

Mr. Shabee Ul Husnain outlined the key challenges that SMEs face in securing finance for recycling initiatives. He explained that many SMEs lack technical advisory services and struggle with high energy costs. He suggested that offering lower markup rates, easier loan access, and grants could alleviate some of these financial burdens. His perspective highlighted that while technical solutions exist, financial accessibility remains one of the biggest barriers for SMEs in the sector.

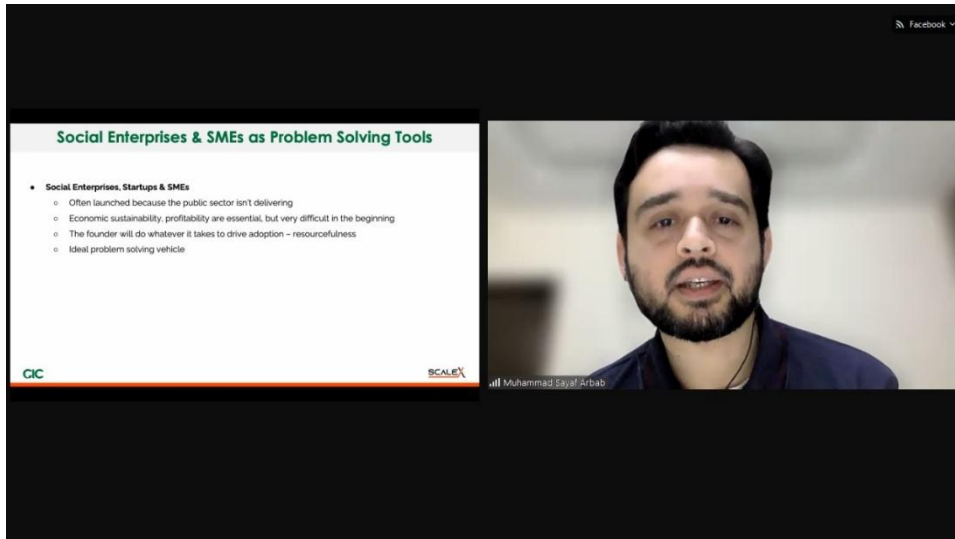


Mr. Muhammad Sayaf Arbab – COO, ScaleX

Mr. Muhammad Sayaf Arbab shared insights into successful business models in waste management, emphasizing the importance of investment readiness before seeking funding. He highlighted global examples such as Rubicon, a digital platform often called the “Uber for waste management,” which optimizes logistics and generates over \$400 million in revenue. TerraCycle, with a revenue of \$70 million, specializes in recycling non-recyclable waste through strategic partnerships, while ReCircle focuses on traceability and compliance in recycling materials like metal and plastic. Local initiatives like TrashIT and ReUpCycleApp are also emerging players in this space.

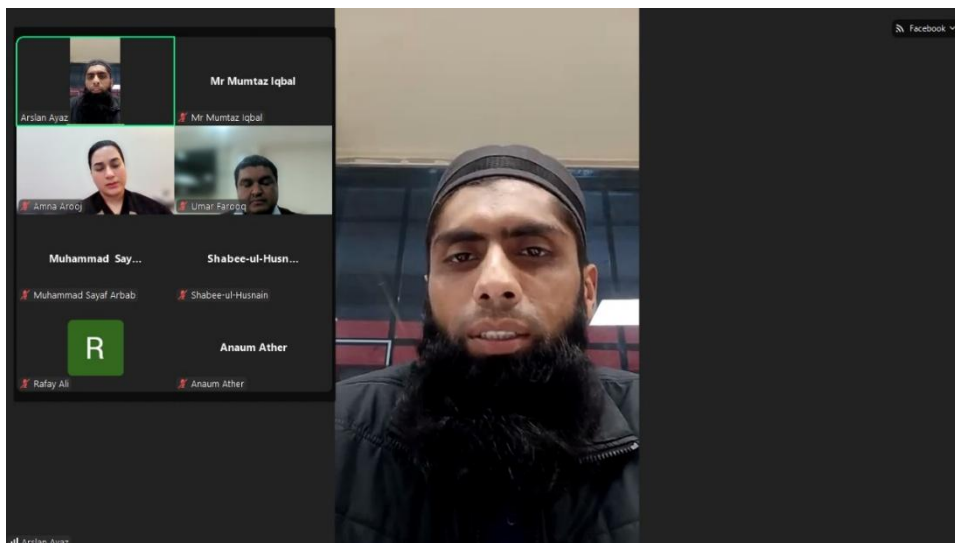
He underscored the role of social enterprises, startups, and SMEs as vital tools for addressing societal challenges, particularly where public sector efforts fall short. These ventures prioritize economic sustainability and profitability, though early-stage growth can be challenging. Founders are recognized for their resourcefulness in driving adoption, positioning these organizations as key problem-solvers in the waste management sector.

The discussion also highlighted the importance of founder-problem fit and strategic direction in scaling ventures. Key milestones include developing a minimum viable product (MVP), achieving product-market fit, and aligning teams for growth. Funding was framed as a catalyst for acceleration rather than a substitute for clear strategy. Diverse funding sources were outlined, ranging from donors like the Gates Foundation, which supports high-risk pilots, to impact funds such as Acumen, which back sustainable models. Corporate venture capitalists like Unilever Ventures provide funding for strategic scaling, while development finance institutions such as IFC and ADB Ventures support large-scale circular economy solutions.



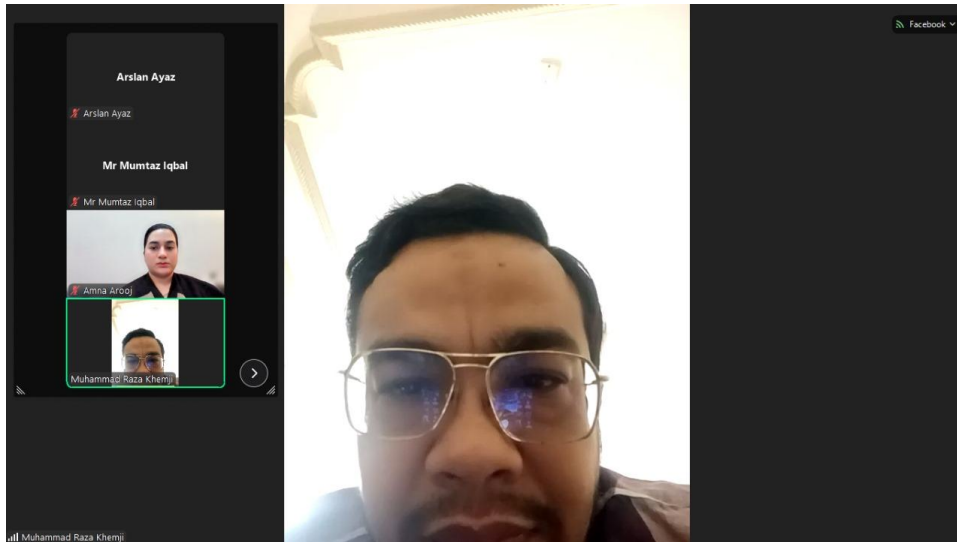
Mr. Arslan Ayaz – Founder & CEO, Trash Bee

Mr. Arslan Ayaz discussed innovative waste collection and sorting methods used by Trash Bee. He explained how the company operates in multiple cities, collecting and segregating waste before sending it for recycling. He announced plans to develop an integrated app that would allow stakeholders to track their contributions and measure impact. However, he noted that regulatory barriers and the preference for informal recycling make scaling difficult. He stressed that interest-free loans and Green Incubation Centres are needed to support startups in the sector.



Mr. Muhammad Reza Khemji – CEO, Bigger Brick

Mr. Muhammad Reza Khemji addressed the infrastructure and logistical challenges that SMEs face in plastic recycling. He pointed out that executing large-scale recycling initiatives is difficult without government intervention. He also noted that imported plastic waste from China is often cheaper than local materials, making it harder for local recyclers to compete. He argued that government policies, such as imposing tariffs on unsustainable products, could encourage a shift toward local recycling solutions.



Ms. Zainab Naeem – Head of Ecological Sustainability & Circular Economy, SDPI

In her closing remarks, Ms. Zainab Naeem emphasized the crucial role that SMEs play in the plastic recycling sector, often demonstrating a deeper understanding of the industry compared to larger corporations. However, despite their contributions, these SMEs and startups struggle to gain proper recognition for their efforts. She also highlighted the challenges faced by women working in the informal sector, noting that their contributions often go unnoticed, and they remain unaware of their rights. Organizations like the Kashf Foundation are making significant strides in addressing these issues and empowering women. Additionally, she stressed the importance of providing platforms for youth, as their innovative ideas have the potential to drive progress in the sector. Without adequate support, talented young individuals seek opportunities elsewhere, leading to brain drain. Complicated bureaucratic processes within companies further exacerbate this issue, discouraging youth participation and pushing them out of the industry.

3. Conclusion and Key Recommendations

The webinar highlighted the urgent need to transform Pakistan’s plastic recycling sector into a structured, inclusive, and financially sustainable industry. By aligning policy reforms, financial mechanisms, and stakeholder collaboration, Pakistan can unlock the potential of SMEs and MFIs to drive its circular economy goals.

The consultation resulted in the following actionable recommendations to advance Pakistan’s plastic recycling ecosystem:

- Enforce EPR frameworks with clear timelines and inter-provincial harmonization.
- Strengthen Producer Responsibility Organizations (PROs) to bridge gaps between manufacturers and recyclers.
- Develop SME-friendly financial products e.g., green bonds, impact investments, and low-interest loans.
- Leverage blended finance to de-risk private sector participation.
- Prioritize women and youth empowerment through training programs and cooperative strengthening.

- Support technical advisory services to improve SME operational efficiency.
- Foster public-private partnerships to address infrastructure gaps.
- Promote digital solutions (e.g., waste-tracking apps) to enhance transparency.

Annex 01 – Concept Note & Agenda

High-Level Consultation on Enhancing Plastic Recycling in Pakistan: The Role of Microfinance Institutions in Supporting SMEs

Date: 13th March 2025 | Time: 11:30 AM to 1:00PM

- **Background and Rationale**

Plastic waste management is a growing environmental concern in Pakistan, with approximately 3.9 million tons of plastic waste generated annually. The lack of adequate recycling infrastructure, weak enforcement of regulations, and limited financial support for Small and Medium Enterprises (SMEs) engaged in plastic recycling exacerbate the issue. SMEs play a crucial role in addressing plastic waste management by developing innovative recycling solutions; however, financial constraints and lack of technical support hinder their ability to scale operations effectively.

Microfinance institutions (MFIs) have the potential to serve as enablers by providing tailored financial products, technical assistance, and capacity-building initiatives to recycling enterprises. Strengthening the role of MFIs can help formalize the recycling sector, improve waste management practices, and promote environmental sustainability.

- **Objectives of the Consultation**

The consultation aims to bring together key stakeholders from the public and private sectors to:

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- Assess the challenges faced by SMEs in the plastic recycling sector, particularly in accessing financing.
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- Explore the role of MFIs in addressing financial and technical constraints for recycling SMEs.
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- Identify policy interventions that can support the formalization of the recycling industry and improve waste management practices.
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- Facilitate knowledge-sharing on global best practices and case studies of successful MFI interventions in waste management.
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- Develop actionable recommendations for integrating MFIs into Pakistan’s plastic waste management strategy.
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- **Target Participants**

- Representatives from the Ministry of Climate Change and Environmental Coordination
- State Bank of Pakistan (SBP) and other financial regulators
- Microfinance institutions and banks
- Industry representatives and SMEs in plastic recycling
- Environmental and waste management organizations

- Academic and research institutions
- Development sector organizations and NGOs
- International agencies (e.g., UNDP, World Bank, IFC)
- **Proposed Agenda**

Time	Session	Speaker
11:30 AM to 11:40 AM	Welcome and Opening Remarks	
11:40 AM to 12:40 AM	Keynote Address The Importance of Microfinance in Sustainable Plastic Waste Management by SMEs	
12:40 PM to 12:50 PM	Q & A session	
12:50 PM to 1:00 PM	Closing Remarks	

- **Expected Outcomes**

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- A comprehensive policy brief outlining key recommendations for integrating MFIs into plastic recycling sector financing.
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- Strengthened collaboration between financial institutions, SMEs, and regulatory bodies to promote sustainable waste management.
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- Development of a roadmap for increasing financial inclusion of SMEs engaged in plastic recycling.
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Access our recent publication here: [Role of Microfinance Institutions in Climate Risk Insurance: A Comparative Analysis of Developed & Developing Countries and Implications for Pakistan](#)