The Circulate Initiative



Unlocking Private Capital for African Plastics Circularity

An Investment Landscape of Five African Nations



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Executive Summary



Africa stands at a critical juncture in the global fight against plastic pollution. Driven by rapid population growth and economic expansion, plastic consumption across Sub-Saharan Africa is projected to increase sixfold by 2060 compared to 2019 levels.[1] Without urgent intervention, the continent risks following the trajectories of other regions like Southeast Asia where plastic consumption has rapidly outpaced municipal waste infrastructure. It is estimated that plastic pollution could lead to annual economic losses of US$ 13 billion across key sectors such as agriculture and tourism, in addition to severe impacts on aquatic ecosystems and public health across the African continent.[2]

Despite Africa accounting for roughly 8% of plastic entering rivers globally, and 80% to 90% of plastic waste on the continent being mismanaged,[3] Africa received only 0.2% of global private investment from 2018 to 2024.[4] Private capital deployment remains split between early-stage seed grants and a handful of large transactions above US$ 10 million. This leaves a "missing middle" for growth-stage recyclers with typical investment needs between US$ 1 million and US$ 5 million.

Africa has a strategic advantage in scaling its plastics recycling industry due to its geographical proximity to the European market, where the demand for recycled plastic resin is increasing. Under the European Union Packaging and Packaging Waste Regulation (PPWR), European packaging manufacturers and consumer packaged goods companies face mandatory minimum post-consumer recycled content targets.[5] Coastal and regional hubs across Africa have a clear logistical opportunity to supply European converters with high-quality recycled feedstock.

If navigated successfully, Africa could mirror the transition seen in Asia over the past decade. Faced with a severe plastic waste crisis, development institutions stepped in with patient, risk-tolerant funding that laid the groundwork to unlock commercial investment. By deploying solutions like below-market loans, flexible equity, and first-loss guarantees today, impact and development funders can de-risk the plastics recycling industry and replicate the kind of transformation seen in Asia, turning an imminent waste crisis into a bankable industry.

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[1] OECD. (2022). Global Plastics Outlook Policy Scenarios to 2060.
[2] Africa Climate Insights. (2024). Africa's bold moves to tackle plastic pollution.
[3] Okeke et. al. (2022). Microplastic burden in Africa: A review of occurrence, impacts, and sustainability potential of bioplastics.
[4] The Circulate Initiative. (2024). Plastics Circularity Investment Tracker.
[5] European Commission. (2024). Proposal for a Regulation of the European Parliament and of the Council on packaging and packaging waste, amending Regulation (EU) 2019/1020 and Directive (EU) 2019/904, and repealing Directive 94/62/EC.

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Examples of Successful Solutions to Plastic Waste

To better understand the current market dynamics and identify potential investment opportunities, The Circulate Initiative assessed the investment landscape for plastics circularity across five African nations: Algeria, Egypt, Kenya, Nigeria, and South Africa. Despite relatively low levels of private investment in these countries overall, there are a number of projects and companies that have attracted private, return-seeking capital, including:



Algeria Integrated Management of Waste Energy at the Local Level (AIM-WELL) project – Private Co-Financing for Municipal Solid Waste (MSW) Infrastructure Development in Algeria:
The AIM-WELL project, which aims to implement source sorting and install a centralized MSW sorting center, illustrates how international development partners can support and promote private co-financing for MSW management infrastructure.



Bariq and Nile Recycling Company – Food-Grade Export Hubs in Egypt:
Bariq and Nile Recycling Company are among the few food-grade PET recyclers on the continent. By utilizing free trade zone incentives in the Suez Canal Economic Zone (SCZONE) and direct shipping lanes to Europe, Nile Recycling Company has transformed local plastic waste into a high-value export that helps European buyers meet recycled content mandates.



Mr. Green Africa – Traceable Sourcing and Blended Growth in Kenya:
Mr. Green Africa developed a technology-enabled, fair-trade sourcing model that integrates over 6,000 informal waste pickers into its recycling supply chain. With a recycling capacity of 20,000 tonnes per year, Mr. Green Africa has been supported by blended impact equity, loans from development finance institutions (DFIs), and corporate off-take agreements with multinationals such as Unilever.



Polysmart – Import Substitution and Scaled Capacity in Nigeria:
Polysmart, an rPET manufacturer, exemplifies the commercial potential of domestic market demand. It executed a US$ 60 million expansion to scale processing capacity to 100,000 tonnes of mixed plastics annually. Backed by central bank debt and private equity, it demonstrates that local recyclers can achieve industrial scale, replace virgin resin imports, and insulate domestic consumer goods companies from currency volatility.



WastePlan – Private Equity-Backed Services in South Africa:
WastePlan has accessed private equity capital to scale its integrated waste management and material recovery facilities (MRFs) to achieve up to 76% landfill diversion for corporate clients in Africa's most established recycling market (34% national recycling rate).

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Key Challenges to Investment

While the examples earlier demonstrate that commercial success is possible, they remain exceptions in a fragmented ecosystem. Scaling similar infrastructure across the five markets, and the continent by extension, requires addressing a number of macroeconomic, operational, and capital barriers:

1. **Municipal waste collection is underfunded and lacks source separation, resulting in feedstock supply and quality challenges.**

   Formal waste collection remains low in several of these countries, for example, Nigeria (44%) and Egypt (55%). Where coverage is higher, for example, in South Africa (61%) and urban Algeria (87%), municipalities collect unsorted waste, with under 8% separated at the source in South Africa. Because municipal services transport mixed waste directly to landfills without sorting, the state recovers almost no material. As a result, 60% to 80% of all post-consumer plastic waste is manually salvaged from streets and dumpsites by informal waste pickers, who serve as the de facto supply chain for the recycling industry. While informal workers retrieve high-value plastics like PET from streets, much of the recyclable material comes from landfills. Consequently, processors receive contaminated materials, resulting in 20% to 30% processing losses alongside higher sorting and washing costs. Thus, the supply of feedstock suitable for high-value applications remains a concern for most recyclers.

2. **Extended Producer Responsibility (EPR) policies are relatively new in the five countries, and demand-side incentives are insufficient to drive sustained, strong demand for recycled plastics.**

   All five countries have established or recently introduced EPR policies. South Africa's system is divided across dozens of producer responsibility organizations (PROs) within the packaging sector, leading to duplicate project grants rather than unified national collection hubs, with municipalities receiving no direct funds.[6] In Kenya, informal collectors lack the tax receipts required for EPR fund payouts. Egypt's rules target only specific single-use plastic bags, leaving other packaging unregulated. Algeria passed mandatory EPR in 2025, but operational rules remain unpublished. In Nigeria, fewer than 50 of an estimated 3,000 plastic producers have registered with the primary PRO. With EPR still at this early stage of development and a general lack of regulations such as mandatory recycled content, the demand for recycled plastics remains subject to fluctuations in virgin feedstock prices.

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[6] Department of Forestry, Fisheries and the Environment (DFFE). (n.d.). EPR Search Registrations.

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3. **Power grid failures and high utility tariffs increase operating costs for recyclers and restrict capacity utilization.**

   Commercial debt financing is scarce and poorly suited to the long payback cycles of recycling equipment. According to our Plastics Circularity Investment Tracker (PCIT), Kenya, Egypt, and Nigeria recorded debt financing between 2018 and 2025. Nigeria leads with 59% of its US$24 million in private investments coming from debt, mainly via a US$12 million central bank loan. However, Nigerian commercial interest rates of 30% contrast sharply with foreign operators accessing overseas capital at single-digit rates. Local operators struggle to borrow at these rates to upgrade processing lines or install reliable energy systems such as solar power.

5. **Limited working capital creates a cash-flow gap for recyclers.**

   Processors face a cash-flow gap across the five countries: they must pay informal waste pickers immediately in cash, while corporate buyers pay on 30- to 90-day terms. High operating expenses and volatile raw material prices make continuous working capital essential for recyclers to purchase inventory, cover utilities, and maintain daily operations.

6. **Commercial banks consider recycling plants high risk, limiting access to finance for expansion.**

   Commercial bank loans are scarce and poorly suited to the long payback cycles of recycling equipment. In South Africa, recyclers face difficulty securing commercial property insurance, restricting access to bank debt that requires insured assets as collateral. In Nigeria, high commercial interest rates (they can be 30% or higher) prevent recyclers from borrowing to upgrade processing lines or install on-site power generation, for example, solar photovoltaics. To illustrate the lack of bank loans, according to the Plastics Circularity Investment Tracker (PCIT), there were only five debt transactions out of 231 deals (2%) in Egypt, Kenya, and Nigeria between 2018 and 2025. These transactions are mainly loans from DFIs, all less than US$ 10 million.

7. **Currency volatility, foreign exchange limits, and high inflation complicate cross-border debt financing.**

   Macroeconomic pressures create financial risks for operators. Currency devaluations in Nigeria, Egypt, and South Africa create challenges for companies holding foreign currency debt while earning local currency revenues. Central bank controls delay capital repatriation in Algeria and Egypt. These pressures require local-currency financing, blended capital, and active foreign exchange hedging to protect investment returns.

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Improving Investment Conditions in Africa

These structural and macroeconomic risks across the five markets make it challenging for institutional investors to identify investment opportunities. However, with impact mandates and access to different financial mechanisms, other types of investors, including DFIs, philanthropic funders, and impact investors, can absorb these risks and deploy capital. By deploying targeted grants, blended finance, and concessional debt, catalytic funders have an important role to play in addressing the core infrastructure bottlenecks, absorbing early-stage risk, and building the foundation required to bring in commercial capital at scale. We see the following approaches as critical to addressing these challenges:



Grants and technical assistance are most needed for collection and aggregation.
Thin operating margins at these early stages of the value chain cannot support high-interest bank loans. Grant funding is necessary at this stage to cover the cost of equipment such as balers and shredders for regional collection hubs, while technical assistance can alleviate the administrative challenges of supporting the informal sector and setting up digital tracking tools.



Low-interest concessional loans, credit guarantees, and matching grants are best suited for primary processing.
High commercial bank rates currently make equipment upgrades unaffordable for mid-sized recyclers.[7] Low-interest loans allow factories to install off-grid solar systems, grid transformers, and automated washing lines, reducing energy expenses and mitigating the risk of disruption to electricity supply. Financial credit guarantees can enable local banks to extend credit and support recyclers with working capital.



Growth equity and long-term off-take agreements are required for large-scale recycling facilities and conversion.
Building large-scale, food-grade processing plants requires substantial long-term investment that commercial banks hesitate to fund alone. Equity capital is needed in this scenario, and long-term corporate buyer contracts provide stable demand.

[7] Across this report, the value chain is segmented into three stages: (1) collection and aggregation, covering manual recovery from streets and landfills by individual informal waste pickers or groups of informal or semi-formal waste collectors such as Egypt's informal Zabbaleen network or Kenya's community-based organizations (CBOs), followed by consolidation at regional hubs equipped with balers and shredders; (2) primary processing, covering pre-treatment, washing, and granulation by mid-sized recyclers to produce flakes and pellets; and (3) large-scale recycling facilities and conversion, covering advanced processing to produce food-grade rPET resin for off-takers and packaging converters.

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By aligning financial instruments with these value chain realities, catalytic funders can deploy targeted support where it matters most. We documented five high-impact interventions where capital – public, private, or a combination – can de-risk future investments for private return-seeking investors and potentially unlock more capital to address plastic waste.

1. **Establish decentralized collection hubs using grants and shared infrastructure funds.**

   Rather than relying on private recyclers to fund municipal waste collection, grant funding and public-private partnership capital can be used to expand regional collection depots outside major cities. These collection points will help with the diversion of recyclables, including plastics, from disposal sites. Because collection sites produce low profit margins that cannot support expensive bank loans, grant funding can help absorb the upfront purchase costs for balers, shredders, and waste collection vehicles. This allows satellite hubs to crush and pack material on site, making long-distance transport more cost-effective and creating a steady feedstock supply for factories.

2. **Direct loans and grant funding to support recyclers with equipment upgrades and energy systems to reduce reliance on the grid.**

   To prevent energy outages and high fuel bills from eroding profits, low-interest loans and grants can support factories to upgrade their equipment (e.g., commercial washing lines) and install on-site power generation (e.g., solar). This reduces operating risks for recyclers, allowing them to maintain stable power, run at full capacity, and produce clean recyclate that competes with imported raw plastic. This could present an opportunity for investors in renewable energy that are sector agnostic to play a role in providing capital to recyclers.

3. **Deploy technical assistance and incentive grants to support informal waste workers.**

   The informal sector plays an essential role in plastic waste management across the five countries, and it is critical that interventions do not displace existing informal collection networks, but rather integrate informal waste workers into the formal economy. Technical assistance and grant funding can support the organization of informal waste sector workers into cooperatives and lower compliance costs to obtain relevant licenses and registrations to access producer funds and social protections. Grant funding is well suited for these purposes since the return on investment for supporting waste pickers may not be clear or immediate –despite the potential social benefits and improvement in feedstock supply and quality.

4. **Offer low-interest concessional loans to provide working capital to recyclers.**

   To address the cash-flow gap that recyclers face between paying for feedstock immediately and longer payment terms with buyers, working capital loans can help recyclers better manage their cash flows amidst volatile market prices and high operating costs. Working capital allows recyclers to purchase feedstock and maintain daily operations, and eventually support improved traceability in the supply chain as recyclers have the capability to improve their operations and equip their facilities with digital systems. With clearer digital records, recyclers can prove their business income history and make processors eligible for local bank loans.

5. **Use technical assistance grants to streamline permits and price protection guarantees to enforce packaging rules.**

   To address the related challenges of bureaucratic permit delays and market price volatility, international development donors can provide policy technical assistance grants to national authorities to simplify the administrative process for recyclers. The grants can fund digital tools and expert advisory teams to combine overlapping state, national, and local permits into a single official process. At the same time, catalytic funders can offer price-floor guarantees to protect recyclers from sudden drops in virgin plastic prices. This financial insurance shields recycler revenues while authorities draft and enforce packaging rules and minimum recycled content mandates, securing long-term buyer demand.

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Country Snapshots

While the five countries share similar barriers for investment in solutions to plastic waste, there are challenges unique to each country. Thus, the interventions referenced above may differ based on each country's needs.

Below, we provide a snapshot of each country's investment landscape for plastics circularity across five key dimensions:

1. Plastic waste generated (amount and composition)

2. End-of-life fates (including recycling rates)

3. Private investment in solutions to plastic waste

4. Key policies governing plastic waste

5. Key opportunities and recommendations

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Algeria

Algeria is an upper middle income market with broad economic stability, though reliance on hydrocarbon revenues continues to leave the economy vulnerable to global oil price fluctuations. Waste management costs are mostly borne by the state and there are minimal private investment in plastics circularity. Algeria has a low recycling rate, constrained by limited source segregation and processing infrastructure, regulatory enforcement gaps, and structural risks in the business environment.

PLASTIC WASTE GENERATED

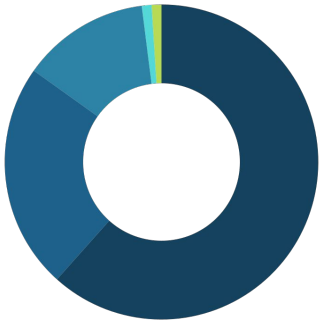
2.1 million tonnes

(National Waste Agency, 2020 data)

COMPOSITION OF PLASTIC WASTE

- **PE: 61%** *(53% plastic bags, 6% HDPE, 2% LDPE)*
- **PET: 23%**
- **PP: 13%**
- **PS: 1%**
- **PVC: 1%**

(National Waste Agency, 2020)



END OF LIFE FATES OF PLASTIC WASTE



Recycled

5%

(Center for Research in Applied Economics for Development through Horizons, 2024)

Landfill

10%

(National Waste Agency, 2020)

Mismanaged [8]

85%

(National Waste Agency, 2020)

[8] *Mismanaged waste includes uncollected waste and waste left at disposal sites. This also includes waste that is openly burnt and leaked into the environment.*

PRIVATE INVESTMENTS IN PLASTICS CIRCULARITY (2018 TO 2025)

# of deals:	US$ of deals:
1	**70,000**

Investment archetype:

Recycling (seed venture investment in office waste startup Revadex in 2023)

KEY POLICIES GOVERNING PLASTIC WASTE

- **Law 25-02** (mandates EPR regulations)
- **National Strategy for Integrated Waste Management** (aims to optimize waste management infrastructure and promote private sector participation)
- **Finance Law No. 19-14** (Value Added Tax (VAT) of DZD 200 per kilogram on imported and locally produced single-use virgin plastic bags)

KEY OPPORTUNITIES AND RECOMMENDATIONS

- Fund regional transfer depots with commercial equipment and selective sorting centers at landfills, aligned with SNGID 2035
- Direct lower-interest loans and matching grants toward factory infrastructure, off-grid energy systems, and automated sorting/washing lines to overcome utility constraints
- Operationalize Law 25-02, modernize municipal tax collection, and provide technical assistance to formalize and integrate informal waste pickers

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Egypt



The most populous North African nation, Egypt has strong economic fundamentals and strategic trade positioning as it is situated at the intersection of Africa, Europe and Asia. However, macroeconomic stability remains exposed to foreign exchange shortages, inflation, and public debt servicing. While informal networks capture high volumes of PET before disposal, the broader sector is challenged by overlapping ministry jurisdictions, high compliance overheads for formalization, and narrowly specific EPR framework on single-use plastic bags.

PLASTIC WASTE GENERATED

2.5 million tonnes

(ACEN Egypt's Circular Economy Strategy and Action Plan, 2023 data)

COMPOSITION OF PLASTIC WASTE

- **PE: 73%**
- **PET: 13%**
- **PP: 5%**
- **Other plastics: 9%**

(UNIDO, 2024)



END OF LIFE FATES OF PLASTIC WASTE



Recycled
30%
(UNIDO, 2024)

Reused
5%
(UNIDO, 2024)

Mismanaged/Incinerated
65%
(UNIDO, 2024)

PRIVATE INVESTMENTS IN PLASTICS CIRCULARITY (2018 TO 2025)

# of deals:	US$ of deals:
62	**36 million**

Top three investment archetypes:
Recycling (95% of total US$ investments),
Operational Platforms (4%),
Recovery (0.3%)

KEY POLICIES GOVERNING PLASTIC WASTE

- **Law on Waste Management / Law No. 202 of 2020** (restricts single-use plastics (SUPs) and authorizes economic incentives for producers and eco-friendly alternatives, and introduces EPR principles)
- **Green Label System for Plastic Products / Article 52 of Law No. 202** (defines design requirements for recyclability)
- **Prime Ministerial Decree No. 662/2025** (mandates EPR regulations targeting single-use plastic bags)
- **Article 3 of Law No. 67 of 2016** (reduced tax rate of 5% for machinery and equipment used for production or services, including recycling, compared to the standard 14% rate)

KEY OPPORTUNITIES AND RECOMMENDATIONS

- Deploy grant funding for digital traceability platforms, co-matching grants for pre-treatment and sorting equipment, and technical assistance to formalize informal waste sector workers
- Direct growth equity, concessional debt, and first-loss guarantees toward automated washing lines and food-grade rPET facilities
- Expand mandatory EPR rules beyond single-use bags to all packaging, establish a single digital portal for business permits, and enforce packaging standards and green product eco-labels

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Kenya

The sixth largest economy in Africa, Kenya features a strong regional startup ecosystem. However macroeconomic pressures from high public debt and regulatory compliance burdens persist. The recycling sector is constrained by collection and processing gaps, high inter-county logistics costs, and tax documentation requirements that block EPR funds from flowing to informal collectors and affect recyclers who must pay VAT on raw material purchases.

PLASTIC WASTE GENERATED

938,000

tonnes

(WWF Kenya, 2022)

COMPOSITION OF PLASTIC WASTE

- Polyester: 22%
- PP: 22%
- LDPE/LLDPE: 11%
- HDPE: 10%
- PET: 9%
- PVC: 7%
- PS: 1%
- Other plastics: 18%

(WWF Kenya, 2022)



END OF LIFE FATES OF PLASTIC WASTE



Recycled

8%

(CEJAD, 2023)

Mismanaged

92%

(CEJAD, 2023)

PRIVATE INVESTMENTS IN PLASTICS CIRCULARITY (2018 TO 2025)

# of deals:	US$ of deals:
61	**59 million**

Investment archetypes:

Recycling (93% of total US$ investments),

Alternative Materials (4%),

Recovery (3%)

KEY POLICIES GOVERNING PLASTIC WASTE

- **Environmental Management and Co-ordination Act** (established the National Environment Management Authority or NEMA)
- **Sustainable Waste Management Act (SWMA) 2022** (introduces EPR framework principles)
- **SWMA (EPR) Regulations 2024** (mandate EPR regulations)
- **Environmental Management and Co-ordination (Management and Control of Plastic Packaging Materials) Regulations** (prohibit certain plastic carrier bags, flat bags and plastic films)
- **Finance Act 2025** (excise duty of 25% or KES 200 per kilogram on select imported plastic products)

KEY OPPORTUNITIES AND RECOMMENDATIONS

- Deploy decentralized pre-processing equipment at regional collection depots and fund the construction and expansion of operational MRFs in secondary counties
- Provide blended finance to support smaller-scale processors transition from manual operations, and accessible equipment loans to help processors bring manufacturing in-house
- Harmonize waste transport permits and resolve administrative bottlenecks in EPR fee flows

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Nigeria

Nigeria is Africa's most populous economy and is amongst the world's fastest urbanizing nations. Just 10% of the plastic waste generated is recycled, with mechanical recycling capacity mainly concentrated in Lagos. However, the recycling sector is constrained by high feedstock contamination, power grid failures, higher interest rates and fragmented state-federal governance.

PLASTIC WASTE GENERATED

2.5 million tonnes

(Centre for Science and Environment, 2023)

COMPOSITION OF PLASTIC WASTE

- PE: 37%
- PP: 22%
- PET: 20%
- PVC: 5%
- PS: 5%
- Other plastics: 10%

(PWC, 2019)



END OF LIFE FATES OF PLASTIC WASTE



Recycled

10%

(World Economic Forum, 2020)

Mismanaged

90%

(World Economic Forum, 2020)

PRIVATE INVESTMENTS IN PLASTICS CIRCULARITY (2018 TO 2025)

# of deals:	US$ of deals:
57	**12 million**

Top three investment archetypes:
Recycling (74% of total US$ investments),
Operational Platforms (25%),
Refill/Reuse (0.7%)

KEY POLICIES GOVERNING PLASTIC WASTE

- **National Policy on Plastic Waste** (formalizes the transition toward a circular plastics economy)
- **Implementation Guidelines on Collection, Diversion, Recycling and Single-use Plastics for National Policy on Plastic Waste Management (2024)** (focuses on enhancing waste collection, scaling local recycling and reducing SUPs circulation)
- **National Environmental (Plastic Waste Control) Regulations** (mandate EPR regulations)

KEY OPPORTUNITIES AND RECOMMENDATIONS

- Invest in regional collection hubs outside Lagos, providing grant capital and technical assistance for financial record-keeping
- Direct grants and low-interest concessional loans toward on-site hybrid energy systems and fund factory machinery upgrades
- Strengthen the enforcement of EPR legislation and provide technical and policy support to enforce domestic recycled content mandates

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South Africa

While South Africa's advanced capital markets, sophisticated financial infrastructure, and diversified industrial base provide a solid foundation for investment, broader economic stagnation and exchange rate volatility persist. At 34%, the plastics recycling rate is the highest among the countries in this assessment. Yet, landfilling and mismanagement are high, combined with high utility and labor costs and PRO fragmentation.

PLASTIC WASTE GENERATED

1.4 million tonnes

(Plastics SA, 2024 data)

COMPOSITION OF PLASTIC WASTE

- PP: 20%
- LDPE: 20%
- PET: 13%
- HDPE: 10%
- PVC: 10%
- Polyester: 7%
- PS: 3%
- Other plastics: 19%

(IUCN, 2018 data)



END OF LIFE FATES OF PLASTIC WASTE



Recycled
34%
(Plastics SA, 2024 data)

Sanitary landfills
32%
(Plastics SA, 2024 data; CSIR, 2022)

Mismanaged
35%
(CSIR, 2022)

PRIVATE INVESTMENTS IN PLASTICS CIRCULARITY (2018 TO 2025)

# of deals:	US$ of deals:
50	**80 million**

Top three investment archetypes:
Recovery (45.2% of total US$ investments),
Recycling (44.7%),
Digital Mapping (9%)

KEY POLICIES GOVERNING PLASTIC WASTE

- **National Waste Management Strategy (NWMS) 2020** (serves as the primary strategic framework for waste management)
- **National Environmental Management: Waste Act (NEMWA) EPR Regulations (2020)** (mandate EPR regulations)
- **Amendments to the Plastic Carrier Bags and Plastic Flat Bags Regulations** (mandate recycled content targets)

KEY OPPORTUNITIES AND RECOMMENDATIONS

- Direct grants toward expanding MRFs in secondary municipalities outside major metropolitan areas and upgrading existing ones with automated sorting
- Provide investments toward on-site energy systems and upgrading processing lines and equipment to expand local output into high-value recyclate
- Deploy policy technical assistance to address PRO fragmentation and direct EPR funds toward synchronized national infrastructure

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Glossary

Abbreviation/ Term	Definition
APC	Municipal assemblies (Algeria)
CBO	Community-based organization (Kenya)
CET	Class 2 technical landfill centre (Algeria)
DFFE	Department of Forestry, Fisheries and the Environment
DFI	Development Finance Institution
DMA	*Déchets Ménagers et Assimilés* or Municipal and Assimilated Waste (Algeria)
EAC	East African Community
EPIC	Public entity managed by local authorities (Algeria)
EPR	Extended Producer Responsibility
eTIMS	electronic Tax Invoice Management System (Kenya)
FBRA	Food and Beverage Recycling Alliance (Nigeria)
GAFI	General Authority for Investment and Free Zones
HDPE	High-density polyethylene
KEPRO	Kenya Extended Producer Responsibility Organization (Kenya)
KT	Kilotonnes
LAGRA	Lagos Recyclers Association (Nigeria)
LDPE	Low-density polyethylene
MRF	Materials Recovery Facility
MSW	Municipal Solid Waste
NEMA	National Environment Management Authority (Kenya)
NESREA	National Environmental Standards and Regulations Enforcement Agency (Nigeria)
NIPC	Nigerian Investment Promotion Commission (Nigeria)
NPAP	National Plastics Action Partnership

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Abbreviation/ Term	Definition
ODA	Official Development Assistance
PET	Polyethylene Terephthalate
PP	Polypropylene
PPP	Public-Private Partnership
PRO	Producer Responsibility Organization
PS	Polystyrene
PVC	Polyvinyl Chloride
rPET	Recycled Polyethylene Terephthalate
SDGDMA	Master Plan for Municipal and Assimilated Waste Management (Algeria)
SNGID	National Strategy for Integrated Waste Management (Algeria)
SUPs	Single-use plastics
SWMA	Sustainable Waste Management Act (Kenya)
TEOM	Household waste collection tax (Algeria)
WMRA	Waste Management Regulatory Authority (Egypt)

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Introduction

Africa stands at a critical juncture in the global fight against plastic pollution. Driven by rapid urbanization and economic expansion, Africa's economy is projected to grow by 4% in 2026 – higher than the global average.[9] This growth will increase plastic consumption across Sub-Saharan Africa sixfold by 2060 compared with 2019 levels.[10] If the continent follows the historical trajectory of other emerging markets where consumption outpaced municipal waste collection, Africa will face escalating plastic leakage, ocean pollution, and severe economic strain. Egypt, Nigeria, and South Africa are among the largest contributors to plastic leakage on the continent, and alongside Algeria, they rank among the top 20 coastal countries globally contributing to marine plastic pollution. Beyond harming ocean health and biodiversity, plastic pollution negatively impacts human health, climate change, and local economies, with Kenyan President William Ruto noting that plastic waste costs key African sectors such as agriculture and tourism roughly US$ 13 billion annually.[11]

Despite Africa accounting for roughly 8% of plastic entering rivers globally, and 80% to 90% of plastic waste on the continent being mismanaged,[12] Africa received only 0.2% of global private investment from 2018 to 2024.[13] Closing this investment gap is critical to avoid exponentially higher environmental, economic, and human health impacts.

While there is a shortage of private investment in plastics circularity across Africa, the continent has a strategic advantage due to its geographic proximity to European off-take markets. Under the European Union PPWR and related directives, European product manufacturers face mandatory minimum post-consumer recycled content targets, elevating high-grade recycled resin into a global commodity.[14] North African markets such as Egypt and Algeria, alongside key coastal hubs including Kenya, Nigeria, and South Africa, have a strong logistical advantage in supplying European converters with high-quality recycled feedstock.

Unlocking this potential will require targeted engagement from catalytic funders, including DFIs, philanthropic foundations, and impact investors. These organizations possess the mandate and financial tools necessary to operate within emerging market environments and mitigate structural risks. By deploying grant funding, blended finance, and concessional debt, catalytic investors can address many of the foundational operational bottlenecks found across the continent and de-risk the value chain, which can lay the foundation for institutional investment across the continent.

Objectives

With financial support from Builders Vision Philanthropy, The Circulate Initiative assessed the investment landscape across five African countries: Algeria, Egypt, Kenya, Nigeria, and South Africa. The assessment covers barriers and enablers in plastic waste management and recycling, focusing on waste management systems, regulatory environments, and markets for recycled plastics. We also examined private and public investment flows for plastics circularity.

In this report, we pinpoint critical funding gaps and highlight actionable opportunities for catalytic capital to de-risk the sector. We share perspectives on the opportunities for different kinds of investors to consider as well as any challenges investors may encounter within each country. Commentary on investment risks do not constitute an exhaustive analysis of inherent market risks.

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[9] AFDB. (2025). African Economic Outlook 2025—Africa's short-term outlook resilient despite global economic and political headwinds.
[10] OECD. (2022). Global Plastics Outlook Policy Scenarios to 2060.
[11] Africa Climate Insights. (2024). Africa's bold moves to tackle plastic pollution.
[12] Okeke et. al. (2022). Microplastic burden in Africa: A review of occurrence, impacts, and sustainability potential of bioplastics.
[13] The Circulate Initiative. (2024). Plastics Circularity Investment Tracker.
[14] European Commission. (2024). Proposal for a Regulation of the European Parliament and of the Council on packaging and packaging waste, amending Regulation (EU) 2019/1020 and Directive (EU) 2019/904, and repealing Directive 94/62/EC.

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Methodology and Approach

Our research, conducted between January and August 2026, consisted of interviews with key ecosystem stakeholders and a literature review of reports and analysis from other organizations.

For the interviews, we partnered with local organizations in each country to engage key stakeholders, including recyclers, waste management companies, industry associations, government authorities, civil society groups, and investors. These partners conducted interviews to gather stakeholder perspectives on investment barriers and opportunities, and perspectives on what could make the sector more investable. Recycler interviews focused on operations, feedstock supply challenges, and business growth barriers, while validating quantitative data points from desk research. We convened online roundtable discussions with four to five key stakeholders per country to validate core themes and insights. For Algeria, the review was conducted over email.

We conducted desk research to identify key data on plastic waste generation, waste collection coverage, and relevant policies. Using reports, articles, and data sets from governments, key organizations in the plastics and waste management sector, academia, and multilateral institutions such as the World Bank, we gathered quantitative data and qualitative insights on plastic production, waste management status, and key industry challenges. Robust and complete data on waste including amounts generated, composition, and collection rates can be a challenge to obtain, with most countries lacking centralized, current data sets.[15] Because of this, some data used in this report might be outdated.

To map the current investment landscape, we evaluated both public and private funding. For government funding data, we relied mainly on publicly available information, supplemented with data from interviews with relevant government bodies. We sourced official development assistance (ODA) funding data from the Organisation for Economic Co-operation and Development (OECD) data platform on development finance for the sustainable ocean economy.[16] The database includes data from 2018 to 2024. We only included projects which were marked as waste management/disposal or categorized as land-based ODA and reflected commitment amounts. For funding from DFIs, we conducted desk research to identify projects with waste management components from 35 known multilateral development banks (MDBs) between 2018 and 2025. We only included country-specific projects solely focused on solid waste management and plastics circularity, excluding multi-sector or multi-country initiatives due to the lack of clear funding delineation. DFI projects whose recipients are private companies are also not included as the data would have been recorded within our PCIT data. Private investment amounts are based on our PCIT data, which covers transactions from 2018 to 2025.[17] Since the data periods are different across the funding sources, we show an annual average of each funding source for comparison.

In each country section below, we start with a summary of key findings, listing the key highlights of the country's assessment. The remainder of the country section is organized as follows:

1. Regulatory landscape
2. State of plastic waste and waste management
3. Investment landscape
4. Opportunities and recommendations

In the opportunities and recommendations section, we recognize the structural and macroeconomic risks that make it challenging for private investors to deploy capital in these markets. Yet, we share key priorities for each value chain stage and the recommendations to help strengthen the enabling environment for investments.

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[15] ODI. (2022). Waste management in Africa - A review of cities' experiences.
[16] OECD. (2024). Data platform on development finance for the sustainable ocean economy.
[17] While the online PCIT only features values from 2018 to 2024 at the time of writing, we updated the data to include additional deals from 2025 for the five countries.

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Country Deep Dive: Algeria



SNAPSHOT

PLASTIC WASTE GENERATED

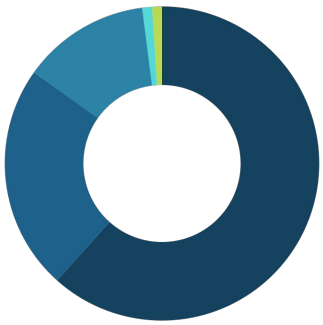
2.1 million tonnes

(National Waste Agency, 2020 data)

COMPOSITION OF PLASTIC WASTE

- **PE: 61%** *(53% plastic bags, 6% HDPE, 2% LDPE)*
- **PET: 23%**
- **PP: 13%**
- **PS: 1%**
- **PVC: 1%**

(National Waste Agency, 2020)



END OF LIFE FATES OF PLASTIC WASTE



Recycled

5%

(Center for Research in Applied Economics for Development through Horizons, 2024)

Landfill

10%

(National Waste Agency, 2020)

Mismanaged

85%

(National Waste Agency, 2020)

PRIVATE INVESTMENTS IN PLASTICS CIRCULARITY (2018 TO 2025)

# of deals:	US$ of deals:
1	**70,000**

Investment archetype:

Recycling (seed venture investment in office waste startup Revadex in 2023)

KEY POLICIES GOVERNING PLASTIC WASTE

- **Law 25-02** (mandates EPR regulations)
- **National Strategy for Integrated Waste Management** (aims to optimize waste management infrastructure and promote private sector participation)
- **Finance Law No. 19-14** (Value Added Tax (VAT) of DZD 200 per kilogram on imported and locally produced single-use virgin plastic bags)

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Algeria was reclassified as an upper middle income economy in 2024, with gross domestic product (GDP) reaching US$287 billion in 2025 and an annual growth rate of 3.8%.[18] This change was driven by updated GDP tracking methods, steady infrastructure spending, and social programs aimed at poverty reduction.[19] As Africa's leading gas producer and one of its largest oil producers, Algeria relies heavily on energy exports. The oil and gas sector accounted for 13% of GDP and 83% of exports between 2020 and 2024.[20] The government has introduced measures to diversify its economy, and since 2017, non-hydrocarbon exports have tripled, reaching US$ 5.1 billion in 2023 (2% of GDP).[21] However, diversification remains limited, leaving the economy vulnerable to global oil price volatility.[22]

Key highlights from our assessment of Algeria's regulatory landscape, state of plastic waste and waste management, and investment landscape include:



- EPR regulations were recently made mandatory in 2025, signaling strong policy intent, but the regulations are not yet fully operational.
- Enforcement gaps and limited institutional capacity remain key challenges for effective implementation of policies.



- Algeria has limited collection and recycling capacity. Limitations in existing formal waste infrastructure and a lack of source segregation result in low feedstock quality, while recyclers face operational challenges due to utility risks and limited access to capital, which limit their ability to expand.
- Demand for recycled plastics is driven by domestic consumption, but it continues to be limited by volatile market prices.



- Funding for Algeria's waste management mainly comes from state budgets, with minimal private investments or development funding.
- Although the government has introduced investment laws to promote private sector investment, bureaucratic hurdles and instability in economic policies continue to make the investment climate difficult for investors. The country's reliance on hydrocarbon revenues also continues to leave the economy vulnerable to global oil price fluctuations.

[18] World Bank. (2026). Algeria.
[19] World Bank. (2024). Algeria's Ambitious Path for Development.
[20] World Bank. (2026). Algeria.
[21] World Bank (2025). How Algeria is Crafting a Dynamic Economy for Tomorrow.
[22] Hamza, Z. and Almi, H. (2025). Navigating Algeria's Investment Landscape: Opportunities And Challenges In Foreign Direct Investment.

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PROJECT IN SPOTLIGHT:

AIM-WELL (Algeria Integrated Management of Waste Energy at the Local Level) Engages Private Actors for Infrastructure Development

The AIM-WELL project, involving the United Nations Development Programme (UNDP) and the Ministry of Environment and Renewable Energy, aims to promote integrated and comprehensive solid waste management and leverage the private sector.

The project supports the diversion of plastic waste from landfills through the establishment of a 750 tonnes-per-day municipal sorting facility and the creation of an enabling environment for recycling companies. The project introduces financial mechanisms and market incentives specifically tailored for local recycling companies. The establishment of an integrated supply chain with standardized upstream sorting, improved material quality, and a formalized market environment helps Algeria transition from a linear economy model and reduce its reliance on state budgets and municipal funding for waste collection, which is not financially sustainable.

The project also demonstrates how international development partners can catalyze private co-financing for MSW infrastructure. The project includes total co-financing of about US$ 20 million and a Global Environment Facility (GEF) grant of about US$ 4 million. 60% of the project co-financing comes from the private sector, including a consortium of three private Canadian companies (Global Green Links Inc., Sherbrooke OEM Ltd, and Lakson International Development Incorporated) to support the commercial infrastructure plans. The project is actively working to structure and validate a robust public-private partnership (PPP) framework. The technical assistance rendered helps build the technical capacity of local authorities in structuring the financial models and making informed decisions for partner selection. Strong ownership of the PPP business plan sends a strong credibility signal to the market, reassuring private investors of the project's economic viability and ensuring overall bankability.

SOURCES:

Climate Project Explorer. (2023). AIM-WELL: Algeria Integrated Management of Waste Energy at the Local Level

UNDP. (2026). Mid-Term Evaluation of Integrated management of solid waste project.

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Regulatory Landscape

Algeria made EPR mandatory in 2025, establishing a policy foundation for circular economy growth as operational frameworks take shape.

Algeria first introduced the shift toward a circular economy through the National Strategy for Integrated Waste Management (SNGID 2035). This framework, introduced in 2019, aims to optimize waste management by developing collection and recovery infrastructure that meets international standards, restructuring financial frameworks, and reforming the legal landscape to provide incentives and promote private sector participation.[23] With the gradual implementation of the strategy by 2035, expected results include the promotion of source separation and recycling and an increased role for the private sector with an estimated US$ 405 million (DZD 54 billion) in public-private investment potential, according to the Algerian government.[24]

EPR regulations were made mandatory in 2025 through Law 25-02, which modifies and supplements Law No. 01-19 of December 12, 2001, on waste management, control, and disposal. Law 25-02 introduces comprehensive measures for integrated waste management.[25] Under the law, producers are required to either carry out waste recovery themselves, entrust it to a specialized company or join Eco-Jem – established in 2004 as Algeria's public system for collecting and recovering packaging waste.[26] The contributions collected by Eco-Jem will be redistributed to municipalities, authorized collectors, and recyclers to fund selective collection, sorting, and material recovery infrastructure. Law 25-02 also promotes eco-design to ensure product durability and recyclability from manufacturing, while phasing out certain single-use plastic products.[27] However, EPR mandates are not yet fully operational in practice because key implementation details, such as rules for running a PRO, have not been published.[28]

The government also introduced fiscal policies to promote recycling and discourage the use of single-use virgin plastics, including imported materials. Finance Law No. 19-14 introduced a VAT of DZD 200 per kilogram on imported and locally produced single-use virgin plastic bags.[29] A reduced VAT rate of 9% was applied to recoverable plastic waste.[30] The government also provides tax exemptions and interest-free loans for recycling equipment through support schemes and micro-enterprise creation programs via the National Entrepreneurship Support and Development Agency (NESDA).[31]

Enforcement gaps and limited institutional capacity are challenges for effective policy implementation.

Enforcement of existing penalties is limited due to a lack of technical capacity and qualified staff. This is compounded by weak oversight of unlicensed activities and uneven compliance with environmental standards, leaving compliant actors inadequately protected.[32] Administrative bottlenecks, including long approval timelines, machine-import authorizations, and documentation requirements, contribute to uneven compliance among recyclers. Although Law 25-02 introduces stronger penalties through revised provisions, policy implementation remains gradual.[33]

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[23] Ministry of the Environment and Quality of Life. (2022). Waste and Recycling.
[24] Ministry of the Environment and Quality of Life. (2022). Waste and Recycling.
[25] RegAsk.(2025). Algeria Adopts New Law to Strengthen Waste Management and Advance Circular Economy.
[26] National Waste Agency. (2026). Public system for the collection and recycling of packaging waste.
[27] Koricihi, K. (2026). Operationalizing Circular Economy Principles Through Integrated Digital Systems: An Analytical Assessment of Algeria's National Waste Agency Tools.; RegAsk.(2025). Algeria Adopts New Law to Strengthen Waste Management and Advance Circular Economy.
[28] APAB–Ministry of Environment meeting: EPR and the ECO-APAB producer responsibility organization — Algerian Beverage Producers Association (APAB), 25 June 2025.
[29] Circle Economy. (2022). Government of Algeria - Plastic bag levy: Finance law No. 19-14.
[30] Britacom. (2025). Profile - The People's Democratic Republic of Algeria.
[31] National Entrepreneurship Support and Development Agency. (2025). Financing Solutions.
[32] Gharbi. (2026). Analyzing the Evolution of the Recycling Sector in Algeria within the Circular Economy Framework: A Quantitative Analysis of National Waste Agency Data.
[33] Koricihi, K. (2026). Operationalizing Circular Economy Principles Through Integrated Digital Systems: An Analytical Assessment of Algeria's National Waste Agency Tools.

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Municipal governments are guided by a master plan for efficient waste management, and further training and financial stability are important to support higher adoption rates.

While the national government is responsible for setting the overarching legal frameworks and providing local authorities with technical support and guidance, municipal assemblies (APCs) are responsible for the day-to-day execution and waste management at the local level. To support APCs, the Master Plan for Municipal and Assimilated Waste Management (SDGDMA) serves as a strategic planning tool to organize municipal waste solutions. The SDGDMA has three objectives:

1. Assess existing collection, transport, and treatment methods, alongside costs and organizational structures.
2. Propose an Organizational Scheme to reorganize transport logistics and offer training programs.
3. Calculate the financial investments required to implement the plan.[34]

However, adoption remains low, with only 18% of the country's 1,541 municipalities approving their plans. Most plans are stalled by poor-quality studies, though a training program for consulting firms is underway through the National Conservatory for Environmental Training. Municipalities also lack funding for implementation; the household waste collection tax (TEOM) recovers only 55% of required funds.[35] Collection responsibility for the TEOM remains with tax receivers under the Directorate-General of Taxes, despite mandates to transfer collection and management to APCs, leaving municipalities with unstable funding.

The national government has introduced tax incentives to promote formalization of informal waste collectors. Ensuring its long-term effectiveness will be important to strengthening the recycling ecosystem.

Informal waste collectors play a key role in recovering plastic waste for recycling. To promote formalization among recyclable waste collectors, the incentive measures introduced provide informal waste sector workers with tax relief. Executive Decree No. 24-61 sets procedures for tax exemptions, encouraging informal collectors to apply for a Waste Collection License to operate legally and sell to formal recycling facilities with reduced environmental and social risks.[36] To obtain the license, informal waste sector workers must provide a copy of an agreement with at least one recycling and waste treatment operator to connect them to formal recyclers, rather than relying on informal middlemen. Upon obtaining the license, the tax exemption eliminates the cost of formalization as informal waste sector workers do not have to pay taxes for the first two years and get tiered discounts through year five. However, limitations remain, for example, the exemption applies only to individuals rather than legal entities, the six-year license duration does not align with the five-year tax exemption, and municipalities are excluded from the licensing process, which weakens local-level execution and oversight. Also, there are no post-control mechanisms to verify environmental compliance after tax exemptions are granted.

While recent investment laws aim to promote private sector investment, further streamlining the administrative process and ensuring policy consistency will help improve the investment climate.

In addition to waste management regulations, other policies affect the investment climate for plastic recycling. For example, Law 22-18, introduced in 2022 as Algeria's foundational investment law, removes the 51/49 ownership rule and opens production and service sectors (non-strategic sectors) to 100% foreign ownership without requiring local partners.[37] The law outlines investment incentives, including exemptions from custom duties and profit taxes, provided investments are registered with the Algerian Investment Promotion Agency (AAPI). The agency serves as the primary contact for investors and maintains a digital platform to streamline administrative processes.[38]

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[34] National Waste Agency. (2020). Report on the State of Waste Management in Algeria.
[35] National Waste Agency. (2020). Report on the State of Waste Management in Algeria.
[36] Mansour, M. (2024). Waste collection license in Algerian legislation - A reading of Executive Decree No. 24-61.
[37] LEX Africa. (2024). Navigating the Landscape of FDI in Algeria.
[38] Algerian Investment Promotion Agency (AAPI). (2026). The Algerian Agency for Investment Promotion.

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In 2026, revised investment laws introduced a clearance process to allow foreign investors to transfer capital, dividends, and capital gains. Investors must pay a 15% dividend withholding tax for non-residents, obtain a tax-clearance certificate, and provide bank documentation. These processes aim to replace opaque administrative approvals and shorten average repatriation times from eight to 11 months (recorded between 2021 and 2024) to approximately four to eight weeks.[39]

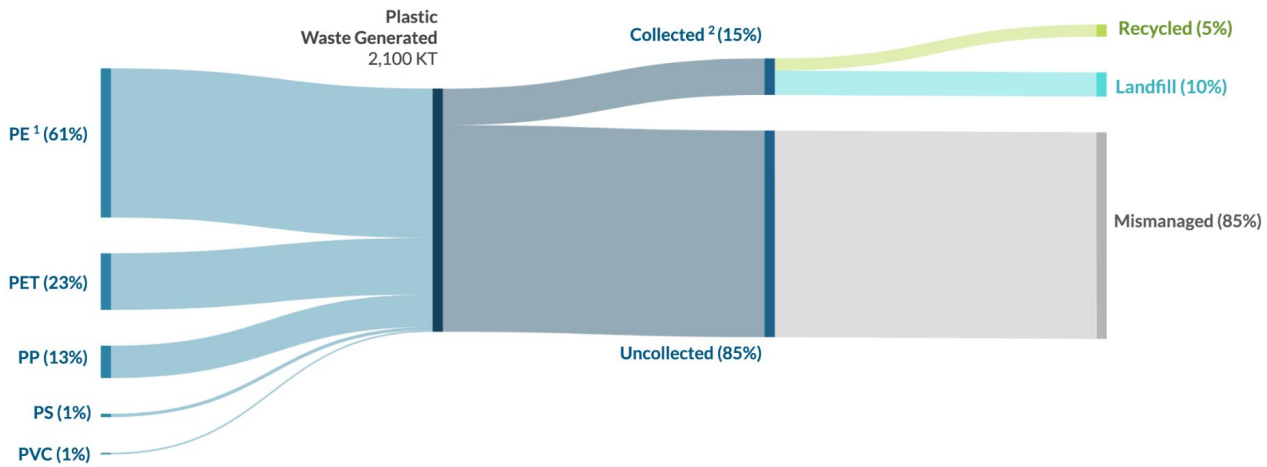
Although recent investment laws promote foreign investment, implementation risks remain high and thus foreign direct investment has not increased.[40] Frequent changes in economic policies have historically created instability, complicating long-term business planning. In addition, administrative procedures remain inefficient, and corruption concerns deter foreign direct investment. Transparency issues in the public sector led Algeria to score 34/100 on the Corruption Perceptions Index.[41] The business environment continues to be shaped by a state-dominated financial system and slow diversification, especially as Algeria's economy remains reliant on oil and gas. Strict capital controls and foreign exchange repatriation limits remain barriers for foreign investors.

State of Plastic Waste and Waste Management

Algeria generated roughly 2.1 million tonnes of plastic waste in 2020, of which 5% was recycled and the rest mismanaged or disposed of in landfills.

Plastic waste makes up 15% of MSW.[42] Polyethylene (PE) accounts for over half (53%) of plastic waste, followed by polyethylene terephthalate (PET) and polypropylene (PP) (Figure 1). Based on the UN Trade and Development (UNCTAD) data hub, Algeria imported 4,000 tonnes and exported 30,000 tonnes of plastic waste in 2024.[43] Roughly 5% of plastic waste is recycled, 85% is mismanaged, and 10% goes to Class 2 technical landfill centers (CETs) or controlled dumps.

FIGURE 1. ALGERIA'S PLASTIC WASTE FLOW



NOTES: [1] PE includes 53% plastic bags, 6% HDPE and 2% LDPE. The plastic bags are assumed to all be PE. [2] The proportion of collected plastic waste is based on the National Waste Agency's reported percentage of recovered plastic waste, which includes plastics recovered from class 2 CETs, controlled dumps and the industrial sector.

SOURCES: National Waste Agency (2020), Center for Research in Applied Economics for Development (CREAD) through Horizons (2024)

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[39] Hamza, Z. and Almi, H. (2025). Navigating Algeria's Investment Landscape: Opportunities And Challenges In Foreign Direct Investment; Global Law Experts. (2026). Algeria 2026, What the New Investment & Finance Laws Mean for Foreign Investors,
[40] Allianz. (2026). Country Risk Report - Algeria.
[41] Transparency International. (2025). Corruption Perceptions Index.
[42] National Waste Information System. (n.d.). National Waste Information System.
[42] UN Trade and Development. (2024). Data Hub.

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Collection and Sorting

The informal sector is mainly responsible for plastic waste recovered for recycling.

The waste collection rate ranges from 67% of waste generated in rural areas to 87% of waste generated in urban areas.[44] The formal waste collection system involves APCs, public entities managed by local authorities (EPICs) handling daily collection and landfills, and contracted private operators. However, collection service quality remains low. The public waste management system faces fleet equipment issues, logistical strain, and inefficient disposal routes.[45] Municipal contracts with private operators often use flat rates rather than real costs, resulting in expenses municipalities struggle to cover.[46]

The informal sector plays a central role in recovering plastic waste from mixed streams and dumpsites to supply recyclers. Most plastic waste enters mixed waste streams despite informal recovery efforts. Mechanical sorting centers inside public CETs operate at a low efficiency rate of 19%.[47] As such, plastic recovered from mixed MSW is often low quality by the time it reaches recyclers. Inefficient collection and the absence of source segregation increase recycling costs and limit the supply of feedstock suitable for high-value applications.

Recycling and Processing

Algeria's limited processing capacity is primarily located in the north.

Recyclers in Algeria include formal and informal operators, though boundaries are blurred as formal operators may have informal practices.[48] The National Waste Agency lists 358 PET, 343 HDPE, and 336 plastic film recyclers and recovery operators in its database.[49] Sorting and baling facilities have an average capacity of 5,475 tonnes per year (10 to 20 tonnes per day), while recyclers with granulators average 1,300 tonnes per year (2 to 5 tonnes per day).[50] Approximately 85% of these facilities are concentrated in northern Algeria, which has higher plastic waste generation than the southern region.

Recyclers are faced with operational challenges due to land costs and intermittent utility access.

High population density and land costs in the northern part of the country make land availability a challenge for recyclers. Since plastics have a low weight-to-volume ratio, transport economics are sensitive to distance, and relocating to other parts of the country where land is cheaper would result in higher transport costs.[51] Additionally, unreliable access to utilities affects operations, for example, limited water access in certain regions constrains washing and processing activities.

Recyclers looking to expand are not able to tap into traditional financing sources, signaling an opportunity for innovative and catalytic financing.

Recyclers cite high interest rates and limited capital for equipment as barriers to growth. The government offers tax exemptions and interest-free loans for recycling equipment through NESDA programs.[52] However, where such funding is available, it is insufficient to scale operations, or the strict guarantee requirements from traditional financing facilities are difficult for small and medium enterprises to fulfill.[53]

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[44] National Waste Agency. (2020). Report on the State of Waste Management in Algeria.
[45] National Waste Agency. (2020). Report on the State of Waste Management in Algeria.
[46] National Waste Agency. (2020). Report on the State of Waste Management in Algeria.
[47] National Waste Agency. (2020). Report on the State of Waste Management in Algeria.
[48] Naima, G. (2020). Waste recycling business in Algeria –opportunities and challenges for SME.
[49] National Waste Agency. (2019/2020). Plastic waste in Algeria. Note: Granulator is the French industrial terminology for pelletizer.
[50] National Waste Agency. (2020). Report on the State of Waste Management in Algeria.
[51] Hamza, Z. and Almi, H. (2025). Navigating Algeria's Investment Landscape: Opportunities And Challenges In Foreign Direct Investment.
[52] National Entrepreneurship Support and Development Agency. (2025). Financing Solutions.
[53] Gharbi. (2026). Analyzing the Evolution of the Recycling Sector in Algeria within the Circular Economy Framework: A Quantitative Analysis of National Waste Agency Data.

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Furthermore, as formal operations require significant capital investment in environmental standards and regulatory compliance, compliant recyclers face compressed margins when competing alongside informal recyclers.

End Markets for Recycled Plastics

Demand for recycled plastics is driven by domestic consumption and remains tied to volatile market prices.

Recyclers interviewed sell recycled plastics to beverage factories, household and kitchenware manufacturers, polyvinyl chloride (PVC) construction duct producers, and equipment suppliers. Recycled HDPE and low-density polyethylene (LDPE) films are used in plastic bags and packaging materials, while recycled PP and HDPE are used for agricultural crates and clothespins.[54] The recyclers interviewed noted strong domestic market demand and high profitability potential if operational scale can be achieved. Although annual demand is projected to grow by 8% to 12%, particularly in agriculture and construction, driven by the government's promotion of sorting and recycling activities within SNGID-2035 and newly enacted EPR regulations, actual expansion remains constrained.[55] Short-term demand remains exposed to volatile pricing tied to global crude oil and raw polymer imports. Furthermore, without fully operational EPR enforcement or mandatory recycled content targets, actual demand may lag behind projections, leaving long-term demand growth highly uncertain.

Investment Landscape

To map the current investment landscape, we evaluated both public and private funding (Table 1). While government spending covers 95% of waste management costs, it focuses strictly on landfills and waste disposals, rather than recycling.[56] As the plastic waste that is formally collected ends up as mixed waste, commercial recyclers have to either absorb high pre-processing and washing costs or rely on informal supply chains to extract material from dumpsites. Contributions from ODA, DFIs, and private investors remain minimal. There was only one disclosed private deal between 2018 and 2025.

Across Algeria's circular economy landscape, funding remains sharply divided between micro-grant allocations and large-scale public budgets, leaving a severe "missing middle" capital gap for growth-stage recyclers requiring US$ 1 million to US$ 5 million to expand processing infrastructure. Meanwhile, development assistance and philanthropic flows remain predominantly focused on upstream technical studies, policy formulation, and municipal planning rather than directly de-risking commercial investment. Compounding these dynamics, traditional commercial banking institutions maintain a conservative stance toward recycling assets due to perceived operational risks, unhedged foreign exchange exposure, and a lack of recognized collateral, severely limiting debt availability for local processors.

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[54] National Waste Agency. (2020). Report on the State of Waste Management in Algeria.
[55] Mawad-DZ Materials. (2026). Recycled plastic in Algeria: RPET, recycled HDPE, market and suppliers (2026).
[56] Climate Project Explorer. (2023). AIM-WELL: Algeria Integrated Management of Waste Energy at the Local Level.

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TABLE 1. OVERVIEW OF INVESTMENT SOURCES FOR PLASTICS CIRCULARITY AND WASTE MANAGEMENT IN ALGERIA

Funding Source	Total Funding Amount (US$ mn)	Data Period	Annual Average (US$ mn)
Government Spending	440	Per year	440
Official Development Assistance[57]	2.3	2018 to 2024	0.33
Development Finance[58]	0.95	2018 to 2025	0.12
Private Sector[59]	0.07	2018 to 2025	0.009

Government Spending

According to the National Waste Agency, managing MSW costs an estimated US$ 440 million (DZD 58 billion) annually.[60] Public investments focus heavily on waste collection, road networks, and landfill construction, while source segregation and recycling facilities remain secondary in public budgets. Additionally, municipalities recover only a fraction of the TEOM. Revenue from TEOM totaled US$ 4.5 million (DZD 0.6 billion) between 2019 and 2021, covering less than 1% of municipal costs. If fully collected, TEOM revenue could reach US$ 240 million annually, covering 55% of waste management costs.[61] World Bank benchmarks suggest a comprehensive waste management system requires public expenditure of 0.3% to 0.5% of GDP.[62] For Algeria's 2025 GDP of US$ 287 billion, target public spending would be approximately US$ 1.15 billion, significantly higher than current levels.

Official Development Assistance

US$ 2.3 million in ODA was committed to waste management projects in Algeria between 2018 and 2024.[63] Most funding consisted of grants for solid waste management, circular economy initiatives, and capacity building. Primary donor countries include Germany, Spain, and France.

Development Finance

According to our research, there were only two waste management projects funded by DFIs between 2018 and 2025. Through the Urban Projects Finance Initiative (UPFI), the European Investment Bank (EIB) and Agence Française de Développement (AFD)/Proparco provided US$ 0.35 million in technical assistance to hold collaborative workshops and identify sector investment opportunities.[64] The other project is African Development Bank's (AfDB's) Green Growth Investment Program component focused on regulatory frameworks, capacity building, and investment identification in recycling and composting.[65]

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[57] Figures refer to land-based ODA and reflect commitment amounts.
[58] Figures originate only from projects solely focused on solid waste management and plastics circularity, whose recipients are not private companies, and reflect commitment amounts. Multi-sector projects and multi-country projects are excluded due to the lack of clear funding delineation.
[59] Value is derived only from disclosed deals. While the online PCIT only features values from 2018 to 2024 at the time of writing, we updated the data to include additional deals from 2025 for the five countries.
[60] National Waste Agency. (2020). Report on the State of Waste Management in Algeria.
[61] National Waste Agency. (2020). Report on the State of Waste Management in Algeria.
[62] World Bank. (2026). What a Waste 3.0: Global Snapshot of Solid Waste Management toward Circularity until 2050.
[63] OECD. (2024). Data platform on development finance for the sustainable ocean economy.
[64] EIB. (2021/ 2022). Series of collaborative workshops on improving solid waste management in Algeria.
[65] AFDB. (2020). African Development Bank takes steps to accelerate the circular economy in Africa.

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Private Sector Investments

There was one private investment deal in plastics circularity between 2018 and 2025: a US$ 70,000 venture capital investment in 2023 for Revadex, an office waste recycling company.[66]

Opportunities and Recommendations

While heavy state subsidies, unsorted waste streams, high bank interest rates, utility cuts, and central bank foreign exchange limits make it challenging for private investors to play a role, DFIs and philanthropic funders possess the mandate and financial tools to absorb early-stage risk. By pairing specific capital instruments with targeted operational gaps, DFIs and donors can de-risk the value chain and build the foundation required to bring in commercial investment at scale.

In our interviews, value chain actors cited key priorities across each value chain stage and the enabling environment. We matched these priorities with suitable catalytic capital mechanisms that can help de-risk and unlock private investment.

Collection and Sorting

- Direct public infrastructure funding, grant capital, and public-private partnership capital aligned with SNGID 2035 targets can fund regional transfer depots equipped with commercial balers, industrial shredders, and weight-tracking systems outside major cities, as well as selective sorting centers at Class 2 CETs. Absorbing upfront equipment costs through grants allows hubs to pack material on site, drastically reducing transport costs and securing a clean material supply for recyclers without relying on private recyclers to fund municipal waste collection.
- Deploy low-cost digital verification tools, such as digital weighing and contamination testing software at aggregation points, funded through technical assistance grants. This establishes supply chain traceability and audited operating histories without imposing heavy administrative costs or prohibitive overheads on small-scale collectors.
- Set up co-financing mechanisms to engage private actors in waste recovery and sorting (e.g., AIM-WELL project).

Recycling and Processing

- Direct low-interest loans and donor matching grants toward essential factory infrastructure to mitigate unreliable water and power access. Co-financing off-grid solar-diesel hybrid systems, commercial grid transformers, industrial water treatment units, hot-wash lines, and automated optical sorters (for color and polymer separation) reduces daily operating expenses, allowing processing plants to run at full capacity and produce clean plastic pellets that compete with imported raw plastic.
- Support recyclers to install dedicated storage spaces to manage raw materials and finished products.

[66] The Plastics Circularity Investment Tracker tracks disclosed deals where the source of funds is clearly delineated as coming from third parties. Internal company projects (e.g. El Kadr's PP and HDPE recycling plant investment) are not included unless there is a clear indication that the project funding comes from a third party.

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Enabling Environment

- Provide grants and technical assistance to support the Ministry of Environment and local municipal assemblies in drafting operational guidelines for Law 25-02 and modernizing TEOM tax collection mechanisms. Operationalizing the Eco-Jem packaging take-back system establishes predictable, long-term fee distributions for local recyclers and reduces investment risk caused by regulatory gaps.
- Expand fiscal support and grant funding to organize informal waste pickers, lower compliance overhead, and streamline registration with the National Waste Information System (SNID). Grant funding can support community organizations and legal advisors to help informal waste pickers obtain licenses and sign formal off-take agreements with licensed recyclers, giving waste pickers access to producer funds while providing buyers with ethically sourced supply lines.
- Implement price regulation and market stabilization to prevent volatile raw material cost swings.
- Deploy DFI credit guarantees and political risk insurance to de-risk co-investments in large-scale waste infrastructure, alongside funding specialized transaction advisors to help national authorities build structured, bankable public-private partnerships.

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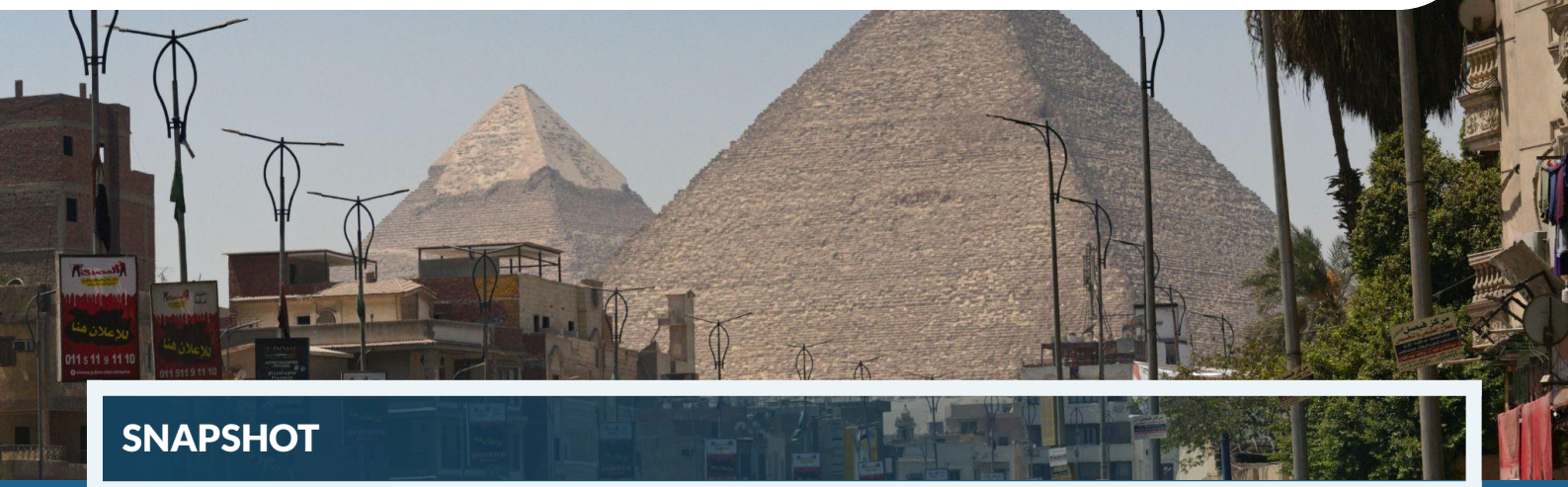
Country Deep Dive: Egypt



SNAPSHOT

PLASTIC WASTE GENERATED

2.5 million tonnes

(ACEN Egypt's Circular Economy Strategy and Action Plan, 2023 data)

COMPOSITION OF PLASTIC WASTE

- **PE: 73%**
- **PET: 13%**
- **PP: 5%**
- **Other plastics: 9%**

(UNIDO, 2024)



END OF LIFE FATES OF PLASTIC WASTE



Recycled

30%

(UNIDO, 2024)

Reused

5%

(UNIDO, 2024)

Mismanaged/Incinerated

65%

(UNIDO, 2024)

PRIVATE INVESTMENTS IN PLASTICS CIRCULARITY (2018 TO 2025)

# of deals:	US$ of deals:
62	**36 million**

Top three investment archetypes:
Recycling (95% of total US$ investments),
Operational Platforms (4%),
Recovery (0.3%)

KEY POLICIES GOVERNING PLASTIC WASTE

- **Law on Waste Management / Law No. 202 of 2020** (restricts single-use plastics (SUPs) and authorizes economic incentives for producers and eco-friendly alternatives, and introduces EPR principles)
- **Green Label System for Plastic Products / Article 52 of Law No. 202** (defines design requirements for recyclability)
- **Prime Ministerial Decree No. 662/2025** (mandates EPR regulations targeting single-use plastic bags)
- **Article 3 of Law No. 67 of 2016** (reduced tax rate of 5% for machinery and equipment used for production or services, including recycling, compared to the standard 14% rate)

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Egypt is the most populous country in North Africa, with 118 million residents in 2025 and annual population growth of 1.6%.[67] Economic reforms, including tax adjustments and infrastructure upgrades, helped GDP reach US$ 365 billion in 2025, reflecting an average annual growth rate of 4.4% over the prior decade.[68] Key growth sectors include services, tourism, finance, trade, and manufacturing. However, the country's economy is exposed to high inflation, public debt servicing, currency devaluations, and foreign exchange shortages. While Investment Law No. 72 provides protections for foreign capital,[69] structural challenges and external geopolitical shocks persist.[70]

Key highlights from our assessment of Egypt's regulatory landscape, state of plastic waste and waste management, and investment landscape include:



- The current EPR framework covers certain single-use plastic bags, but no other packaging formats.
- Effective policy implementation is hindered by inconsistent enforcement and overlapping jurisdictional oversight.



- Formal waste collection coverage ranges from 40% to 85% in urban areas and 35% in rural areas. The informal sector fills the collection gap, especially in Greater Cairo and Alexandria where informal waste collectors are highly organized.
- Plastics recycling takes place primarily through informal networks and is carried out mostly by small-scale operators with basic processes.
- Demand for recycled plastics is driven more by lower-end applications, but is expected to grow with global regulations.



- Private investment in recycling solutions was heavily skewed by a single transaction.
- Targeted commercial opportunities exist in scaling food-grade processing and formalizing informal supply chains, provided currency and credit constraints are managed.

[67] World Bank. (2025). Population, total - Egypt, Arab Rep.
[68] World Bank. (2025). GDP growth (annual %) - Egypt, Arab Rep.
[69] Youssry Saleh & Partners. (2025). Key Risks of Doing Business in Egypt: What Foreign Companies Should Know.; OECD. (2026). FDI Qualities Review of Egypt.
[70] World Bank. (2026). Egypt.

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PIONEERING COMPANY IN THE SPOTLIGHT:

Nile Recycling Company's Food-Grade rPET Facility in Egypt's Suez Canal Economic Zone

Nile Recycling Company was launched based on an initial agreement and investment of US$ 20 million to establish a recycling facility over an area of 12,000 square meters. The facility recycles PET bottles into rPET suitable for food-grade applications. Subsequently, the company invested an additional US$ 15 million to expand the facility by another 10,000 square meters, with an annual recycling capacity of 20,000 tonnes of processed plastic waste. The facility is located within the Sokhna Integrated Industrial Zone, which is managed by the SCZONE. The SCZONE, which offers tax incentives in terms of customs exemptions and VAT exemptions, continues to attract high-quality investments aligned with Egypt's transition toward a circular economy. The establishment of the PET recycling facility reflects the SCZONE's commitment to supporting the green economy and promoting sustainability.

The project will allocate 70% of its output for export to international markets, with the remaining 30% for the local market. This planned output would support the national goal of increasing industrial exports and enhance the added value of Egyptian recycled products. The project's export-focused model indicates that, given Egypt's strategic location and a free trade zone agreement with the European Union, Egypt can tap into the strong demand for recycled plastics from these international markets if it can effectively scale up its recycling capacity, especially for closed-loop or food-grade recycling.

SOURCE:

SCZONE. (2025). With an Additional Investment of $15 million, SCZONE Chairman Witnesses the Signing of the Expansion Contract for the Nile Plastic Recycling Company Project.

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Regulatory Landscape

Egypt has integrated circular economy principles into its national regulatory frameworks, particularly through the Law on Waste Management (Law No. 202 of 2020) and tax incentives for green businesses and recycling.

Law No. 202 of 2020 established the legal framework for integrated waste management in Egypt, aiming to reduce waste generation and regulate disposal, treatment, and recycling. The law restricts SUPs and authorizes economic incentives for producers of eco-friendly alternatives.[71] The Waste Management Regulatory Authority (WMRA) was created to oversee implementation and encourage private sector participation across collection, sorting, transport, and recycling.[72] Article 52 outlines a Green Label System for Plastic Products to define design requirements by polymer type to support recycling quality.[73]

Under Article 3 of Law No. 67 of 2016, machinery and equipment used for production or services, including recycling, benefit from a reduced tax rate of 5%, compared to the standard 14% rate.[74] The law also provides tax exemptions for materials recovered through recycling. Stakeholder consultations indicate that public support mechanisms focus on tax reductions and industrial zone access rather than direct liquidity. The Central Bank offers the "Evolute Fund," providing green loans at 3% to 5% interest rates over 10 years for machinery procurement across chemical and industrial sectors. However, commercial bank financing remains constrained by strict lending limits and a lack of specialized underwriting frameworks for recycling assets. As a result, Egyptian recyclers rely on short-term trade credit and Murabaha[75] structures to manage cash flow. Furthermore, currency fluctuations and limited US$ availability restrict imports of foreign processing machinery.[76]

Current EPR regulations focus solely on single-use plastic bags.

Under Prime Ministerial Decree No. 662/2025, producers and importers of single-use plastic bags must comply with quality standard 3050/2022 and pay a disposal fee of approximately US$ 0.80 per kilogram, managed by WMRA.[77] EPR does not cover other plastic packaging formats. Law 202 has encouraged investment in food-grade rPET facilities, such as Nile Recycling Company, and voluntary corporate EPR models like DORNA.[78]

Effective policy implementation is hindered by inconsistent enforcement and overlapping jurisdictional oversight.

Responsibility for waste management is divided among multiple ministries, governorates or state governments, and national agencies. Policy formulation is fragmented, whereby the Ministry of Industry supports local manufacturing without tracking lifecycle circularity, while the Ministry of Environment and WMRA focus on landfills, licensing, and waste outputs. Unclear jurisdictional boundaries create enforcement gaps, such as unmanaged waste accumulation in irrigation canals. While Law 202 aims to align institutional roles, standard operating procedures across governorates have yet to be fully established, creating administrative complexity for investors.

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[71] UNEP. (2020). Waste Management Law No.202 of 2020.
[72] Switch to Green. (2024). Moving towards circularity Egypt's path.
[73] State Information Service. (2024). Egypt launches projects to develop guidelines for 'Green Label for Plastic Products'.
[74] Egyptian Tax Authority. (2024). Law No. 67 of 2016.
[75] The Murabaha transaction model refers to a Sharia-compliant agreement whereby a financial institution purchases a physical asset requested by the customer and resells it to them at a marked-up price. This model is used by Egyptian recycling factories that face cash-flow constraints. An example is a recycler interviewed who uses this financing model to secure funding for specific, guaranteed trade transactions, paying suppliers upfront to fulfill a confirmed factory order. The profits are then distributed to the shareholders involved in that specific project.
[76] UNIDO. (2024). Study On Plastic Value Chain In Egypt.
[77] Lexology (2026)
[78] DORNA is Nestle Egypt's initiative to collect and recycle plastic packaging waste by incentivizing waste collectors in the informal sector to boost their collection capacity and ensure larger quantities reach PET processors. Nestle-MENA. (2020). Nestlé Egypt DORNA Initiative to Boost the Recycling of plastic.

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Egypt's foreign investment protections provide a strong foundation, with the potential to improve with streamlined administrative processes and progress in economic reforms.

In addition to the above regulations governing the management of plastic waste, there are other regulations that affect the country's investment climate, including foreign investments in the plastic waste management and recycling sector. Investment Law No. 72 of 2017 (the Law of Investment Guarantees and Incentives) is key for attracting foreign and domestic direct investment.[79] The General Authority for Investment and Free Zones (GAFI) is the primary regulatory body overseeing the investment framework and operates the Investor Service Center to centralize the investment process. There are no general restrictions on repatriation of profits or currency conversion for investors, though profit repatriation requires documentation approved by commercial banks and the Tax Authority.[80] A foreign branch is allowed to charge up to 10% of its profit as a "head office charge," and profits that are not remitted within 60 days after year-end may be deemed as dividends and subject to 10% withholding tax.[81] 100% foreign ownership is also allowed in most sectors, except in strategic sectors such as banking and insurance, media and telecom, agriculture, and real estate.[82]

However, key challenges include overlapping responsibilities among investment agencies, which create administrative friction for foreign capital.[83] High inflation, currency shortages, and public debt servicing strain domestic consumption and corporate investment.[84] Egypt also scored 30/100 on the 2025 Corruption Perceptions Index.[85] In addition, macroeconomic sensitivity to geopolitical shocks impacting key sectors, such as tourism, can constrain municipal infrastructure budgets.[86]

State of Plastic Waste and Waste Management

Egypt generated 2.5 million tonnes of plastic waste in 2023, of which 30% was recycled while 65% was disposed of in dumpsites or incinerated.

Egypt generates 18.4% of total plastic waste in Africa.[87] PE accounts for the largest share of generated waste, followed by PET and PP (Figure 2). Based on UNCTAD data, Egypt imported 32,000 tonnes and exported 1,000 tonnes of plastic waste in 2024.[88] Recycled plastic is primarily recovered by informal collectors, while the remainder is disposed of in dumpsites or incinerated. Commercial waste-to-energy facilities do not currently operate at scale, though policies encourage refuse-derived fuel (RDF) utilization in the cement industry.[89]

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[79] Youssry Saleh & Partners. (2025). Key Risks of Doing Business in Egypt: What Foreign Companies Should Know.
[80] Youssry Saleh & Partners. (2025). Key Risks of Doing Business in Egypt: What Foreign Companies Should Know.
[81] BYLaw. (2025). Corporate Taxation in Egypt: A Guide for Foreign Investors.
[82] BYLaw. (2025). Corporate Taxation in Egypt: A Guide for Foreign Investors.
[83] OECD. (2026). FDI Qualities Review of Egypt.
[84] Switch to Green. (2024). Moving towards circularity Egypt's path.
[85] Transparency International. (2025). Corruption Perceptions Index.
[86] Allianz. (2026). Country Risk Report - Egypt.
[87] Dennison et. al. (2025). Addressing Plastic Waste Challenges in Africa: The Potential of Pyrolysis for Waste-to-Energy Conversion.
[88] UN Trade and Development. (2024). Data Hub.
[89] UNIDO. (2024). Study On Plastic Value Chain In Egypt.

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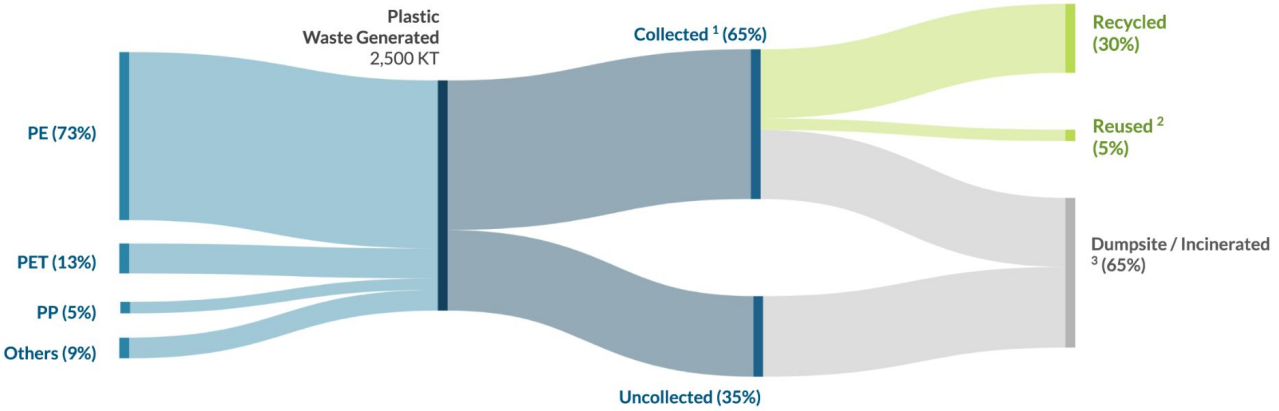
FIGURE 2. EGYPT'S PLASTIC WASTE FLOW



NOTES:

[1] Assumed to be plastic waste collected for recycling based on the reported 65% recycling rate in the ACEN report.

[2] Reused, based on UNIDO analysis, refers to plastic waste that is diverted from disposal pathways and directly returned to end-users or the plastic industry.

[3] Estimated based on a UNIDO breakdown of plastic waste that goes to dumpsites and is incinerated. Since the breakdown of plastic waste collected that ends up in dumpsites or incinerated is unclear, these flows were merged.

SOURCES:

ACEN Egypt's Circular Economy Strategy and Action Plan (2023 data), with plastic waste composition estimated from the average of plastic waste composition in urban and rural areas normalized to 100%, and mismanaged/ incinerated estimates from UNIDO (2024).

Collection and Sorting

The informal sector is mainly responsible for waste collection.

Based on our interviews with the Ministry of Environment, formal MSW collection services cover 55% of the population, which is below the lower-middle-income country average of 61%.[90] Formal waste collection coverage ranges from 40% to 85% in urban areas, compared to 35% in rural areas.

Informal networks fill this coverage gap, particularly in Greater Cairo and Alexandria. Parts of the informal sector are organized, such as in Greater Cairo, where the informal Zabbaleen network provides door-to-door collection and manual sorting. In contrast, informal collectors (Nabasheen) in rural areas operate independently.[91] Most informal workers rely on manual tools and basic crushing equipment, limiting operational scale. UNIDO analysis indicates that informal collectors supply 60% of feedstock to recycling facilities, with the remainder coming from formal collectors, commercial buildings, and households.[92]

To better support the informal sector, the government is required under Law 202 of 2020 to review contracts between waste enterprises and informal subcontractors to ensure they are getting fair compensation and social protections.[93] WMRA has also mapped informal collection networks to support formalization incentives, while the Federation of Egyptian Industries (FEI) has established a specific division for waste management under the Chamber of Chemical Industries to assist collectors with business registration, tax identification, and environmental approvals.

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[90] World Bank. (2026). What a Waste 3.0: Global Snapshot of Solid Waste Management toward Circularity until 2050
[91] Fairville Labs. (2025). Visit to Giza Fairville lab in Mansheyat Dahshour & Inter-lab exchange on environment and waste issue.
[92] UNIDO. (2024). Study On Plastic Value Chain In Egypt.
[93] Economist Impact. (2021). Coming To Grips With Plastic: Egypt's Waste Management Challenge.

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Recycling and Processing

Plastics recycling takes place primarily through the informal Zabbaleen community, whose members are mostly small-scale operators with basic processes.

The informal Zabbaleen community recycles up to 80% of the waste they collect.[94] Over 700 recyclers are registered with the Federation of Egyptian Industries (FEI), and most are small operators with basic crushers or pelletizers rather than industrial facilities.[95] Most of these processors operate with outdated machinery, which limits processing efficiency and output quality, making it difficult to meet quality standards required by multinational buyers.[96] There are only a few large-scale processors, such as Nile Recycling Company and Bariq.[97]

Recyclers' operating margins are affected by high sorting and cleaning costs and compliance costs from overlapping ministerial mandates.

Lack of source segregation results in contaminated feedstock, which can damage machinery and lower output quality. High manual sorting and cleaning costs further reduce operating margins.

Recyclers must navigate multiple regulatory licenses across ministries. Facilities that collect, sort, and bale are classified as "transformation" under WMRA oversight, whereas plants converting plastic into finished goods are classified as "production" under the Ministry of Industry. Managing dual compliance pathways increases operational overhead. Additionally, waste transport involves concurrent oversight from the Traffic Authority, Ministry of Environment, Interior Ministry, and local municipalities, resulting in administrative delays and variable road fees.

End Markets for Recycled Plastics

Demand for recycled plastics is driven by lower-end applications, though this is expected to grow with global regulations.

Recycled plastics are primarily used in low-end products such as bags, hoses, and piping.[98] Domestic demand for food-grade recycled packaging remains limited by consumer safety perceptions. Consequently, high-quality material such as food-grade rPET is mostly exported.[99] Commercial pathways for LDPE film remain limited, though startups like TileGreen convert mixed plastic waste into composite building tiles.

Egypt produces 20% of Africa's total plastic output, with domestic plastics demand growing at 10% annually.[100] Imported virgin polymers account for 65% to 75% of domestic manufacturing inputs.[101] Secondary plastics represent 19% of total plastic production volume.[102] Enforcement of the Green Label System and international frameworks, such as the EU PPWR, is expected to drive off-take demand among exporters.

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[94] Economist Impact. (2021). Coming To Grips With Plastic: Egypt's Waste Management Challenge.
[95] UNIDO. (2024). Study On Plastic Value Chain In Egypt.
[96] ACEN. (2025). Egypt's Circular Economy Strategy and Action Plan.
[97] ACEN. (2025). Egypt's Circular Economy Strategy and Action Plan.
[98] UNIDO. (2024). Study On Plastic Value Chain In Egypt.
[99] UNIDO. (2024). Study On Plastic Value Chain In Egypt.
[100] Invest in Egypt. (2025). Summary of a Preliminary Feasibility Study on Manufacturing Plastic Pipes.; Egyptian Street. (2024). Egypt's Plastic Production Industry Is Growing Fast, But So Is Recycling.
[101] ACEN. (2025). Egypt's Circular Economy Strategy and Action Plan
[102] ACEN. (2025). Egypt's Circular Economy Strategy and Action Plan

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Investment Landscape

As noted in Table 2, private sector investments amounted to US$ 36 million between 2018 and 2025, going mainly to recycling. One transaction of US$ 31 million makes up the majority of this total. Public spending on waste management of US$ 500 million between 2019 and 2025 is insufficient relative to the US$ 1.5 billion required for a comprehensive waste management system. Egypt recorded one of the highest total committed amounts of ODA and DFI funding across the five countries in this assessment.

Aside from one large acquisition deal, capital deployment is dominated by early-stage seed grants under US$ 500,000, leaving mid-scale recyclers without growth equity to bridge the gap to industrial scale. While ODA and development finance remain key anchors in Egypt, commitments went mainly toward institutional capacity building, policy frameworks such as the National Solid Waste Management Programme (NSWMP) and MSW infrastructure. In addition, high interest rates, foreign currency illiquidity, and strict bank lending limits restrict commercial bank loan financing, forcing local operators to rely on short-term trade credit or corporate self-financing for capital upgrades.

TABLE 2. OVERVIEW OF INVESTMENT SOURCES INTO PLASTICS CIRCULARITY AND WASTE MANAGEMENT IN EGYPT

Funding Source	Total Funding Amount (US$ mn)	Data Period	Annual Average (US$ mn)
Government Spending	500	2019 to 2025	71
Official Development Assistance[103]	38	2018 to 2024	5.4
Development Finance[104]	80	2018 to 2025	10
Private Sector[105]	36	2018 to 2025	4.5

Government Spending

Based on our interview with a representative from the WMRA, the government has spent US$ 500 million (EGP 25 billion) on waste management infrastructure since 2019, including an allocation of US$ 55 million (EGP 2.8 billion) for the financial year 2025/2026. However, public expenditure remains far below what is needed for a functional system. The World Bank estimates that a functional waste management system requires public expenditure of 0.3% to 0.5% of a nation's GDP.[106] With Egypt's GDP of US$ 365 billion in 2025, that equates to about US$ 1.5 billion of public expenditure that Egypt should spend on waste management. Our interviews revealed that local governorates, which play a shared role in waste management, often face difficulties in charging fees for household waste collection, and as a result, there are insufficient funds to cover the costs of waste services.[107]

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[103] Figures refer to land-based ODA and reflect commitment amounts.
[104] Figures originate only from projects solely focused on solid waste management and plastics circularity, whose recipients are not private companies, and reflect commitment amounts. Multi-sector projects and multi-country projects are excluded due to the lack of clear funding delineation. The figure reflected is based on 70% of the EUR 71.9 million in funding provided by international funding institutions, including the European Union, the German Ministry for Economic Cooperation and Development (BMZ), through the German Bank for Reconstruction (KfW) and GIZ, and the State Secretariat for Economic Affairs, as well as a further EUR 20 million grant signed for Phase III of the project by Egypt''s Central Bank, Ministry of Environment, and KfW.
[105] Value is derived only from disclosed deals. While the online PCIT only features values from 2018 to 2024 at the time of writing, we updated the data to include additional deals from 2025 for the five countries.
[106] World Bank. (2026). What a Waste 3.0: Global Snapshot of Solid Waste Management toward Circularity until 2050
[107] Economist Impact. (2021). Coming To Grips With Plastic: Egypt's Waste Management Challenge.

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Official Development Assistance

About US$ 38 million of ODA was committed between 2018 and 2024.[108] The majority of the ODA was provided as grants, and the main donors were Turkey and EU countries. Several of the projects relate to the NSWMP, which is intended to restructure the waste sector at the national, regional, and local levels and establish an independent national entity for waste management.[109] Another project entails creating a low-tech innovation hub for upcycling plastics through arts and local training.

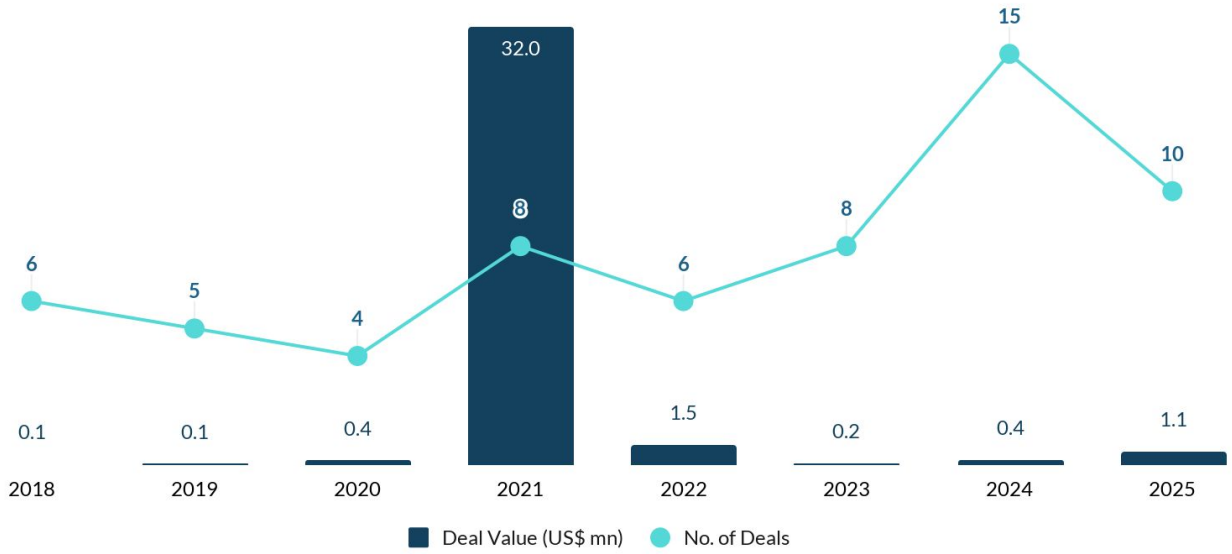
Development Finance

We identified four DFI-funded projects related to waste management in Egypt between 2018 and 2025. Of these projects, only one project is reflected in the development finance figure.[110] The project involves funding for the NSWMP, which is also reflected in the ODA data and is funded by the German Investment and Development Company (DEG – part of the German development bank KfW).[111] The NSWMP supports the implementation of the Law on Waste Management (Law No. 202 of 2020), providing policy support and effectively linking technical assistance with infrastructure financing.[112]

Private Sector Investments

There was a total of US$ 36 million invested across 62 private investment deals in plastics circularity between 2018 and 2025. The vast majority of this investment occurred in 2021 (Figure 3).

FIGURE 3. EGYPT: PRIVATE INVESTMENTS IN PLASTICS CIRCULARITY FROM 2018 TO 2025



NOTE:

Deals with undisclosed deal values are included in the deal count but excluded from deal value calculations.

SOURCE:

Plastics Circularity Investment Tracker.

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[108] OECD. (2024). Data platform on development finance for the sustainable ocean economy.
[109] National Solid Waste Management Programme. (2025). About Us.
[110] There is another DFI-funded project solely focused on solid waste management: a loan from the European Bank for Reconstruction and Development (EBRD) to BariQ, which is captured in the private investment category. EBRD. (n.d.). EBRD and EU support Egyptian plastic recycling industry.
[111] National Solid Waste Management Programme. (2025). About Us.; State Information Service. (2025). Egypt secures €294.5M partnership package with Germany.
[112] Switch to Green. (2024). Moving towards circularity Egypt's path.

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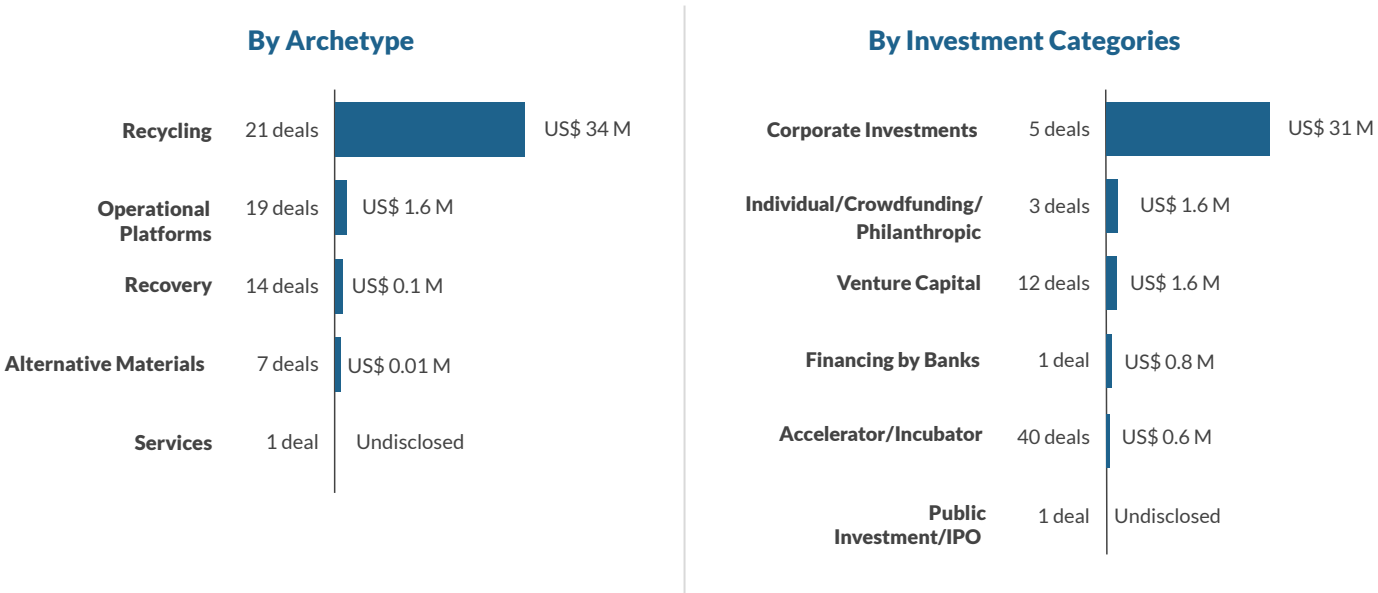
Recycling solutions were the recipients of 95% of total investments, a figure skewed by a US$ 31 million acquisition of Bariq, a PET recycler, by Intro Group in 2021.[113] Bariq also recorded a US$ 750,000 loan from EBRD's Green Economy Financing Facility (GEFF) to purchase wet granulators, which shred bottles into flakes.[114] Excluding the US$ 31 million outlier, total private investments would have amounted to about US$4.5 million across 61 deals, equating to an average of US$ 74,000 per deal. Other deals related to recycling entailed waste-to-durables (bricks, roofing tiles, composites, boards, and doors) and reverse vending machines. One such deal involved Dawarha, which raised US$ 1.5 million to acquire and deploy 200 reverse vending machines.[115]

There were also investments in operational platforms, which comprised the second highest deal count and value (Figure 4). These include digital platforms or marketplaces for waste management such as Bekia, which focuses on inorganic waste, and Plstka, which allows exchange of solid trash, including plastic waste, for rewards in the form of discounts and coupons. Investments were also made in manufacturers of bio-based materials.

Regarding investment categories, corporate investments account for the majority of the total deal value (87%), and accelerators/incubators account for the majority of the deal count (65%) (Figure 4). Accelerators are the most active investors in terms of deal volume, but ticket sizes are clustered below US$ 500,000 (Figure 5). Grants in the form of individual/crowdfunding/philanthropic funding went toward recycling solutions. The equity-based accelerator/incubator disclosed deals went mainly toward operational platforms, while venture capital deals went toward a mix of recovery solutions and operational platforms. In terms of debt financing, only one deal was recorded, namely, the previously mentioned loan to Bariq. The current state of investments shows that most recyclers are still in their early stages and lack the predictable cash flows needed to service fixed debts from commercial banks.

FIGURE 4. EGYPT: PRIVATE INVESTMENTS IN PLASTICS CIRCULARITY FROM 2018 TO 2025 BY ARCHETYPES AND INVESTMENT CATEGORIES



NOTE:

Deals with undisclosed deal values are included in the deal count but excluded from deal value calculations.

SOURCE:

Plastics Circularity Investment Tracker.

For definitions of the archetypes and investment categories, please refer to the Methodology document.

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[113] Raya Corporate. (2021). Our Track Record of Successful Exits.
[114] CSR Egypt. (2021). Egypt's BariQ for recycling plastic saves $ 1m annually, cuts CO2 emissions.
[115] Living Business. (2022). Dawarha's RVM collects 15,000 plastic bottles per month in Cairo.

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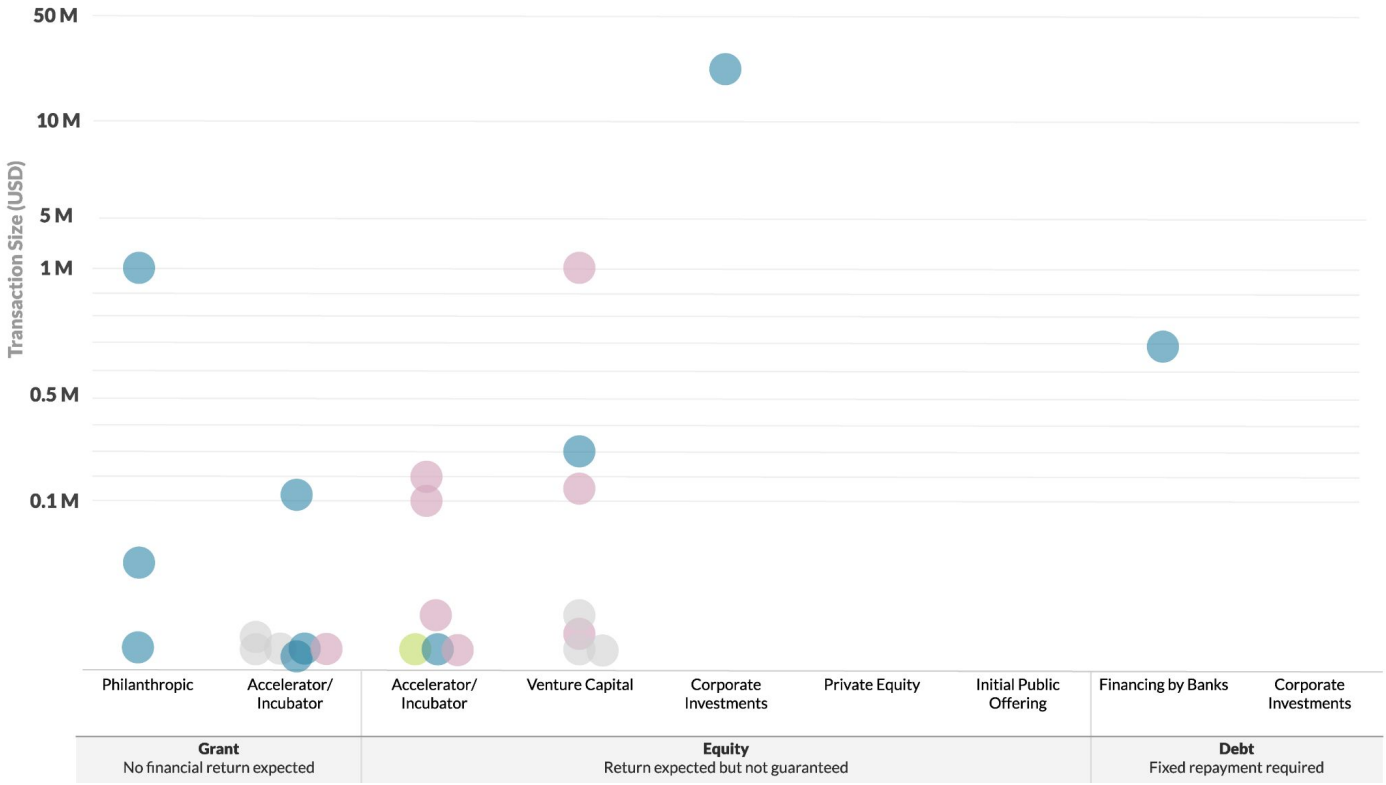
FIGURE 5. EGYPT: PRIVATE INVESTMENTS IN PLASTICS CIRCULARITY FROM 2018 TO 2025 BY INVESTMENT CATEGORIES (DISCLOSED DEALS ONLY)



LEGEND:

Alternative Materials · Operational Platforms · Recovery · Recycling

NOTE:

The deals presented here are based on disclosed deals.

ASSUMPTIONS:

- Accelerator/Incubator deals that are specified as grant, award/prize, or prize money are categorized as grants, whereas those that are specified as equity-based accelerators are categorized as equity. Those involving convertible debt are placed between the equity and debt categories.
- All Corporate Investments, including mergers/acquisitions, joint ventures, and buyouts, are categorized as equity, whereas Corporate Investments specified as grants are categorized as grants.
- All Financing by Banks and Individual/Crowdfunding/Philanthropic Investments are categorized as debt, except for convertible notes, which are categorized between the equity and debt categories.
- All Venture Capital, Private Equity, and Initial Public Offerings are categorized as equity.

SOURCE:

Plastics Circularity Investment Tracker.

For definitions of the archetypes and investment categories, please refer to the Methodology document.

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Opportunities and Recommendations

Structural barriers, including overlapping ministry jurisdictions, compliance overhead for formalization, strict bank lending limits, foreign currency shortages, and EPR regulations that narrowly focus on single-use plastic bags, make it challenging for private investors to play a role in Egypt's plastic recycling value chain. Catalytic finance, however, can be deployed to absorb early-stage risk and build the foundation required to bring in commercial investment at scale.

In our interviews, value chain actors cited key priorities across each value chain stage and the enabling environment. We matched these priorities with suitable catalytic capital mechanisms that can help de-risk and unlock private investment.

Collection and Sorting

- Deploy grant funding into digital logs for weighing data and digital traceability platforms such as Bekia's NEXT platform, Dawar, as well as voluntary EPR models like DORNA. Grant-backed digital logistics tools enable collectors and aggregators to log weighing and contamination data electronically, establishing the transparent, environmentally- and socially-compliant supply chains required by institutional investors without adding prohibitive overhead to small-scale collectors.
- Direct concessional debt and equipment co-matching grants toward pre-treatment, hot-wash lines, automated optical sorters (for color and polymer separation), and contamination removal technology to upgrade feedstock quality at primary collection nodes.
- Provide non-repayable technical assistance grants to streamline administrative licensing and expand the issuance of official identification for informal collectors under Waste Management Law 202/2020. Lowering financial and registration barriers allows informal networks, such as the Zabbaleen, to formalize, access social protections, and supply certified feedstock to corporate off-takers.

Recycling and Processing

- Deploy growth equity, concessional debt, and first-loss guarantee structures to scale closed-loop recycling infrastructure, particularly European Food Safety Authority (EFSA)/FDA-certified decontamination reactors and twin-screw extruders for industrial food-grade rPET processing targeting European Union export markets. Grant funding for technical assistance can support processors in achieving EFSA decontamination standards and building chain-of-custody documentation, mitigating execution risks and helping local processors secure long-term export off-take contracts.
- Provide low-interest loans and asset-backed debt for automated processing machinery, such as automated conveyor balers. Upgrading equipment increases labor efficiency, helping formal recyclers match informal sector processing speeds and operating costs.
- Deploy patient equity capital and blended working capital facilities to support recyclers expanding direct aggregation networks into major governorates outside Greater Cairo, reducing reliance on contaminated landfill feedstock and volatile spot markets.

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Enabling Environment

- Deploy policy technical assistance grants to support regulatory authorities in expanding mandatory EPR rules beyond single-use plastic bags to cover all plastic packaging. Establishing comprehensive packaging rules creates legally mandated local off-take demand, eliminates reliance on virgin plastic price parity, and makes the sector systematically investable.
- Provide technical assistance and institutional capacity-building grants to establish a single official digital portal for business permits across the Ministry of Environment, the Ministry of Industry, and local governorates.[116] Consolidating licensing reduces administrative delays, lowers compliance overhead, and gives investors transparent operating guidelines.[117]
- Fund technical support and regulatory implementation to enforce national food-safe packaging standards and green product eco-labels under Article 52 of Law 202, encouraging brand owners to switch from virgin resin to post-consumer recycled content.

[116] OECD. (2026). FDI Qualities Review of Egypt.
[117] OECD. (2026). FDI Qualities Review of Egypt.

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Country Deep Dive: Kenya



SNAPSHOT

PLASTIC WASTE GENERATED

938,000

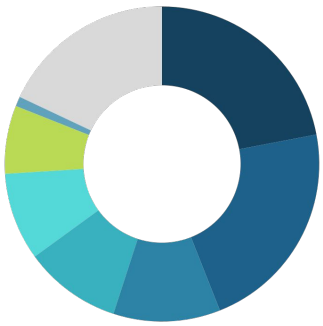
tonnes

(WWF Kenya, 2019 data)

COMPOSITION OF PLASTIC WASTE

- Polyester: 22%
- PP: 22%
- LDPE/LLDPE: 11%
- HDPE: 10%
- PET: 9%
- PVC: 7%
- PS: 1%
- Other plastics: 18%

(WWF Kenya, 2019 data)



END OF LIFE FATES OF PLASTIC WASTE



Recycled

8%

(CEJAD, 2023)

Mismanaged

92%

(CEJAD, 2023)

PRIVATE INVESTMENTS IN PLASTICS CIRCULARITY (2018 TO 2025)

# of deals:	US$ of deals:
61	**59 million**

Investment archetypes:

Recycling (93% of total US$ investments),

Alternative Materials (4%),

Recovery (3%)

KEY POLICIES GOVERNING PLASTIC WASTE

- **Environmental Management and Co-ordination Act** (established the National Environment Management Authority or NEMA)
- **Sustainable Waste Management Act (SWMA) 2022** (introduces EPR framework principles)
- **SWMA (EPR) Regulations 2024** (mandate EPR regulations)
- **Environmental Management and Co-ordination (Management and Control of Plastic Packaging Materials) Regulations** (prohibit certain plastic carrier bags, flat bags and plastic films)
- **Finance Act 2025** (excise duty of 25% or KES 200 per kilogram on select imported plastic products)

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Based on 2025 GDP data, Kenya is the sixth largest economy in Africa, with GDP reaching US$ 136 billion in 2025 and an average annual growth rate of 4.6% to 4.7%.[118] The economy has shown resilience through relative macroeconomic stability and growth in services, food, finance, insurance, and information and communications technology.[119] Kenya raised US$ 984 million in startup capital in 2025, positioning itself as a regional hub for technology and circular ventures.[120] However, macroeconomic stability faces headwinds from public debt servicing, inflation, and tax adjustments, while foreign exchange liquidity and electricity tariffs increase manufacturing overhead.

Key highlights from our assessment of Kenya's regulatory landscape, state of plastic waste and waste management, and investment landscape include:

- SWMA (2022) and EPR (2024) regulations establish a solid framework for formal waste recovery. However, execution remains severely constrained by compliance, operational, and administrative barriers.

- Community-based organizations (CBOs) and the informal sector are responsible for waste collection, yet their semi-formal and informal nature constrains their ability to expand their operational capacity.
- Plastics recycling is dominated by several large companies, primarily processing PET, HDPE, and PP into flakes or pellets. Logistical costs, and licensing costs and requirements affect recyclers' profit margins and push small and medium recyclers to remain informal.
- There is demand for recycled rigid polymers (PET, HDPE, PP) from multinational consumer brands, industrial converters, and East African Community (EAC) export markets.

- Private capital flows are heavily concentrated in a single large PET transaction, while public expenditure, ODA, and DFI funds are also limited.
- Targeted commercial opportunities exist in satellite collection hubs, automated washing lines, and export-oriented off-take, supported by blended finance.

[118] World Bank. (2025). GDP growth (annual %) - Kenya.
[119] World Bank. (2026). Kenya.
[120] Kenya Investment (InvestKenya) Authority. (2026). Waste management and circular economy investment opportunity in Kenya.

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PIONEERING COMPANIES IN THE SPOTLIGHT:

Mr. Green Africa and Limu Plastic Recyclers Demonstrate Diverse Capital Pathways in Kenya

For established recyclers like Mr. Green Africa (MGA), the combination of blended equity, DFI debt, and corporate off-take agreements has helped to scale its recycling infrastructure. In 2019, Unilever invested in MGA alongside DOB Equity, a leading Dutch family-backed impact investor in East Africa, and the Global Innovation Fund (GIF). This allowed the company to expand and build on its aggregation model, which is now its main sourcing model. GIF provided follow-on funding of US$ 1.5 million, and the company raised a Series B round, which allowed the company to increase its production plant's capacity to process 15,000 to 20,000 tonnes of plastic waste. In 2023, the US International Development Finance Corporation (DFC) provided a US$ 5 million loan to MGA to expand its recycling capacity. With the investments, MGA has successfully formalized the plastics supply chain and continues to support 6,000 registered waste collectors. The company's innovative model positions it as an emerging leader in inclusive growth. However, even as an established recycler, MGA continues to be challenged by sourcing and material quality issues.

Conversely, smaller-scale recyclers are in need of flexible, patient capital to support their transition from manual operations to industrial scale. One example is Limu Plastic Recyclers, which processes various grades of hard-to-recycle plastic waste, including HDPE, LDPE, and PP packaging films and bags, into high-grade finished granules. The company started with manual, small-scale operations and fabricated its own washing machinery, and its growth has been largely self-directed and self-funded. With current production of 30 tonnes per month, the company cannot meet demand from local and international buyers for HDPE and LDPE pellets. The ambition is to scale from one tonne per day to approximately 100 tonnes per month within two years by acquiring commercial pelletizing machinery, as well as to develop its wastewater management infrastructure, expand collection networks into Mombasa and other cities, and strengthen its financial systems.

SOURCES:

Unilever. (2019). Unilever increases recycling commitment with Mr Green Africa investment.
Global Innovation Fund. (n.d.). Mr Green Africa.
DOB Equity. (2022). Kenyan plastics recycler Mr. Green Africa boosted by a diverse group of investors.
DFC. (2023). DFC Makes More Than $9.1 Billion in Financial Commitments for Fiscal Year 2023.

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Regulatory Landscape

Kenya has foundational policies to address plastic waste and discourage the use of virgin plastics and the import of plastic products.

The Environmental Management and Co-ordination Act establishes the National Environment Management Authority (NEMA) to supervise environmental policies and regulations.[121] A 2015 amendment previously provided tax incentives, including a reduced 15% corporate tax rate for recycling plants and VAT exemptions on machinery, though these provisions were later repealed.[122]

Kenya banned single-use plastic carrier bags in 2017 and restricted SUPs in protected areas in 2020. In 2024, the Environmental Management and Co-ordination (Management and Control of Plastic Packaging Materials) Regulations (No. 181 of 2024) were introduced to prohibit the manufacturing, importing, selling, and exporting of plastic carrier bags, flat bags, and plastic films up to 250 microns without official authorization and licenses from NEMA.[123]

Since Kenya does not produce virgin resin, it imported 513,500 tonnes of virgin polymers in 2025 (primarily PP and PE).[124] The Finance Act 2025 introduced an excise duty of 25% (or KES 200/kg) on select imported plastic products, excluding those originating from EAC Partner States that meet EAC Rules of Origin.[125] These taxes increase the relative cost of imported virgin materials.

The Sustainable Waste Management Act (SWMA) in 2022 and EPR regulations in 2024 anchored Kenya's transition toward a circular economy.

The Sustainable Waste Management Act (SWMA) 2022 introduced EPR framework principles and equipment incentives.[126] Mandatory EPR regulations took effect in 2024, requiring producers to register with NEMA, obtain an annual operating license, and join a PRO or establish an individual compliance scheme.[127] Primary PROs include KEPRO and PAKPRO. Producers pay EPR fees determined by product volume and recyclability, alongside a 5% administrative fee to NEMA.

Compliance coverage and EPR fee distribution mechanisms need to continue to evolve to strengthen EPR as a reliable revenue stream and risk mitigator for recycling investments.

EPR compliance coverage remains low: KEPRO reports 1,400 member companies, while PAKPRO estimates its membership represents under 10% of target producers. Fund disbursement faces operational bottlenecks as informal waste pickers and aggregators generally lack formal business registrations and national tax identification, preventing them from issuing eTIMS receipts or digital tax invoices required for PRO fund disbursement. Conversely, PRO representatives state that collected fees remain insufficient to support value chain infrastructure because declared packaging volumes fall short of market imports.

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[121] Kenya Law (2022). Environmental Management And Co-Ordination Act.
[122] RSM Eastern Africa LLP & RSM (Eastern Africa) Consulting Ltd. (2020). The Tax Laws (Amendment) Bill.; EY. (2024). Kenya proposes tax changes under the Finance Bill, 2024.
[123] Kenya Law. (2024). The Environmental Management And Co-Ordination (Management And Control Of Plastic Packaging Materials) Regulations.
[124] Stakeholder consultations.
[125] Kenya Revenue Authority. (2025). Imposition of Excise Duty on Excisable Goods & Services Introduced by the Finance Act, 2025.
[126] National Environment Management Authority. (2022). The Sustainable Waste Management Act.
[127] National Environment Management Authority. (2022). The Sustainable Waste Management Act.

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VAT requirements on waste purchases present a major operational hurdle for formal processors.

National tax regulations require businesses to pay VAT on raw material purchases and provide corresponding tax certificates to qualify for deductions, with non-compliance subject to fines. Since the majority of waste collection relies on informal waste sector workers and CBOs who lack formal business registrations and eTIMS receipts, they are unable to issue the required tax documentation. As a result, formal recyclers must absorb the unclaimable VAT costs and associated compliance penalties, directly inflating raw material procurement expenses and systematically disincentivizing the integration of informal waste sector workers into formal supply chains.

Law enforcement remains weak and inconsistent between county and national governments, with insufficient staff and vehicles to conduct monitoring.

County governments are responsible for local waste management, county waste plans, and developing collection infrastructure, including MRFs and sanitary landfills. However, counties face budget, staffing, and transport constraints that hinder monitoring and enforcement. Lacking designated NEMA enforcement officers, county governments face operational limits in enforcing waste segregation and developing MRF infrastructure.

Kenya's investment policies promote and facilitate the growth of local and foreign investments, which can be supported further with infrastructure and regulatory enhancements.

The Investment Promotion Act (2004) created the Kenya Investment Authority (KenInvest) to facilitate domestic and foreign investment.[128] Statutory incentives include capital allowances for manufacturing machinery.[129] Foreign ownership is permitted up to 100% in most sectors, subject to leasehold land limits (99 years).[130] Capital repatriation and dividend remittances are guaranteed under the Foreign Investments Protection Act, subject to a 15% non-resident withholding tax.[131]

The State Department for Investment Promotion drafted a National Investment Strategy to address constraints affecting foreign direct investment.[132] Key operational issues impacting plastic recycling include:

1. High electricity tariffs and unreliable power increase manufacturing overhead.
2. Compliance costs arising from overlapping national (NEMA) and county licenses create regulatory friction, while public debt servicing leads to tax adjustments.[133]
3. Corruption perceptions present political risks for institutional capital, reflected in Kenya's score of 30/100 on the 2025 Corruption Perceptions Index.[134]
4. Judicial delays and enforcement gaps underline the need for consistent policy implementation.[135]

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[128] East Africa Community. (n.d.) Setting Up and Operating an Investment in Kenya.
[129] Kenya Investment Authority. (n.d.) Incentives.
[130] East Africa Community. (n.d.) Setting Up and Operating an Investment in Kenya.
[131] Kenya Investme'nt Authority. (n.d.) Laws and regulations.
[132] TradeMark Africa and State Department for Investment Promotion. (2024). Development of a National Investment Strategy for Kenya - Draft Strategy Document.
[133] World Bank. (2026). Kenya.
[134] Transparency International. (2025). Corruption Perceptions Index.
[135] TradeMark Africa and State Department for Investment Promotion. (2024). Development of a National Investment Strategy for Kenya - Draft Strategy Document.

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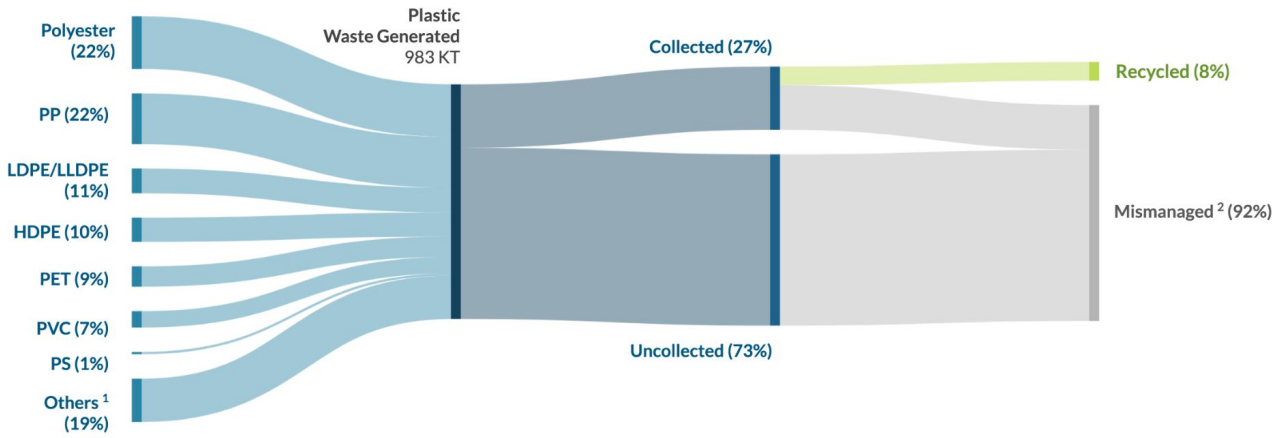
State of Plastic Waste and Waste Management

Nearly 1 million tonnes of plastic waste are generated annually, with 8% of this recycled and over 90% mismanaged.

Of the 983,000 tonnes of plastic waste generated, synthetic textiles (polyester) and PP account for the largest shares, followed by LDPE, HDPE, and PET (Figure 6). 27% of the plastic waste is collected, of which 8% is recycled.[136] Due to limited data availability, different sources cite various plastic recycling rates ranging from 2% to 10%.[137] Low recycling rates result from limited collection, sorting, and processing capacity, alongside a lack of mandatory recycled content targets to stabilize demand. Based on UNCTAD data, Kenya imported 15,000 tonnes and exported 5,000 tonnes of plastic waste in 2024.[138]

FIGURE 6. KENYA'S PLASTIC WASTE FLOW



NOTES:

[1] Others include other types of polymers and synthetic rubber. [2] Mismanaged includes uncollected waste and waste that is not adequately disposed of and ends up in the environment. In areas with poor coverage or where informal collectors lack permits, illegal dumping still persists, and there is a lack of engineered sanitary landfills across the country

SOURCE:

WWF Kenya (2019) for plastic waste composition and plastic waste generated amount, and CEJAD (2023) for end-of-life proportions.

Collection and Sorting

Formal waste collection coverage is low, and CBOs and informal collectors are key players in waste collection.

County governments manage waste collection through public fleets or private contracts. Kenya's urban areas have average waste collection coverage of 20% to 30%, which means 70% to 80% of the urban population does not receive formal waste collection services from the municipality.[139] While counties are mandated by the SWMA to construct MRFs, operational progress varies. Kisumu has established functional MRFs, whereas Nairobi faces space constraints and informal aggregator competition. Lacking operational MRFs, most plastic waste is mismanaged.

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[136] Centre for Environment Justice and Development (CEJAD). (2023). Towards a Just and Inclusive Transition for Waste Pickers in the Plastics Treaty and Circular Economy.
[137] WWF Kenya (2019) reported 21,679 of plastic waste recycled which make up a plastic recycling rate of 2%, while the ANDE (2025) report stated that 3% to 8% of plastic waste is recycled or reused, and the Kenya Private Sector Alliance (2023) stated a 8% to 10% plastic recycling rate.
[138] UN Trade and Development. (2024). Data Hub.
[139] Centre for Environment Justice and Development (CEJAD). (2023). Towards a Just and Inclusive Transition for Waste Pickers in the Plastics Treaty and Circular Economy.

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In place of formal waste collection services, CBOs and informal collectors manage waste collection using handcarts and light vehicles. In Nairobi, 185 registered CBOs cover 54% of collection, while informal collectors handle 24%. The Kenya National Waste Pickers Welfare Association records 46,000 members. However, informal collectors lack official policy recognition and business registrations, preventing them from issuing eTIMS receipts required for EPR fund disbursement. In addition, formal aggregation license fees of KES 80,000 present financial barriers for small CBOs, restricting formal site development.

Recycling and Processing

Plastics recycling is dominated by a few large companies concentrated in Nairobi, primarily processing PET, HDPE, and PP into flakes or pellets.

Recyclers such as Mr. Green Africa and Taka Taka Solutions have annual processing capacities ranging from 3,600 to 20,000 tonnes, whereas smaller processors handle under 1,500 tonnes per year. Limu Plastic Recyclers and Taka Taka Solutions recycle flexible plastics, though overall flexible plastic (LDPE) processing capacity remains limited.

Nairobi serves as the primary economic hub, generating 140,000 tonnes of plastic waste annually.[140] Waste infrastructure in secondary counties (Nakuru, Mombasa, Kisumu) remains underdeveloped.[141] Secondary counties often lack local off-take markets, requiring processed material to be transported to Nairobi, which increases logistics costs.

Small and medium recyclers face higher costs to manage contaminated feedstock, while logistical and compliance costs affect their profit margins, pushing them to remain informal.

A lack of source segregation results in contaminated feedstock entering recycling facilities. Although strict restrictions on moving plastic waste across borders within the EAC prevent large-scale recyclers from sourcing regional feedstock, they can utilize automated sorting and washing systems to manage contaminated material. Smaller processors lacking advanced pre-processing equipment absorb high manual sorting costs.

As for transporting waste across county lines, inter-county cess fees reduce the commercial viability of shipping uncompressed, low-density plastic. Recyclers also face duplicate compliance overhead from paying both local county permits and national NEMA framework fees, burdening small and medium processors.

End Markets for Recycled Plastics

There is demand for recycled plastics from international players and local converters, especially for high-value plastics, but this demand is constrained by the lack of strong market incentives.

Based on our interviews with recyclers, off-take demand for secondary rigid polymers such as HDPE and PP is supported by multinational consumer goods firms and packaging manufacturers (Blowplast, McDaves, Silafrica). While food-grade capabilities are highly limited in Kenya, the available food-grade PET pellets are sold to beverage packaging firms (Intripet), while non-food flakes supply chemical and synthetic resin manufacturers (Synresins). Recycled flakes are also used in local construction materials, such as roofing tiles.

Demand for hard-to-recycle flexible plastics such as LDPE remains limited. Startups like Gjenge Makers and Timao Group process flexible plastics into alternative building products, such as paving blocks and posts. One of the recyclers we interviewed exports recycled flexible pellets to regional markets, namely Uganda, South Africa, Burundi, and Ethiopia. However, overall demand growth remains constrained by the absence of mandatory recycled content targets.

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[140] Science Africa. (2021). Waste Recycling Initiative Helping to Reduce Plastic Pollution in Nairobi.
[141] Hudumu Global. (2026). Urbanization in Kenya: How Nairobi, Mombasa, and Kisumu Are Growing and What It Means for the Future.

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Investment Landscape

As noted in Table 3, private investment in plastics circularity totaled US$ 59 million between 2019 and 2025, directed primarily (93%) toward recycling solutions. Public expenditure of US$ 52 million on municipal waste management falls below the 0.3% to 0.5% GDP benchmark recommended by the World Bank, which amounts to US$ 540 million. ODA and DFI funding levels reflect a shortage of catalytic capital to de-risk infrastructure assets.

Kenya's vibrant startup ecosystem attracts high volumes of early-stage accelerator grants, yet growth-stage ventures face a critical capital bottleneck when seeking US$ 1 million to US$ 5 million to scale collection and processing capacity beyond pilot phases. ODA commitments prioritize downstream technical assistance, wastewater management, and community-level initiatives, with limited direct allocation to blended finance structures capable of crowding in commercial debt. Furthermore, high commercial interest rates, coupled with regulatory compliance friction and unhedged currency exposure, prevent local recyclers from accessing bank loans, leaving the sector heavily reliant on blended equity and DFI facilities.

TABLE 3. OVERVIEW OF INVESTMENT SOURCES FOR PLASTICS CIRCULARITY AND WASTE MANAGEMENT IN KENYA

Funding Source	Total Funding Amount (US$ mn)	Data Period	Annual Average (US$ mn)
Government Spending[142]	52	per year	52
Official Development Assistance[143]	34	2018 to 2024	4.9
Development Finance[144]	2.2	2018 to 2025	0.3
Private Sector[145]	59	2018 to 2025	7.4

Government Spending

Government spending ranges between US$ 48 million and US$ 55 million annually across national and county levels. National expenditure averaged US$ 360,000 annually between 2023 and 2025, with a 2026 allocation of US$ 19 million (KES 2.47 billion).[146] County waste management spending ranges from US$ 26,000 to US$ 13 million per county, with Nairobi representing the largest budget (US$ 13 million).[147] Excluding Nairobi, average county spending across remaining counties ranges from KES 96 million to KES 116 million annually, yielding an estimated total county expenditure of US$ 47.6 million to US$ 54.9 million.

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[142] Figures include the average national government expenditure between 2023 and 2025 and an estimate of county government spending extrapolated from the average spending of 10 county governments, based on reported data from the Controller of Budget and Auditor-General reports.
[143] Figures refer to land-based ODA and reflect commitment amounts.
[144] Figures originate only from projects solely focused on solid waste management and plastics circularity, whose recipients are not private companies, and reflect commitment amounts. Multi-sector projects and multi-country projects are excluded due to the lack of clear funding delineation. The amount reflects disclosed commitment amounts for two of the five projects.
[145] Value is derived only from disclosed deals. While the online PCIT only features values from 2018 to 2024 at the time of writing, we updated the data to include additional deals from 2025 for the five countries.
[146] Open Budget Kenya. (2026). National Solid Waste Management - 2026.
[147] The Star. (2025). How garbage collection has become a lucrative business in counties - with data from Controller of Budget (COB) Report and Auditor General (OAG) Report (2023-2024).

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Including national expenditure, total public spending stands at US$ 48 million to US$ 55 million annually. Based on World Bank benchmarks recommending 0.3% to 0.5% of GDP for solid waste management,[148] Kenya's target public expenditure for its 2025 GDP (US$ 136 billion) is approximately US$ 540 million, highlighting a funding gap in municipal infrastructure.

Official Development Assistance

US$ 34 million in ODA was committed to Kenyan waste management between 2018 and 2024, primarily as grants for downstream recycling projects, wastewater treatment, and institutional capacity building.[149] Primary donor countries include Belgium, Sweden, and Japan.

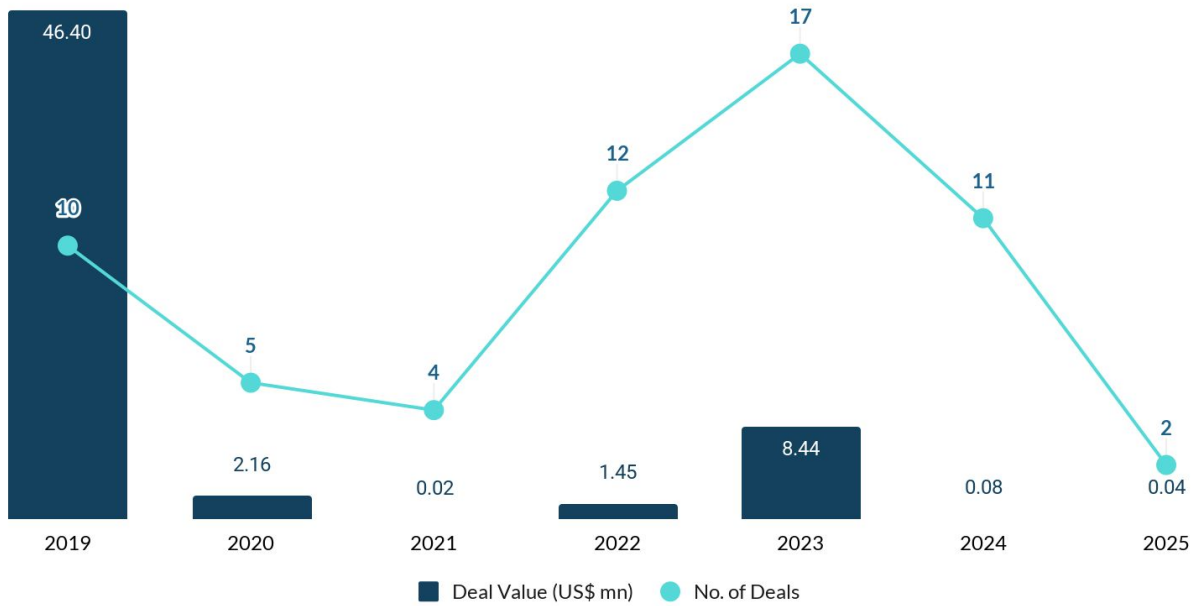
Development Finance

Our research identified eight DFI-funded projects with waste management components in Kenya between 2018 and 2025. Out of these projects, five are solely focused on solid waste management. These five projects focus on organic waste, biogas, and fertilizer processing, representing US$ 2.2 million in loan financing.[150]

Private Sector Investments

Kenya attracted US$ 59 million across 61 private investment deals in plastics circularity between 2019 and 2025, as there were no deals recorded in 2018. Deal value peaked in 2019 (US$ 46 million), while deal volume peaked in 2023 with 17 transactions (Figure 7).

FIGURE 7. KENYA: PRIVATE INVESTMENTS IN PLASTICS CIRCULARITY FROM 2018 TO 2025



NOTE:

Deals with undisclosed deal values are included in the deal count but excluded from deal value calculations.

SOURCE:

Plastics Circularity Investment Tracker.

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[148] World Bank. (2026). What a Waste 3.0: Global Snapshot of Solid Waste Management toward Circularity until 2050
[149] OECD. (2024). Data platform on development finance for the sustainable ocean economy.
[150] AFDB. (2021). Kenya - Kabira Waste-To-Energy - SEFA Project Summary Note.; EIB. (n.d.). Waste-to-Biogas in Kisumu City, Kenya.; Finnfund. (n.d.). Current investments.; Norfund. (2023). Case study: Norfund's investment in Novastar grows circular waste business in Nairobi.; DFC. (2021). Transforming collected organic waste into insect feed and organic fertilizer in Kenya: Impact investing in Sanergy (Private Sector Investment Finance). Note that the US$2.2 million reflects only the disclosed commitment amount from two out of five projects.

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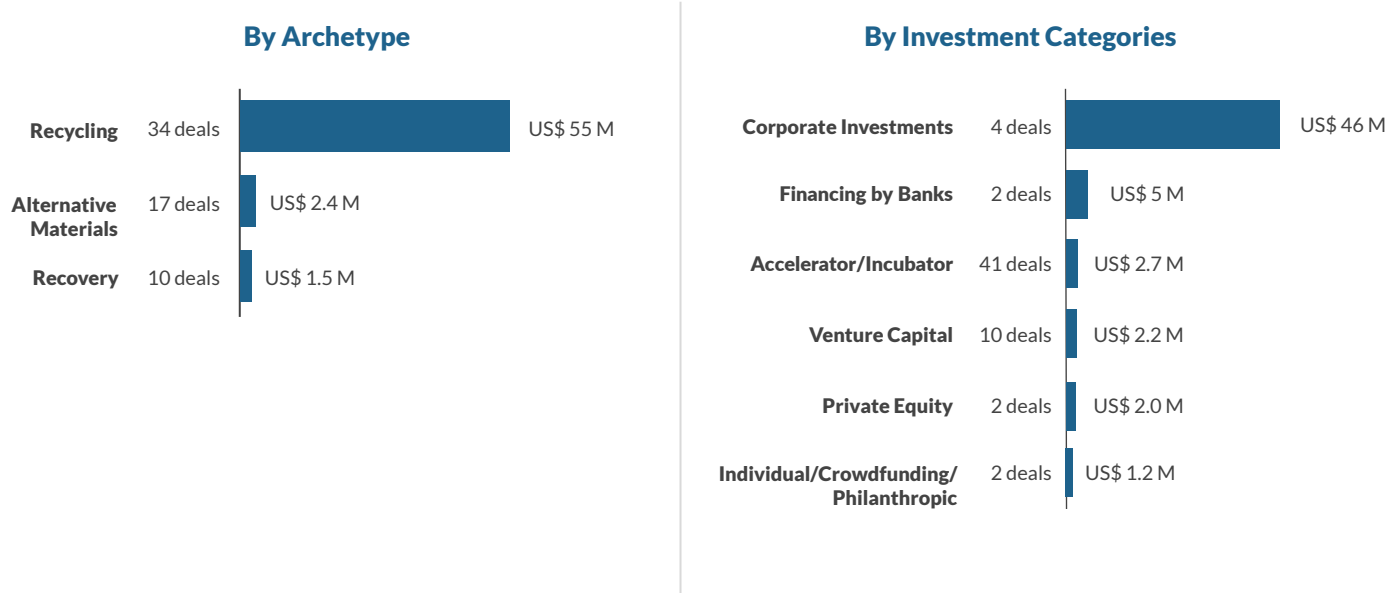
Recycling solutions captured 93% of total private investment, driven by a US$ 45 million investment by Weeco Recycling Company to construct PET facilities in Athi River and Mombasa. Of the 34 recycling deals, 14 targeted mechanical recycling, while 20 supported waste-to-durables manufacturing (construction materials). The deals that went toward mechanical recyclers were mainly for PET recyclers, with one deal going toward an HDPE and PP recycler. Alternative materials accounted for 28% of deal volume and 4% of total deal value (Figure 8).

In terms of the breakdown by investment categories, corporate investments represented 78% of total deal value, while accelerators and incubators accounted for 67% of deal volume (Figure 8). Accelerator ticket sizes clustered below US$ 500,000, focusing on alternative materials and waste-to-durables startups (Figure 9). Equity investments (venture capital, private equity, corporate investments) mainly targeted mechanical recycling facilities, while one established mechanical recycling facility also secured two bank loans.

FIGURE 8. KENYA: PRIVATE INVESTMENTS IN PLASTICS CIRCULARITY FROM 2018 TO 2025 BY ARCHETYPES AND INVESTMENT CATEGORIES



NOTE:

Deals with undisclosed deal values are included in the deal count but excluded from deal value calculations.

SOURCE:

Plastics Circularity Investment Tracker.

For definitions of the archetypes and investment categories, please refer to the Methodology document.

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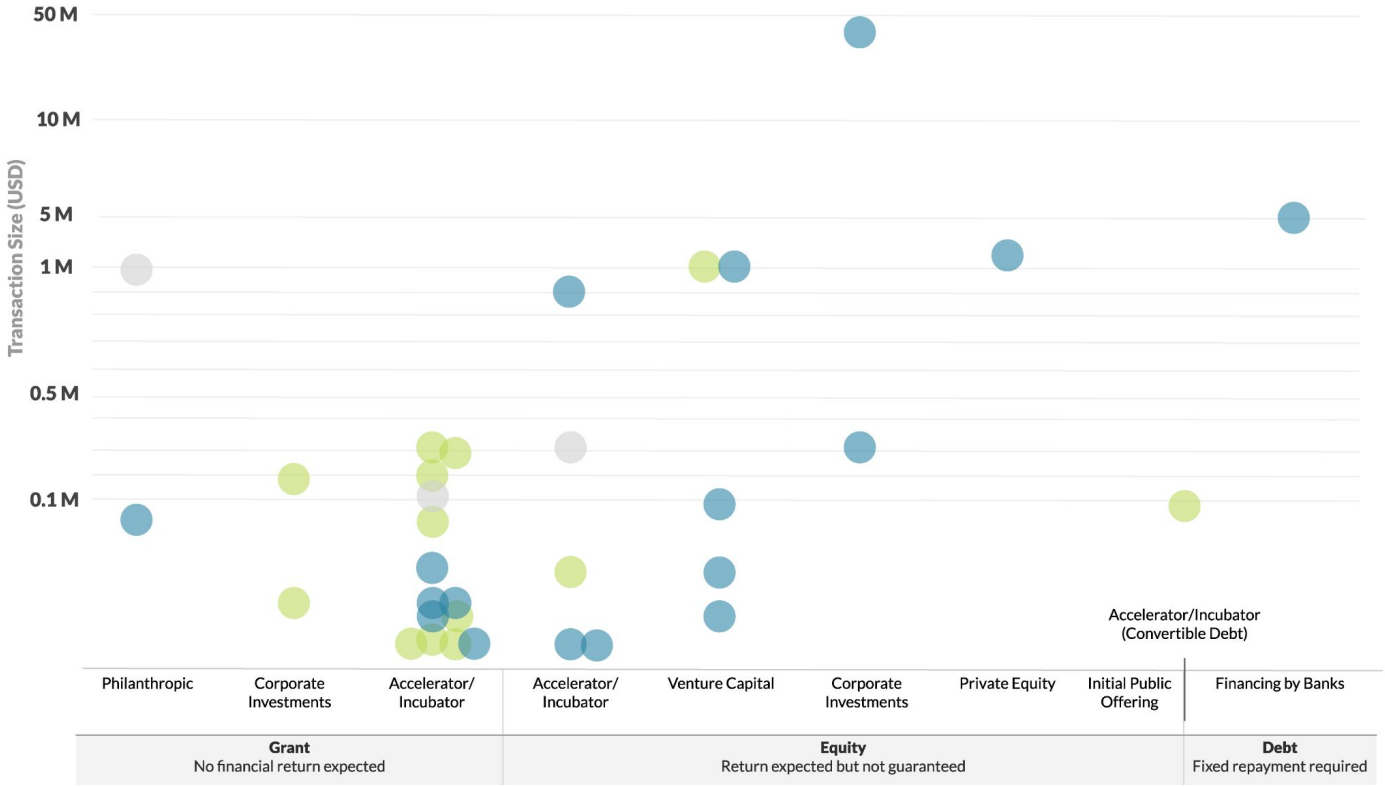
FIGURE 9. KENYA: PRIVATE INVESTMENTS IN PLASTICS CIRCULARITY FROM 2018 TO 2025 BY INVESTMENT CATEGORIES (DISCLOSED DEALS ONLY)



LEGEND:

Alternative Materials Recovery Recycling

NOTE:

The deals presented here are based on disclosed deals.

ASSUMPTIONS:

- Accelerator/Incubator deals that are specified as grant, award/prize, or prize money are categorized as grants, whereas those that are specified as equity-based accelerators are categorized as equity. Those involving convertible debt are placed between the equity and debt categories.
- All Corporate Investments, including mergers/acquisitions, joint ventures, and buyouts, are categorized as equity, whereas Corporate Investments specified as grants are categorized as grants.
- All Financing by Banks and Individual/Crowdfunding/Philanthropic Investments are categorized as debt, except for convertible notes, which are categorized between the equity and debt categories.
- All Venture Capital, Private Equity, and Initial Public Offerings are categorized as equity.

SOURCE:

Plastics Circularity Investment Tracker.

For definitions of the archetypes and investment categories, please refer to the Methodology document.

Opportunities and Recommendations

High electricity tariffs, unreliable power, duplicate inter-county licensing fees, and VAT barriers to informal waste purchases make it necessary for DFIs and philanthropic funders to first absorb early-stage risk. By pairing specific capital instruments with targeted operational gaps, DFIs and donors can de-risk the value chain and build the foundation required to bring in commercial investment at scale.

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In our interviews, value chain actors cited key priorities across each value chain stage and the enabling environment. We matched these priorities with suitable catalytic capital mechanisms that can help de-risk and unlock private investment.

Collection and Sorting

- Direct public grant capital and public-private infrastructure funds to deploy decentralized pre-processing equipment, such as commercial balers, industrial shredders, and weigh-scale digital logging software, at regional collection depots outside Nairobi. Absorbing upfront machinery costs through grants increases material density at recovery points, drastically lowering transport costs and improving feedstock quality.
- Fund the construction and expansion of operational MRFs in secondary counties beyond Nairobi, using blended public-private funds. Secondary coastal hubs like Mombasa represent strategic starting points, utilizing the Port of Mombasa as a trade hub for secondary materials.
- Deploy first-loss credit guarantees and venture grant capital to back digital supply chain tools, such as mobile transaction logging applications like the Mtaka platform. Equipping aggregators with digital verification tools establishes audited operating histories, enabling alternative credit-scoring models for local commercial banks and providing institutional investors with transparent environmental and social data.
- Deploy non-repayable technical assistance grants and incentive funds to organize informal waste collectors and CBOs into formal cooperatives. Streamlining business registration and tax compliance enables collector groups to receive PRO fund distributions under the 2024 EPR framework.

Recycling and Processing

- Deploy blended finance facilities, combining concessional debt and equipment co-matching grants, to support smaller-scale processors in acquiring hot-wash lines, automated optical sorters (for color and polymer separation), and twin-screw extruders. Subsidized capital overcomes prohibitive commercial interest rates, allowing recyclers to process contaminated feedstock into high-purity pellets that meet industrial melt flow index specifications and support food-grade recycling standards through EFSA/FDA-certified decontamination reactors.
- Provide accessible equipment loans, technical assistance grants, and mold-development training to help processors bring manufacturing in-house. Supporting recyclers to convert plastic waste into finished durable goods increases product margins and unlocks viable small-scale community enterprises.
- Deploy donor-funded technical assistance grants for capacity building in financial record-keeping, corporate governance, and investor readiness. Professionalizing internal controls helps mid-stage recycling businesses become visible and investable for institutional capital providers.
- Direct concessional debt and matching grants toward off-grid solar-diesel hybrid systems, battery storage, commercial grid transformers, and localized grid energy upgrades to protect factories from high electricity tariffs and recurring power cuts, ensuring processing machinery operates at full capacity.

Enabling Environment

- Deploy policy technical assistance grants to support national environmental authorities and PROs in resolving administrative bottlenecks in EPR fee flows. Clarifying disbursement rules increases regulatory reliability and lowers operating compliance costs for recyclers.
- Provide intergovernmental technical assistance and policy grants to harmonize waste transport permits and eliminate inter-county cess fees across Kenya's 47 counties, reducing cross-regional logistics costs for processors.

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Country Deep Dive: Nigeria



SNAPSHOT

PLASTIC WASTE GENERATED

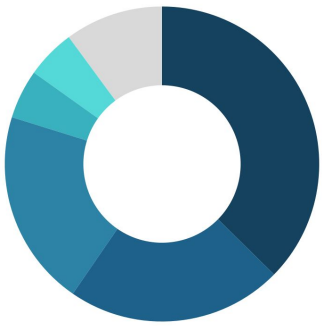
2.5 million tonnes

(Centre for Science and Environment, 2023)

COMPOSITION OF PLASTIC WASTE

- PE: 37%
- PP: 22%
- PET: 20%
- PVC: 5%
- PS: 5%
- Other plastics: 10%

(PWC, 2019)



END OF LIFE FATES OF PLASTIC WASTE



Recycled

10%

(World Economic Forum, 2020)

Mismanaged

90%

(World Economic Forum, 2020)

PRIVATE INVESTMENTS IN PLASTICS CIRCULARITY (2018 TO 2025)

# of deals:	US$ of deals:
57	**12 million**

Top three investment archetypes: **Recycling** (74% of total US$ investments), **Operational Platforms** (25%), **Refill/Reuse** (0.7%)

KEY POLICIES GOVERNING PLASTIC WASTE

- **National Policy on Plastic Waste** (formalizes the transition toward a circular plastics economy)
- **Implementation Guidelines on Collection, Diversion, Recycling and Single-use Plastics for National Policy on Plastic Waste Management (2024)** (focuses on enhancing waste collection, scaling local recycling and reducing SUPs circulation)
- **National Environmental (Plastic Waste Control) Regulations** (mandate EPR regulations)

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Nigeria's macroeconomic scale and rapid urbanization have established a major consumer market. Nigeria is Africa's most populous country, with GDP reaching US$ 291 billion in 2025 and annual economic growth of 4%.[151] The oil and gas sector represents 10% of GDP and over 90% of export earnings, providing foreign exchange but exposing the economy to global commodity shocks. However, inflation and currency volatility are key challenges. Over 60% of the population lives below the national poverty line, with high inflation straining household incomes.[152] Generating quality employment remains necessary to absorb the 3.5 million entrants joining the labor force annually.

Key highlights from our assessment of Nigeria's regulatory landscape, state of plastic waste and waste management, and investment landscape include:



- The recently mandatory EPR regulations create clear compliance targets for recycled content. Currently, registration remains low, while environmental agencies face resource constraints on monitoring and enforcement.



- Nigeria has relatively low waste collection efficiency, with informal collectors managing 59.3% of total waste disposal nationally.
- Lagos State serves as the central hub for Nigeria''s recycling activity, where there is high competition for plastic waste, while other states lack recycling infrastructure.
- Unreliable national grid power forces recyclers onto expensive diesel generation, inflating operational costs and restricting capacity utilization.
- Clear off-take pathways exist for PET and polyolefins through recyclers' partnerships with bottlers and multinational corporations, though specialized and multi-layered plastic fractions face limited domestic commercial demand.



- Nigeria recorded the second lowest private investment among the five countries, while public expenditure and DFI funding remain low relative to infrastructure needs.
- Targeted capital deployment in regional collection depots and off-grid solar integration can address core supply chain and energy bottlenecks.

[151] World Bank, (2025). GDP (current US$) - Nigeria.
[152] World Bank. (2026). Nigeria.

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PIONEERING COMPANIES IN THE SPOTLIGHT:

Polysmart and Indorama Ventures Drive Nigeria's Food-Grade rPET Expansion

Polysmart is a leading Nigerian rPET manufacturer and continues to grow its capacity. The recycler, established in 2013, produces food-grade and non-food-grade rPET resins and pellets. The company's successful track record includes securing a US$ 12 million loan from the Central Bank of Nigeria to establish its first food-grade PET line, which was also its third production line. The company has off-take agreements with customers such as Manuchar in Belgium and Rite Foods in Nigeria, as well as commercial partnerships with multinational companies. With the rising demand for rPET, in January 2026, the company announced a US$ 60 million investment to expand its facility and reinforce its growing role in strengthening Nigeria's local recycling capacity. The plant will have an input capacity of 100,000 tonnes of mixed plastics annually and will be capable of recycling more than 5.5 billion PET bottles per year. It is expected to be fully completed in July 2026. Through this expansion, the company aims to support local manufacturers with domestically sourced recycled plastics, thus reducing foreign exchange pressure and reliance on imported virgin plastics. In March 2026, the company secured a US$ 5 million equity investment from an undisclosed Africa-focused private investor.

To contribute to the food-grade rPET recycling capacity in Nigeria, Indorama Ventures also announced the construction of an rPET production facility in Lagos, alongside Nigerian Breweries and Genesis Energy, the energy infrastructure management company. The facility will be capable of producing 45,000 tonnes of food-grade rPET annually, starting in the first half of 2027. The initiative aligns with Nigeria's policies to strengthen recycling through the National Policy on Plastic Waste Management. The partnership with Genesis Energy also highlights the importance of ensuring sustainable infrastructure and energy solutions for the facility to run effectively.

SOURCES:

Verdant Capital. (2024). Polysmart grows its production capacity and customer footprint.

Sustainable Packaging Middle East and Africa. (2026). Polysmart invests US$ 60M in Nigeria's largest plastic recycling plant to accelerate circular economy.

Sustainable Packaging Middle East and Africa. (2026). Polysmart Packaging secures US$ 5M equity investment to expand rPET production in Nigeria.

Indorama Ventures. (2026). Indorama Ventures, Nigerian Breweries and Genesis Energy Partner to Develop One of Africa's Largest rPET Production Facilities

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Regulatory Landscape

Nigeria's regulatory environment has evolved to include clearer mandates for plastics through the National Policy on Plastic Waste and the transition from a voluntary framework to a mandatory EPR model.

Nigeria's transition toward a circular plastics economy is formalized through the National Policy on Plastic Waste, defining roles for public agencies, private industry, and civil society.[153] The Implementation Guidelines launched in November 2024 focus state efforts on three objectives:

1. Enhancing collection and landfill diversion.
2. Scaling local recycling capacity.
3. Reducing single-use plastic circulation.[154]

The National Environmental (Plastic Waste Control) Regulations were adopted in February 2026 as the primary instrument for plastic waste control.[155] Producers and collection centers must register with and fund a PRO to support EPR schemes. The regulations mandate recycled PET content in plastic packaging: 25% by January 2028 and 50% by January 2030, requiring material to be sourced from certified local producers.[156] The Food and Beverage Recycling Alliance (FBRA) serves as the primary PRO with 49 member companies. Increasing producer registration is required to scale collection center funding and logistics solutions.

National plastic waste policies recognize the need for informal sector inclusion.

The National Policy on Plastic Waste and the 2026 Plastic Waste Control Regulations identify informal worker inclusion as a core strategy, requiring government and development partners to support livelihoods, working conditions, and social safety nets.[157] The National Environmental Standards and Regulations Enforcement Agency (NESREA) is establishing a cooperative-led model to organize small-scale collectors into structured cooperatives to improve material data collection and EPR integration.

The government has also implemented policies to attract foreign investment, which is primarily regulated through the Nigerian Investment Promotion Commission (NIPC) Act and the Foreign Exchange (Monitoring and Miscellaneous Provisions) Act.

Under the NIPC Act, foreign investors can hold up to 100% equity in domestic enterprises, subject to local corporate registration requirements.[158] The NIPC coordinates investment approvals. While profit repatriation is legally guaranteed through authorized dealer banks, foreign exchange liquidity constraints and Central Bank measures have impacted profit conversion and repatriation timelines.[159]

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[153] Federal Ministry of Environment. (2025). National Policy On Plastic Waste-1-1.
[154] Federal Ministry of Environment. (2024). Implementation guidelines on collection, recycling and single-use plastics for National Policy on Plastic Waste Management.
[155] Federal Republic of Nigeria Official Gazette. (2026). National Environment (Plastic Waste Control) Regulations, 2026.
[156] Sustainable Packaging Middle East and Africa. (2026). Nigeria's 25-50% local rPET mandate from 2028 to drive domestic recycling, packaging reform.
[157] Federal Ministry of Environment. (2025). National Policy On Plastic Waste-1-1.
[158] Nigeria Circular Economy Week. (2026). How to Trade in Nigeria: A Practical Guide to Waste Management & Recycling.
[159] World Bank. (2022). Investment Policy And Regulatory Review Nigeria.

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The regulatory environment is challenged by inconsistent enforcement capacity, continued perceptions of corruption, and concerns that stakeholder consultation mechanisms during policy design do not involve the full value chain, especially smaller recyclers and operators.

Enforcement capacity across national and state authorities is affected by funding constraints, inter-agency coordination gaps, and staffing shortages. State environmental monitoring departments face transport and equipment limits, while independent laboratory testing infrastructure for verifying recycled content claims remains limited. Furthermore, Nigeria scored 26/100 on the 2025 Corruption Perceptions Index,[160] reflecting business environment concerns among institutional investors.[161]

Although stakeholder consultation mechanisms exist for policy formulation, there are concerns that these mechanisms do not always reach the full value chain, particularly smaller recyclers, aggregators, waste pickers, and operators outside Lagos and Abuja. Stakeholder consultation mechanisms include technical working groups and engagements with industry associations. For example, recent engagements between NESREA and the Manufacturers Association of Nigeria (MAN) regarding restrictions on SUPs under 80 microns addressed production impacts and policy scope.[162] These engagements demonstrate the effort to incorporate diverse perspectives into the ongoing policy formulation process. In the case of the PET waste export ban, however, while industry associations noted that the ban is meant to retain local feedstock, it has impacted aggregators' hard-currency revenues, emphasizing the need to consult small processors and regional aggregators during policy design.

State of Plastic Waste and Waste Management

Nigeria generates approximately 2.5 million tonnes of plastic waste annually, with 10% recycled and the majority mismanaged.

PE (37%), PP (22%), and PET (20%) represent the largest polymer shares of generated plastic waste (Figure 10). Mismanaged waste accounts for 90% of end-of-life plastic, accumulating in informal disposal sites. The Lagos Waste Management Authority (LAWMA) has earmarked primary landfill sites (Olushosun and Solous III) for conversion into MRFs.[163] Based on the UNCTAD data hub, Nigeria imported 6,000 tonnes and exported 8,000 tonnes of plastic waste in 2024.[164]

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[160] Transparency International. (2025). Corruption Perceptions Index.
[161] Allianz. (2026). Country Risk Report - Nigeria.
[162] Business Day. (2026). Manufacturers warn plastic rules threaten jobs, economic growth.; The Sun. (2026). NESREA defends Plastic Waste Control Regulation 2026.
[163] Lagos State Government. (2025). We Are Embracing Strategic Environmental Initiatives To Address Waste Management Issues.
[164] UN Trade and Development. (2024). Data Hub.

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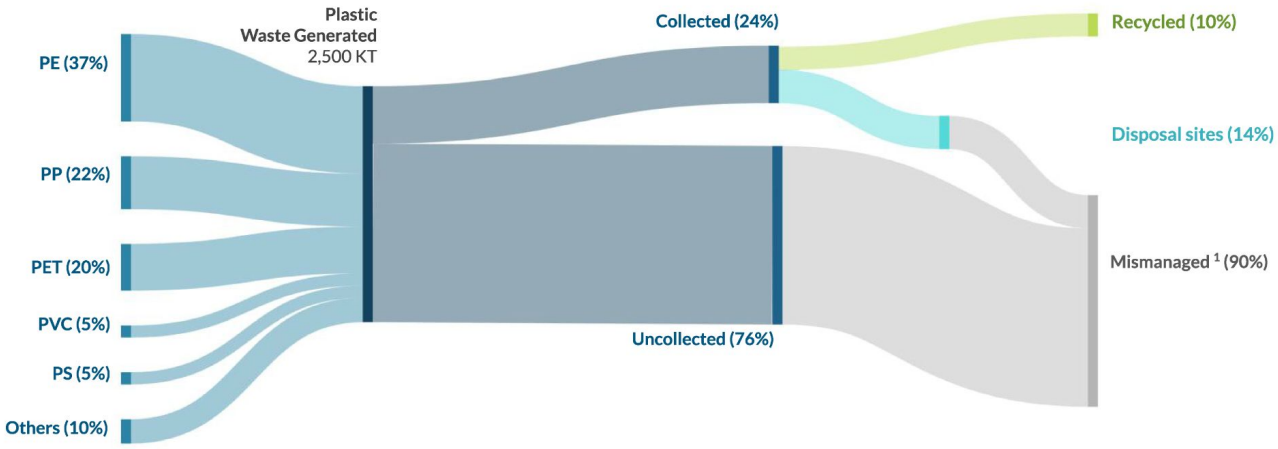
FIGURE 7. NIGERIA'S PLASTIC WASTE FLOW



NOTES:

[1] Mismanaged includes uncollected waste and waste left at disposal sites. This also includes waste that is openly burnt and leaked into the environment.

SOURCES:

Proportions of plastic waste flow are adapted from World Economic Forum (2020), adjusted to the total plastic waste generated amount of 2,500 KT based on the Centre for Science and Environment (2023), and confirmed by stakeholder consultations. Polymer breakdown is from PWC (2019).

Collection and Sorting

Nigeria has relatively low waste collection efficiency, with waste collection relying mainly on the informal sector.

44% of the MSW generated in Nigeria is collected, with waste collection rates in urban centers ranging from 10% in Lagos to 40% in Ibadan.[165] Contracted private operators handle commercial and residential collection, while informal collectors manage 59.3% of total waste disposal nationally.[166] An estimated 40,000 to 80,000 waste pickers operate in Lagos alone, collecting 80% of plastic recovered for recycling.[167]

Plastics collected for recycling are mostly of low quality and have limited traceability.

Household source segregation rates remain low. In major cities such as Umuahia and Abeokuta, only 13% and 56% of the households segregate their waste, respectively.[168] Based on our interviews with recyclers, feedstock contamination causes 20% to 30% material processing losses, increasing unit costs and limiting high-value applications. Informal feedstock sourcing also presents price volatility and traceability challenges for corporate brand buyers, as traceability is increasingly required for EPR reporting, producer claims, and chain-of-custody verification.

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[165] Ajaero et. al. (2023). Energy production potential of organic fraction of MSW (OFMSW) and its implications for Nigeria.
[166] Include Platform. (2024). Formalizing the Informal Waste Picker Economy for Sustainable Development in Nigeria.
[167] The Guardian. (2025). Public health, environment suffer amid thriving informal recycling system.
[168] Ajaero et. al. (2023). Energy production potential of organic fraction of MSW (OFMSW) and its implications for Nigeria.

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Recycling and Processing

Lagos State serves as the central hub for Nigeria's recycling activity, where there is high competition for plastic waste, while other states lack recycling infrastructure.

Small-scale processors handle 7.2 to 18 tonnes annually using manual sorting. Medium-scale facilities process 120 to 1,200 tonnes annually, while large-scale recyclers (Kaltani, Polysmart, Solid Chemical Recycling, Switch Recycling, Top Polymers, Wecyclers) manage over 1,200 tonnes annually.

Lagos State represents the primary hub for recycling activity, with over 176 registered members in the Lagos Recyclers Association (LAGRA). High facility concentration creates competition for available feedstock in Lagos, whereas secondary states lack processing infrastructure, requiring raw waste to be transported long distances over poor road networks.

Recycler operations are volatile due to fuel, logistics, and grid electricity unreliability.

Fuel subsidy removals in 2023 increased operational transport and power overhead. Grid electricity instability requires heavy reliance on off-grid diesel generation, increasing operating costs and impacting facility maintenance schedules.

Compliance costs for recyclers are exacerbated by governance fragmentation and regulatory overlap.

Processors manage compliance across federal agencies (NESREA, Federal Ministry of Environment) and state waste boards (such as LAWMA). Statutory requirements include Corporate Affairs Commission (CAC) business registration, state environmental permits, and NESREA Waste and Toxic Substances Permits (US$ 15/NGN 20,000).[169] Managing the multiple agency inspections increases operating overhead.

Local operators face limitations in accessing capital, compared to foreign-owned operators.

Foreign-owned processors frequently purchase directly from collectors, bypassing local aggregators by offering higher collection prices. Domestic aggregators face local commercial bank interest rates of 30%, whereas foreign-owned firms access overseas capital at single-digit rates. Although machinery imports are exempt from the 4% Free on Board (FOB) levy, high borrowing costs restrict local processors from financing solar power systems, transformers, and automated washing lines. Domestic firms holding foreign-currency loans also face currency fluctuation risks when earning revenue in Naira.

End Markets for Recycled Plastics

There is demand for recycled plastics from both local packaging companies and multinational brands, and this demand is expected to grow further with effective enforcement of EPR regulations and recycled content mandates.

Processors produce flakes and pellets, finished products including household items, and bottle-to-bottle products. Formal PET processors, such as Switch Recycling, supply domestic packaging firms and multinational brand buyers. Recycled PP and PE supply local household goods manufacturers, whereas multi-layered flexible plastics face limited off-take demand beyond small-scale manufacturing of interlocking tiles. Enforcing mandatory EPR and recycled content targets is expected to stabilize off-take demand.

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[169] Nigeria Circular Economy Week. (2026). How to Trade in Nigeria: A Practical Guide to Waste Management & Recycling.

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Investment Landscape

As noted in Table 4, private investment in Nigeria's plastics circularity is the second lowest among the five countries. Private deal value totaled US$ 12 million between 2018 and 2025, directed mostly (74%) toward recycling solutions. Public expenditure on municipal waste management remains below international benchmarks, while ODA and DFI funding levels reflect a shortage of catalytic capital for infrastructure development.

In Nigeria, accelerator grants clustered below US$ 500,000 and were directed mainly toward operational platforms and collection models, while larger equity and debt transactions were recorded for more established recycling facilities. Grant funding and development assistance remain modest relative to market size, focusing primarily on localized collection initiatives and digital platform pilots rather than de-risking large-scale processing assets. Additionally, commercial interest rates hovering around 30% alongside severe currency devaluations make local debt prohibitive for domestic operators, creating a sharp competitive advantage for foreign-backed entities accessing low-cost overseas capital.

TABLE 4. OVERVIEW OF INVESTMENT SOURCES INTO PLASTICS CIRCULARITY AND WASTE MANAGEMENT IN NIGERIA

Funding Source	Total Funding Amount (US$ mn)	Data Period	Annual Average (US$ mn)
Government Spending	27	per year	27
Official Development Assistance[170]	2.1	2018 to 2024	0.3
Development Finance[171]	0.7	2018 to 2025	0.08
Private Sector[172]	12	2018 to 2025	1.5

Government Spending

The Federal Ministry of Environment allocated approximately US$ 388,000 (NGN 524 million) to direct waste management and recycling projects in 2025, funding municipal waste initiatives, recycling guidelines, and circular economy hubs.[173] Lagos State reported a waste management budget exceeding US$ 750,000 (NGN 1 billion). Extrapolating state waste budgets across Nigeria's 36 states yields an estimated total public spend of US$ 27 million.

Based on World Bank benchmarks recommending public expenditure of 0.3% to 0.5% of GDP for solid waste management,[174] Nigeria's target public spending for its 2025 GDP (US$ 291 billion) is approximately US$ 1.1 billion, significantly above current allocations.

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[170] Figures refer to land-based ODA and reflect commitment amounts.
[171] Figures originate only from projects solely focused on solid waste management and plastics circularity, whose recipients are not private companies, and reflect commitment amounts. Multi-sector projects and multi-country projects are excluded due to the lack of clear funding delineation.
[172] Value is derived only from disclosed deals. While the online PCIT only features values from 2018 to 2024 at the time of writing, we updated the data to include additional deals from 2025 for the five countries.
[173] Consultation with the Federal Ministry of Environment and Lagos State Ministry of Environment and Water Resources.
[174] World Bank. (2026). What a Waste 3.0: Global Snapshot of Solid Waste Management toward Circularity until 2050

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Official Development Assistance

US$2.1 million in ODA was committed to Nigerian waste management between 2018 and 2024.[175] Projects consisted of grant-funded initiatives for plastic paving block production, collection points, and digital circular marketplace feasibility studies. Primary donor countries include Japan, Germany, and the Slovak Republic.

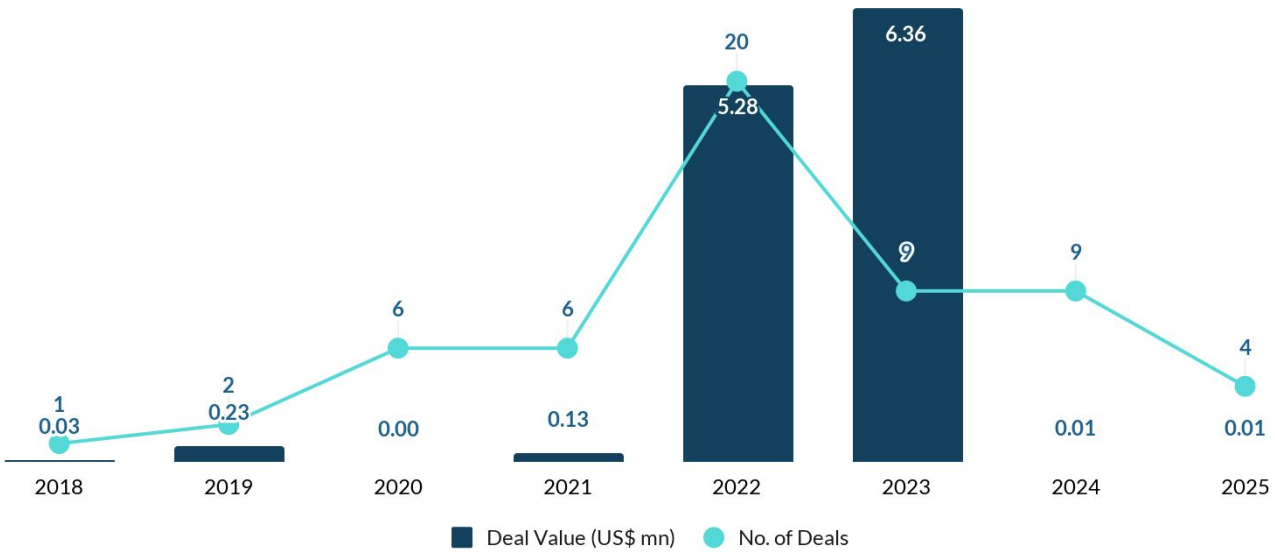
Development Finance

Our research identified eight DFI-funded projects with waste management components in Nigeria between 2018 and 2025. Out of the eight, only five focus solely on solid waste management but only one project is reflected in the development finance figure.[176] It is the grant from AFD for a technical assistance program to support the Federal Ministry of Environment in the implementation of its solid waste management framework.[177]

Private Sector Investments

Nigeria attracted US$ 12 million across 57 private investment deals in plastics circularity between 2018 and 2025. Deal volume peaked in 2022 with 20 transactions totaling US$ 5 million (Figure 11). Investment totals in 2023 stood at US$ 6 million, while other years recorded values under US$ 250,000.

FIGURE 11. NIGERIA: PRIVATE INVESTMENTS IN PLASTICS CIRCULARITY FROM 2018 TO 2025



NOTE:

Deals with undisclosed deal values are included in the deal count but excluded from deal value calculations.

SOURCE:

Plastics Circularity Investment Tracker.

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[175] OECD. (2024). Data platform on development finance for the sustainable ocean economy.
[176] There are four other DFI-funded projects solely focused on solid waste management, whereby two projects are captured in the private investment category as the projects' recipients are private companies and the other two projects are multi-country initiatives. The two multi-country initiatives are the loans from British International Investment (BII) and the DFC. They invested in a US$ 100 million combined Sustainable Development Goals (SDG) Outcomes Fund, which delivers programs in countries in Africa and Asia, including supporting the growth of Wecyclers, a social enterprise in Nigeria that collects, re-sells, and recycles plastic waste via a franchise model. Private Banker International. (2023). BII and US DFC contribute to a UBS-led SDG blended finance project.; BII. (2023). British International Investment makes first investment in development impact bonds.
[177] AFD. (2023). Nigeria: Technical Assistance to Support the Nigerian Federal Management Framework on Solid Waste.; URBA Consulting. (n.d.) Technical assistance to the Federal Ministry of the Environment to help implement solid and plastic waste management policies.

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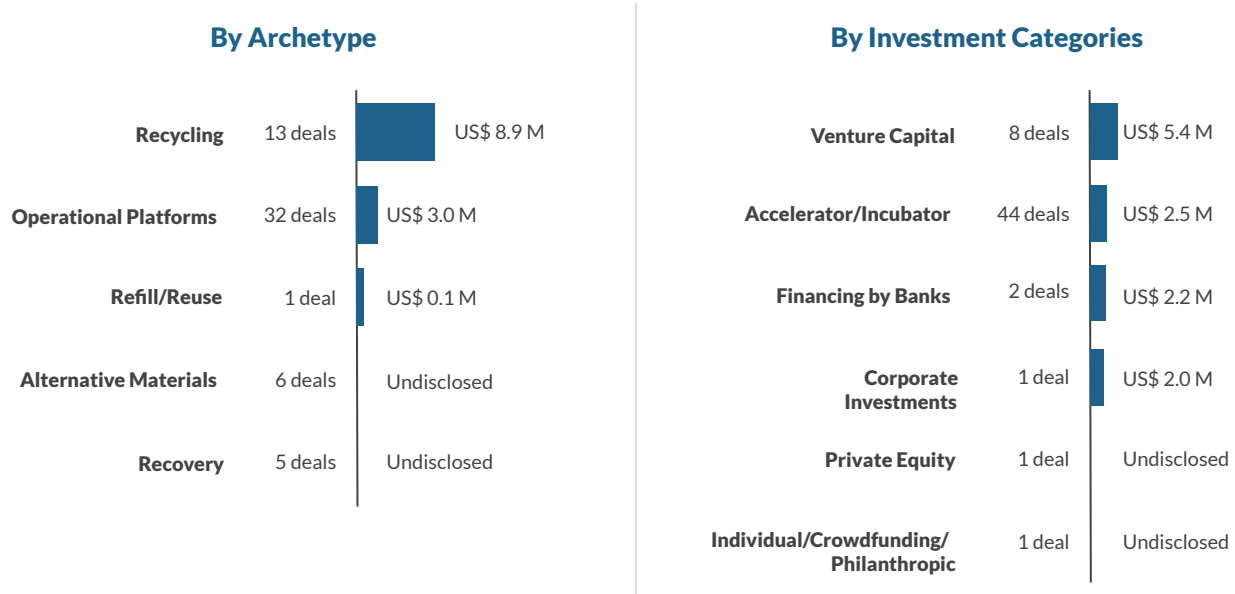
Recycling solutions represented 74% of total investment value, largely driven by investments in two large-scale recycling facilities, Wecyclers and Kaltani (Figure 12). Operational platforms, such as Scrapays, accounted for the largest share of deal count. Other investments supported waste-to-durables firms, such as Brickify and EcoNation, and digital collection models like Junkyard Live and Green Republic.

Venture capital accounted for 45% of total deal value, while accelerators and incubators represented 77% of deal count (Figure 12). Accelerator grant sizes clustered below US$ 500,000, targeting operational platforms and collection models (Figure 13). Debt financing was recorded in the form of a convertible loan from Norfund and a corporate bond from Unilever for Wecyclers, each valued at US$ 2 million or more, and a bank loan of US$ 10,000 for another mechanical recycler. [178]

FIGURE 12. NIGERIA: PRIVATE INVESTMENTS IN PLASTICS CIRCULARITY FROM 2018 TO 2025 BY ARCHETYPES AND INVESTMENT CATEGORIES



NOTE:

Deals with undisclosed deal values are included in the deal count but excluded from deal value calculations.

SOURCE:

Plastics Circularity Investment Tracker.

For definitions of the archetypes and investment categories, please refer to the Methodology document.

[165] Norfund. (2023). Norfund invests in plastic recycling in Nigeria.; Societe Generale. (2023). Building Together: Integrated Report 2022-2023.

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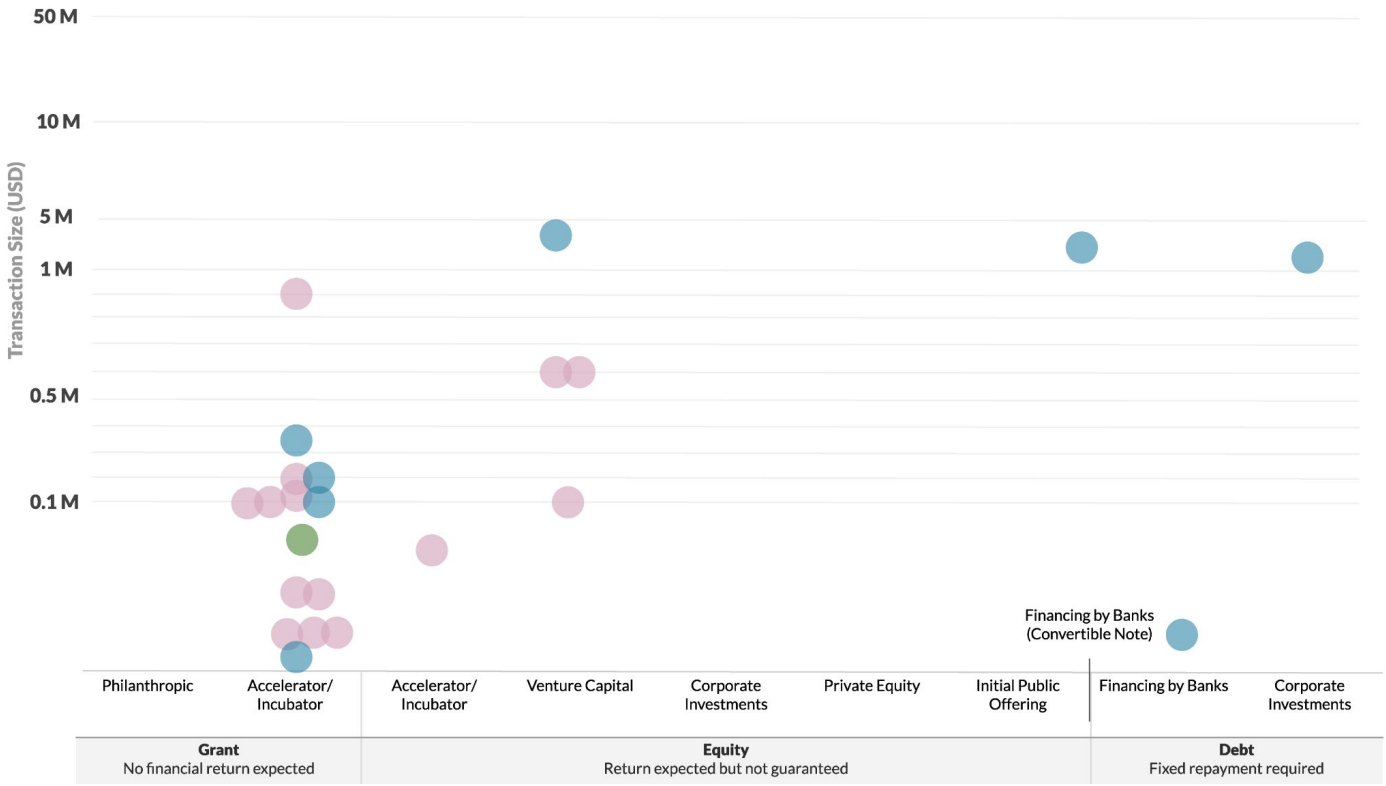
FIGURE 13. NIGERIA: PRIVATE INVESTMENTS IN PLASTICS CIRCULARITY FROM 2018 TO 2025 BY INVESTMENT CATEGORIES (DISCLOSED DEALS ONLY)



LEGEND:

Operational Platforms **Refill/Reuse** **Recycling**

NOTE:

The deals presented here are based on disclosed deals.

ASSUMPTIONS:

- Accelerator/Incubator deals that are specified as grant, award/prize, or prize money are categorized as grants, whereas those that are specified as equity-based accelerators are categorized as equity. Those involving convertible debt are placed between the equity and debt categories.
- All Corporate Investments, including mergers/acquisitions, joint ventures, and buyouts, are categorized as equity, whereas Corporate Investments specified as grants are categorized as grants.
- All Financing by Banks and Individual/Crowdfunding/Philanthropic Investments are categorized as debt, except for convertible notes, which are categorized between the equity and debt categories.
- All Venture Capital, Private Equity, and Initial Public Offerings are categorized as equity.

SOURCE:

Plastics Circularity Investment Tracker.

For definitions of the archetypes and investment categories, please refer to the Methodology document.

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Opportunities and Recommendations

To address Nigeria's distinct operational barriers, including high inflation, power grid instability, and fragmented oversight, catalytic funders can deploy targeted financial instruments to absorb initial risks and build the foundation required to bring in commercial investment at scale.

In our interviews, value chain actors cited key priorities across each value chain stage and the enabling environment. We matched these priorities with suitable catalytic capital mechanisms.

Collection and Sorting

- Direct public grant capital and blended infrastructure funds to build regional collection hubs equipped with weigh-scale digital logging software outside Lagos, targeting major secondary cities and regional aggregation nodes in the south-east (such as Anambra, receiving plastic flows from Enugu, Imo, and Abia) and north-west (such as Kano and Jigawa). As operators in these regions lack financial documentation and investment-ready business structures, grant capital is essential to establish collection infrastructure and provide technical assistance for financial record-keeping.
- Equip satellite collection hubs with commercial balers and industrial shredders through equipment matching grants and public-private partnership capital, allowing operators to compress plastic on site, drastically reduce freight transport costs to central factories, and build steady feedstock supply pipelines.

Recycling and Processing

- Direct donor grants and low-interest concessional loans toward on-site off-grid solar-diesel hybrid systems, commercial grid transformers, battery storage, and localized grid energy solutions. Blended financing allows recyclers to move away from expensive diesel generators following fuel subsidy removals, lowering operating costs and protecting factory profit margins.
- Deploy blended debt facilities and equipment co-matching grants to fund factory machinery upgrades, including hot-wash lines and automated optical sorters (for color and polymer separation), enabling recyclers to transition toward high-value manufactured end products, such as end-to-end food-grade PET processing lines utilizing EFSA/FDA-certified decontamination reactors and twin-screw extruders that can compete with imported virgin plastic.

Enabling Environment

- Provide technical assistance grants and inter-governmental policy support to align federal (NESREA) and state (such as LAWMA) environmental regulations, consolidating overlapping permits and agency inspections into a single, streamlined process to reduce compliance overhead for operators.
- Deploy policy technical assistance to strengthen enforcement of the National Environmental (Plastic Waste Control) Regulations and mandatory EPR fee contributions, ensuring all brand owners and producers contribute to the FBRA and unlocking guaranteed, institutional financing for collection.
- Provide technical and policy support to enforce domestic recycled content mandates, such as the required 25% recycled PET content in plastic packaging by 2028, stimulating domestic off-take demand and insulating local recyclers from volatile imported virgin polymer prices.

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Country Deep Dive: South Africa



SNAPSHOT

PLASTIC WASTE GENERATED

1.4 million tonnes

(Plastics SA, 2024 data)

COMPOSITION OF PLASTIC WASTE

- PP: 20%
- LDPE: 20%
- PET: 13%
- HDPE: 10%
- PVC: 10%
- Polyester: 7%
- PS: 3%
- Other plastics: 19%

(IUCN, 2018 data)



END OF LIFE FATES OF PLASTIC WASTE



Recycled	Sanitary landfills	Mismanaged
34%	32%	35%
(Plastics SA, 2024 data)	*(Plastics SA, 2024 data; CSIR, 2022)*	*(CSIR, 2022)*

PRIVATE INVESTMENTS IN PLASTICS CIRCULARITY (2018 TO 2025)

# of deals:	US$ of deals:
50	**80 million**

Top three investment archetypes:
Recovery (45.2% of total US$ investments),
Recycling (44.7%),
Digital Mapping (9%)

KEY POLICIES GOVERNING PLASTIC WASTE

- **National Waste Management Strategy (NWMS) 2020** (serves as the primary strategic framework for waste management)
- **National Environmental Management: Waste Act (NEMWA) EPR Regulations (2020)** (mandate EPR regulations)
- **Amendments to the Plastic Carrier Bags and Plastic Flat Bags Regulations** (mandate recycled content targets)

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South Africa's advanced financial infrastructure and diversified economy provide a stable foundation for investment. South Africa is an upper-middle-income economy with well-developed capital markets and banking sector, and GDP reaching US$ 427 billion in 2025.[179] The population of 63 million is projected to reach 77 million by the early 2040s, expanding the urban consumer market. However, economic stagnation and currency volatility are key risks. The macroeconomic landscape faces fixed investment rates of 14% (below market averages of 24%) and a poverty rate affecting 60% of the population.[180] While the local financial markets make it easy for capital deployment, the volatility of the South African Rand creates long-term investment risks.

Key highlights from our assessment of South Africa's regulatory landscape, state of plastic waste and waste management, and investment landscape include:



- South Africa is among the earliest African countries with a mandatory EPR system. However, PRO fragmentation and weak alignment with municipalities dilute funding for coordinated waste management infrastructure.



- Formal waste collection covers the majority of households, but with limited separation at source, most plastic waste collected ends up in landfills.
- The informal sector is responsible for recovering most of the plastic waste for recycling, mainly from landfill sites, which results in generally low-quality feedstock.
- Plastics recycling is dominated by a few large companies, with PET and HDPE having high recycling rates, and recyclers facing rising operating costs, particularly energy, utility, and labor costs, affecting their profit margins.
- Domestic demand for recycled content remains strong in key sectors, but growth has slowed due to economic stagnation and unenforced policies.



- South Africa secured the highest overall investment among assessed countries, though the absence of traditional debt reveals a major commercial funding gap.
- Consolidating PRO levies into a centralized collection fund and upgrading local conversion infrastructure represent high-value opportunities to de-risk the value chain.

[179] Empower Africa. (2026). Top 10 Largest Economies in Africa by GDP in May 2026 According to the IMF.
[180] Newsday. (2026). South Africa's fixed investment rate at dangerous levels,; World Bank. (2026). South Africa.

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PIONEERING COMPANY IN THE SPOTLIGHT:

WastePlan Demonstrates Private Equity Investment in South Africa's Waste Sector

WastePlan is a waste management company that aims to divert recyclable waste from landfills. WastePlan offers a zero waste to landfill approach by helping businesses optimize their waste streams through on-site waste management solutions, including waste collection and sorting, and access to advanced recycling facilities. In 2025, the company diverted 76% of its on-site clients' waste, recycling 58.7% and recovering 19.7% of that. WastePlan provides comprehensive waste data reporting to help clients meet compliance requirements and support them in achieving their environmental and social targets, and continues to find different ways to break the cycle of poverty, including investing in education programs.

WastePlan is a portfolio company of SAAD Investment Holdings, a private equity investor. SAAD focuses on providing expansion and replacement capital for businesses with a proven business concept and growth opportunities. The company's guiding principles for selecting and partnering with businesses include: proven leadership teams, innovative investment structures, capital-light and cash-generative models, South African-domiciled companies, and a willingness to co-invest alongside like-minded investors.

A related example, but one that is outside the plastics waste management sector, is the investment from Agile Capital, a black-owned South African investment firm that has invested in Seche Environment's South African operations, which focus on hazardous waste management. These investments show that investors are increasingly seeing waste management as essential infrastructure and an environmental-services investment that has to be financed even when broader economic conditions weaken, instead of treating it as a low-margin discretionary municipal function.

SOURCES:

Waste Plan. (n.d.) Waste management solutions & services.
Saad Investment Holdings. (n.d.) Strategic capital for sustainable growth.
Triga Ventures. (n.d.) Our Mentors.
African Sustainability Matters. (2026). Private equity turns to waste as Africa's infrastructure and circular economy investment gap widens.

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Regulatory Landscape

South Africa has national frameworks for waste management and plastics circularity and is among the earliest African countries with a mandatory EPR system.

The National Waste Management Strategy (NWMS) 2020 serves as the primary strategic framework for waste management under the Waste Act.[181] The NWMS establishes three pillars:

1. Waste minimization and landfill diversion.
2. Effective waste services, including source segregation and recycling drop-off centers.
3. Compliance, enforcement, and public awareness.[182]

The National Environmental Management: Waste Act (NEMWA) EPR Regulations (2020) established mandatory producer responsibility. Producers, brand owners, and importers must register with the Department of Forestry, Fisheries and the Environment (DFFE) and join an approved PRO scheme. There are reportedly dozens of PROs, with DFFE's official records showing 50 PROs currently registered in the paper and packaging sector.[183] Regulations set five-year collection and recycling targets alongside mandatory recycled content requirements for PET bottles, plastic carrier bags, and single-use packaging. Producer EPR fees are eco-modulated based on product recyclability.

National guidelines and regulatory frameworks prioritize informal sector integration, and can be strengthened with specific monitoring and evaluation mechanisms for effective implementation.

The National Waste Picker Integration Guideline outlines frameworks to integrate informal workers into municipal waste services and EPR systems.[184] The guideline defines integration as creating structured recycling systems that formalize informal collector roles, protect livelihoods, and incorporate workers into system design. However, specific monitoring and evaluation mechanisms have yet to be fully implemented.

Policy implementation is affected by weak and uneven enforcement capacity, as well as unclear division of responsibilities between municipalities and PROs.

Compliance monitoring at national and provincial levels faces staffing and resource constraints. Municipalities lack sufficient inspection officers to audit waste sites, address unpermitted disposal, and enforce local environmental bylaws, resulting in compliance gaps across the sector.

With regards to EPR specifically, municipalities hold statutory responsibility for local waste services under NEMWA but receive no direct EPR funding and lack formal frameworks to partner with PROs. Furthermore, the presence of 50 registered PROs has led to fragmented funding across duplicate collection projects rather than coordinated national infrastructure. Aligning PRO collection funds with municipal waste management plans remains a priority for value chain integration.

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[181] Centre for Science and Environment. (2023). Plastic Waste Management in Africa: An Overview.
[182] DFFE. (2020). National Waste Management Strategy.
[183] DFFE. (n.d.). EPR Search Registrations.
[184] DFFE. (2020). Waste Picker Integration Guideline For South Africa.

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Investment legislation and stable monetary frameworks facilitate foreign capital deployment, supporting a positive outlook for foreign investment, though currency volatility remains a key risk.

The Protection of Investment Act (2015) governs investment in South Africa, granting foreign investors national treatment equal to domestic firms without minimum capital entry thresholds.[185] Capital transfers and profit repatriation are overseen by the South African Reserve Bank (SARB) and authorized commercial banks.[186] While SARB policies maintain capital market stability, the Rand experiences exchange rate volatility relative to its emerging market peers due to global trading volumes and foreign bond holdings.[187]

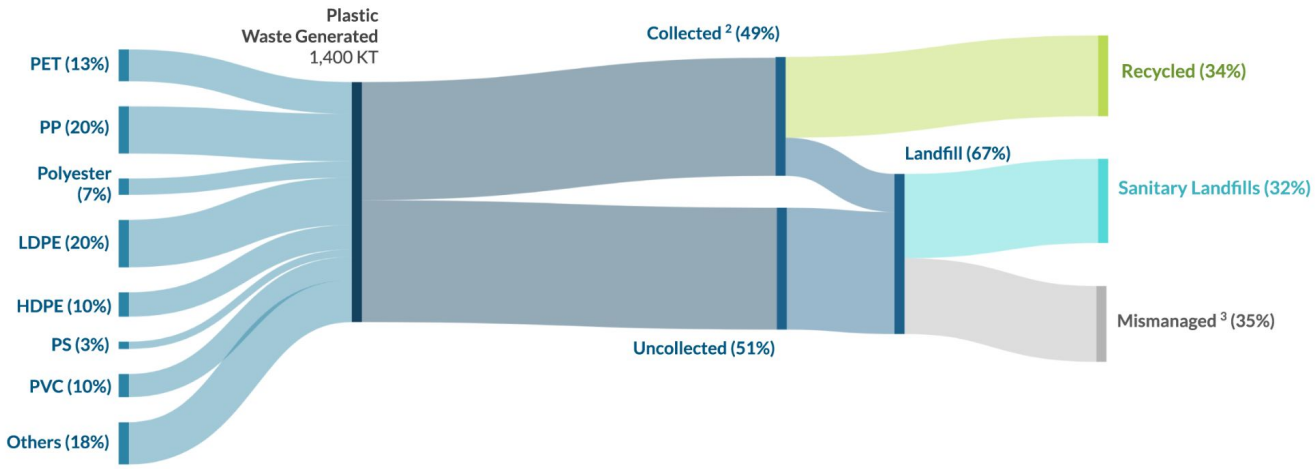
State of Plastic Waste and Waste Management

South Africa generated about 1.4 million tonnes of plastic waste in 2024, of which 34% was recycled.

PP and LDPE account for the largest polymer shares of generated waste, followed by PET and HDPE (Figure 14). Based on the UNCTAD data hub, South Africa imported 14,000 tonnes and exported 28,000 tonnes of plastic waste in 2024.[188] South Africa maintains established recycling infrastructure, but processors face rising electricity tariffs, labor overhead, feedstock contamination, and virgin polymer price competition.

South Africa represents the largest plastics conversion market in Sub-Saharan Africa. Domestic polymer production covers domestic PP and PET demand, while HDPE and LDPE resins are imported. Imported resins enter the market as non-recyclable multi-layered flexible packaging (laminated pouches, barrier films). Local packaging lines currently lack the conversion equipment required to process recyclable mono-materials at scale, resulting in approximately 35,000 tonnes of multi-layer flexible packaging entering landfills or the environment annually.

FIGURE 7. SOUTH AFRICA'S PLASTIC WASTE FLOW



NOTES:

Figures might not add up to 100% due to rounding. [1] Others consist of other types of polymers and synthetic rubber. [2] Refers to plastic waste collected for recycling, through formal and informal channels. [3] Mismanaged waste is estimated based on CSIR proportions of plastic waste generated ending up as open burning, land pollution and aquatic pollution.

SOURCES:

Plastics SA 2024 (2025), with plastic waste composition from IUCN and mismanaged estimates from CSIR.

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[185] UN Trade and Development (UNCTAD). (2015). Protection of Investment Act.; LexMundi. (2023). Global Foreign Investment Restrictions Guide.
[186] Lex Mundi. (2023). Global Foreign Investment Restrictions Guide.
[187] International Monetary Fund. (2019). Exchange Rate Volatility and Pass-Through to Inflation in South Africa.; M&J Africa. (2025). Why Foreign Direct Investment (FDI) in SA is Rising.
[188] UN Trade and Development. (2024). Data Hub.

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Collection and Sorting

Formal waste collection covers the majority of households, with formal source segregation accounting for a small portion of collected plastic waste.

Formal municipal waste services cover 61% of households weekly, while remaining households rely on communal dumps or irregular services.[189] Major metropolitan hubs (Gauteng, Western Cape, KwaZulu-Natal) maintain developed waste management infrastructure. However, 71% of generated plastic waste flows as mixed waste to landfills, while formal source segregation accounts for only 8% of collected plastic.[190] Municipalities face vehicle fleet and budget limits in implementing separate collection services.[191]

The informal sector is responsible for recovering most of the plastic waste for recycling, mainly from landfill sites, which results in generally low-quality feedstock.

Informal waste pickers recover 76% of plastic waste collected for recycling.[192] An estimated 60,000 to 215,000 waste pickers operate nationally,[193] retrieving 63% of secondary plastic directly from landfill sites.[194] Sourcing material primarily from landfills results in feedstock contamination and lower processing yields.

Recycling and Processing

Plastics recycling is dominated by a few large companies, with PET and HDPE having high recycling rates.

Plastics South Africa (Plastics SA) identified 292 recycling operations in 2024, processing 560,000 tonnes of plastic waste.[195] Large-scale recyclers represent 13% of total operators but process 61% of total volume (averaging over 3,600 tonnes annually). Over 50% of recycling facilities are located in Gauteng, sourcing material primarily from landfills. Processors in the Western Cape source higher shares of feedstock from municipal MRFs in Cape Town.

Plastics SA reports recycling rates of 44% for PET and 32% for HDPE.[196] Council for Scientific and Industrial Research (CSIR) data indicates that informal waste pickers recover mostly rigid mono-materials (81%), flexible mono-materials (15%), and multi-layer plastics (4%).[197]

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[189] Plastics SA. (2025). An analysis of the 2024 South African plastics industry data.
[190] CSIR. (2022). Reducing Plastic Pollution: A Comprehensive, Evidence-Based Strategy For South Africa.
[191] GreenCape. (2022). Circularity in Plastics in South Africa: Collection, Sorting and Aggregation to Enable a Circular Economy for Plastic Packaging in South Africa.
[192] CSIR. (2022). Reducing Plastic Pollution: A Comprehensive, Evidence-Based Strategy For South Africa.
[193] DFFE. (2020). Waste Picker Integration Guideline For South Africa.
[194] CSIR. (2022). Reducing Plastic Pollution: A Comprehensive, Evidence-Based Strategy For South Africa.
[195] Plastics SA. (2025). An analysis of the 2024 South African plastics industry data.
[196] Plastics SA. (2025). An analysis of the 2024 South African plastics industry data.
[197] CSIR. (2022). Reducing Plastic Pollution: A Comprehensive, Evidence-Based Strategy For South Africa.

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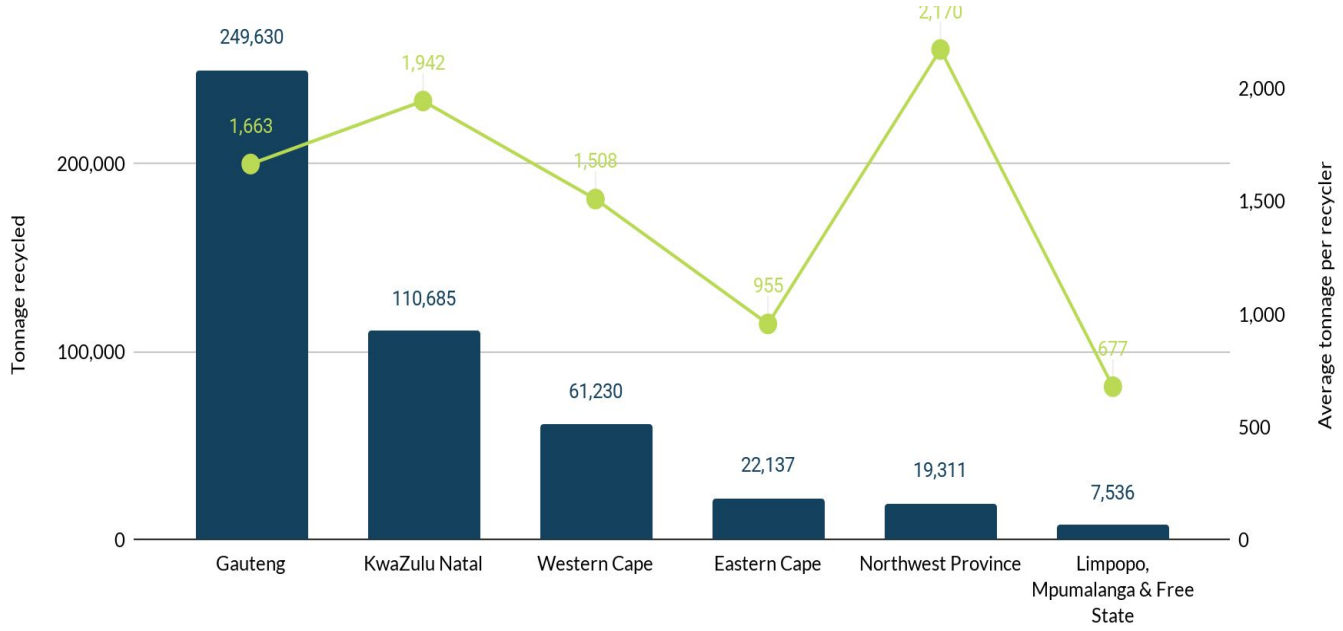
FIGURE 15. PROVINCIAL REPRESENTATION OF PLASTICS RECYCLERS (2024)



Recyclers are challenged with rising operating costs, particularly energy, utility and labor costs, affecting their profit margins.

National minimum wage adjustments (increasing by 5% to ZAR 30.23/hour) and rising electricity tariffs have increased processing overhead.[198] Operating margin compression limits facility expansion and equipment upgrades. Furthermore, recycling facilities face difficulty securing commercial property insurance, restricting access to bank debt requiring insured asset collateral, particularly for smaller-scale recyclers.

End Markets for Recycled Plastics

Demand for recycled plastics has grown in the past decade but has been slowing down in recent years due to the overall economic climate and lack of enforced enabling policies.

Secondary plastic conversion expanded by 67% since 2014, bringing average recycled content in new products to 22%.[199] Recycled PP is used in molded houseware and furniture, recycled PET supplies apparel fibers and rigid packaging, and recycled HDPE is used in piping and rigid containers. South Africa also maintains mature markets for 100% recycled products, including irrigation pipes and refuse bags.

Economic conditions and virgin polymer price competition have slowed secondary resin conversion. Mandatory recycled content targets exist for plastic carrier and flat bags under 2021 regulations (50% post-consumer recyclate required from 2023, 75% from 2025, and 100% by 2027),[200] driving a 45% recycling rate for mono-layer LDPE film.[201] For polyolefins and other resins, recycled content adoption remains voluntary and price-sensitive. Proposed design-for-recyclability standards have not yet been enforced.

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[198] Newsday. (2026). South Africa's minimum wage of R30.23 per hour killing employment.
[199] Plastics SA. (2025). An analysis of the 2024 South African plastics industry data.
[200] Government of South Africa. (2021). Forestry, Fisheries and the Environment on amendments to plastic bag regulations.
[201] Plastics SA. (2025). An analysis of the 2024 South African plastics industry data.

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Investment Landscape

As noted in Table 5, South Africa attracted the highest overall funding for plastics circularity and waste management among assessed countries. Private investment in plastics circularity totaled US$ 80 million between 2018 and 2025, directed primarily (90%) toward recovery and recycling solutions. Public expenditure aligns with international benchmarks for solid waste management, complemented by ODA investments. While foreign investors manage Rand currency volatility, financial infrastructure and policy frameworks support continued capital deployment.[202]

Despite sophisticated capital markets, South Africa's investment landscape is concentrated in large private equity buyouts and small incubator grants, leaving mid-sized independent recyclers underserved. ODA commitments in South Africa are primarily channeled into climate resilience, municipal infrastructure, and e-waste, rather than targeted de-risking mechanisms for commercial plastic recycling facilities. At the same time, commercial banks remain averse to funding recycling facilities due to uninsured property risks, load-shedding operational disruptions, and volatile virgin polymer price competition, resulting in zero recorded traditional commercial bank debt.

TABLE 5: OVERVIEW OF INVESTMENT SOURCES FOR PLASTICS CIRCULARITY AND WASTE MANAGEMENT IN SOUTH AFRICA

Funding Source	Total Funding Amount (US$ mn)	Data Period	Annual Average (US$ mn)
Government Spending	1,600	per year	1,600
Official Development Assistance[203]	66	2018 to 2024	9.4
Development Finance[204]	N/A	2018 to 2025	N/A
Private Sector[205]	80	2018 to 2025	10

Government Spending

Government spending on waste management totaled US$ 1.6 billion in 2024/2025 across municipal capital projects and metro operational budgets.[206] Based on World Bank benchmarks recommending 0.3% to 0.5% of GDP for solid waste management,[207] South Africa's target public spending for its GDP (US$ 427 billion) is approximately US$ 1.7 billion, placing current public expenditure near target benchmarks.

World Bank data across eight metropolitan municipalities indicates solid waste management represents a major expenditure line, with 40% to 50% of costs allocated to staffing, contracted services, and fleet maintenance.[208] Service charges generate 71% of municipal waste revenue, alongside operating grants (27%). Uncollected user fees present revenue shortfalls for local councils.

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[202] International Monetary Fund. (2019). Exchange Rate Volatility and Pass-Through to Inflation in South Africa.; M&J Africa. (2025). Why Foreign Direct Investment (FDI) in SA is Rising.
[203] Figures refer to land-based ODA and reflect commitment amounts.
[204] As multi-sector projects and multi-country projects are excluded due to the lack of clear funding delineation, the figures were not recorded.
[205] Value is derived only from disclosed deals. While the online PCIT only features values from 2018 to 2024 at the point of writing, we had updated the data to include additional deals in 2025 only for the five countries.
[206] National Treasury. (2025). Annexure to Media Statement - 2025-26 MTREF.
[207] World Bank. (2026). What a Waste 3.0: Global Snapshot of Solid Waste Management toward Circularity until 2050.
[208] World Bank. (2023). Waste Not, Want Not - A Diagnostic of Solid Waste Management in South African Metros.

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Secondary municipalities face smaller operating budgets, technical staffing limits, and uncollected user fees, relying heavily on national grant allocations. National grant programs, such as DFFE's Recycling Enterprise Support Programme, provide up to ZAR 5 million for equipment procurement.[209] Public-private co-financing for municipal infrastructure is subject to procurement requirements under the Municipal Finance Management Act. Recent budget models introduce performance-linked allocations, requiring waste revenue to be reinvested in local collection infrastructure.[210]

Official Development Assistance

US$ 66 million in ODA was committed to South African waste management between 2018 and 2024, mostly as loans through the Green Climate Fund for water reuse resilience programs.[211] Other projects targeted e-waste and waste-to-energy initiatives. Primary donor countries include Switzerland, Japan, and France.

Development Finance

Our research identified nine DFI-funded projects with waste management components in South Africa between 2018 and 2025. Of the nine, only two projects are solely focused on solid waste and recycling; however, as both loans also fund projects in other countries, the figures have been excluded. The first is a US$ 30 million loan from the International Finance Corporation (IFC) to construct an Averda plastics recycling plant (12,000 tonnes/year capacity) to process HDPE and LDPE.[212] Part of the loan is also used to support Averda's other existing sustainable waste management projects in Oman and Morocco. The second project is a US$ 45 million loan from the DFC to support Averda recycling facilities across South Africa, Morocco, and India.[213]

Private Sector Investments

South Africa attracted US$ 80 million across 50 private investment deals in plastics circularity between 2018 and 2025. Total deal value peaked in 2019 (US$ 37 million) and 2024 (US$ 35 million), while deal volume peaked in 2022 with 15 transactions (Figure 16).

[209] DFFE. (2025). From waste to wealth: building South Africa's circular economy.; Dream Team Capital. (n.d.). Recycling Grant of up to R5million (non-repayable).
[210] Infrastructure News. (2026). The 2026 Budget And The Future Of Waste Management In South Africa,
[211] OECD. (2024). Data platform on development finance for the sustainable ocean economy.
[212] Averda. (n.d.). Averda using IFC loan to build plastic recycling facility in South Africa.
[213] Averda. (n.d.). Averda secures $45 million US international development financing to develop plastics recycling facilities in emerging markets.

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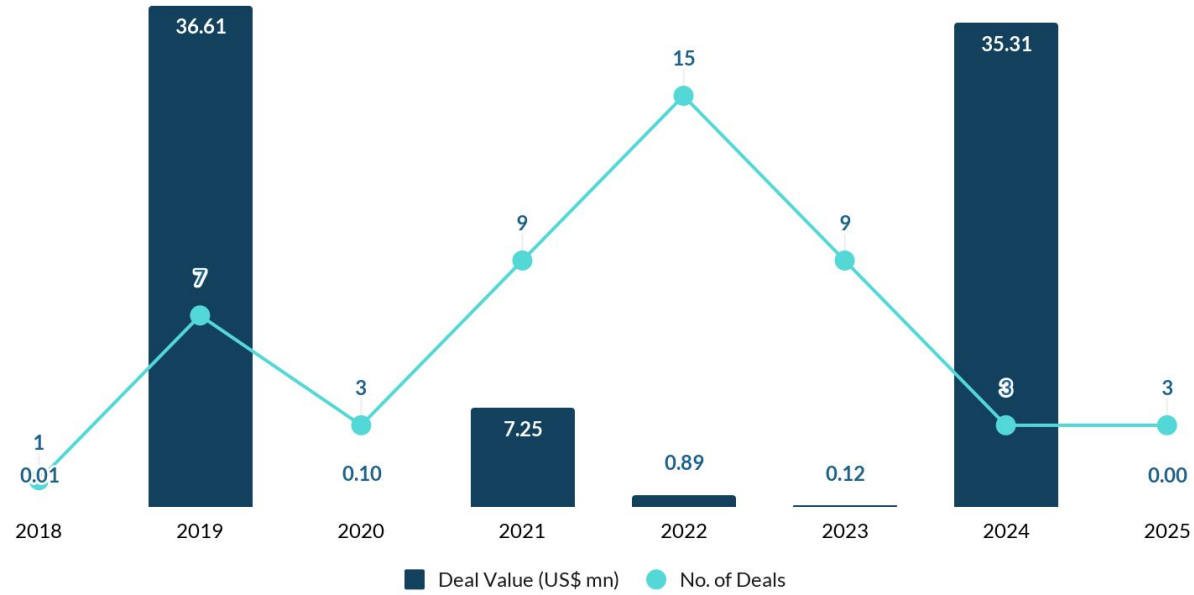
FIGURE 16. SOUTH AFRICA: PRIVATE INVESTMENTS IN PLASTICS CIRCULARITY FROM 2018 TO 2025



NOTE:

Deals with undisclosed deal values are included in the deal count but excluded from deal value calculations.

SOURCE:

Plastics Circularity Investment Tracker.

Downstream recovery and recycling solutions captured 90% of total private investment value across 19 deals (Figure 17). The highest investment value went to a waste management company, while the second highest investment value went to a recycling operator deploying automated AI sorting technologies (Figure 18). Digital marketplace and operational platforms (e.g., Regenize, Kudoti, Teliospace) represented the largest share of deal count.

Corporate investments represented 46% of total deal value, private equity accounted for 43%, and accelerators/incubators represented 66% of deal volume (Figure 17). Accelerator grants clustered below US$ 500,000, funding operational platforms, refill models, and waste-to-durables startups (Figure 18). Larger equity transactions (over US$ 1 million) supported digital mapping, recovery, and mechanical recycling firms. Zero traditional commercial bank debt was recorded.

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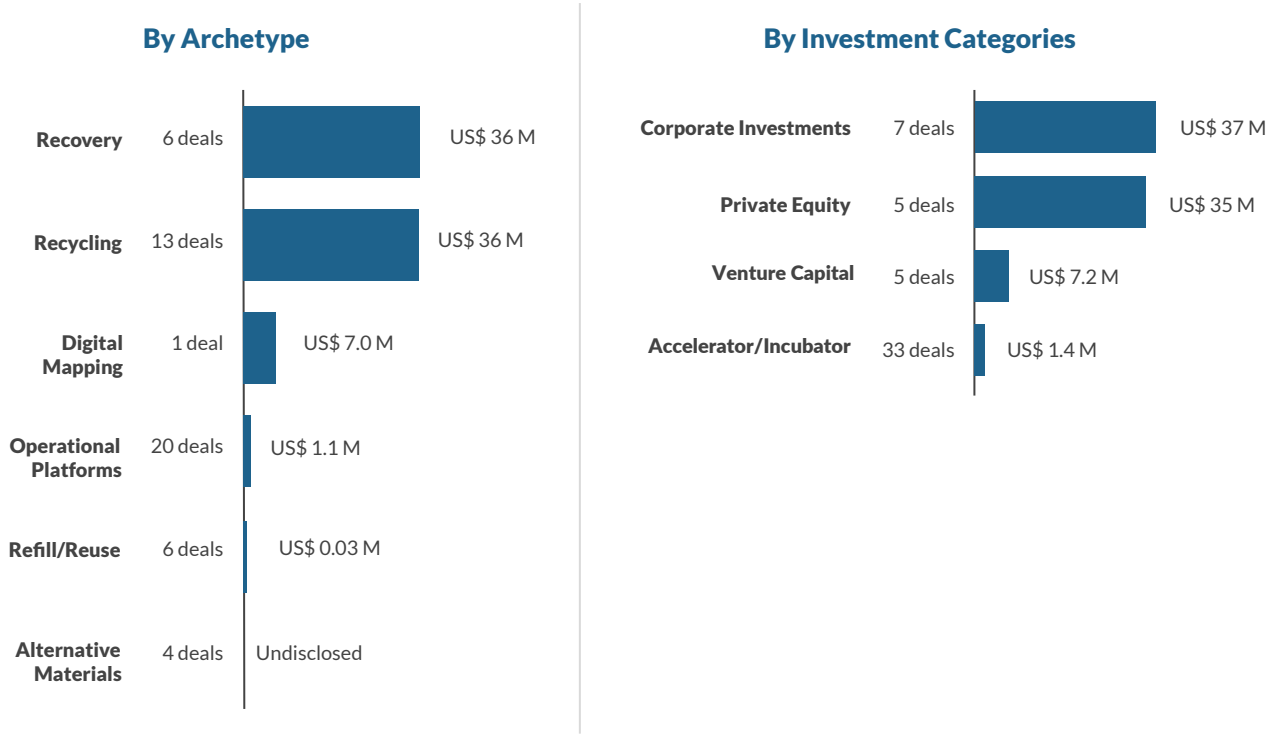
FIGURE 17. SOUTH AFRICA: PRIVATE INVESTMENTS IN PLASTICS CIRCULARITY FROM 2018 TO 2025 BY ARCHETYPES AND INVESTMENT CATEGORIES



NOTE:

Deals with undisclosed deal values are included in the deal count but excluded from deal value calculations.

SOURCE:

Plastics Circularity Investment Tracker.

For definitions of the archetypes and investment categories, please refer to the Methodology document.

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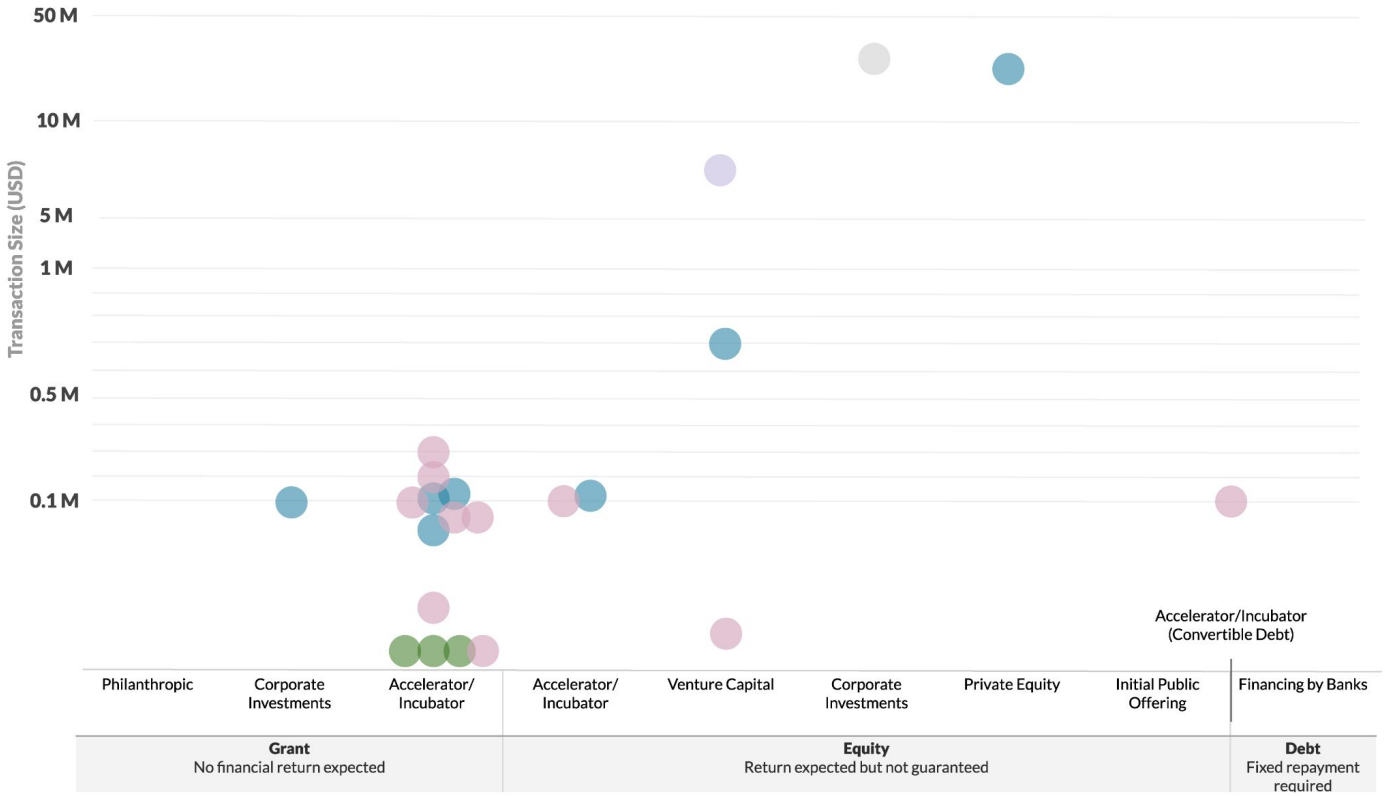
FIGURE 18. SOUTH AFRICA: PRIVATE INVESTMENTS IN PLASTICS CIRCULARITY FROM 2018 TO 2025 BY INVESTMENT CATEGORIES (DISCLOSED DEALS ONLY)



LEGEND:

Digital Mapping **Operational Platforms** **Recovery** **Refill/Reuse** **Recycling**

NOTE:

The deals presented here are based on disclosed deals.

ASSUMPTIONS:

- Accelerator/Incubator deals that are specified as grant, award/prize, or prize money are categorized as grants, whereas those that are specified as equity-based accelerators are categorized as equity. Those involving convertible debt are placed between the equity and debt categories.
- All Corporate Investments, including mergers/acquisitions, joint ventures, and buyouts, are categorized as equity, whereas Corporate Investments specified as grants are categorized as grants.
- All Financing by Banks and Individual/Crowdfunding/Philanthropic Investments are categorized as debt, except for convertible notes, which are categorized between the equity and debt categories.
- All Venture Capital, Private Equity, and Initial Public Offerings are categorized as equity.

SOURCE:

Plastics Circularity Investment Tracker.

For definitions of the archetypes and investment categories, please refer to the Methodology document.

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Opportunities and Recommendations

South Africa's rising labor costs, high municipal utility tariffs, frequent grid disruptions, difficulty securing commercial property insurance, and PRO fragmentation make it necessary for DFIs and philanthropic funders to first absorb early-stage risk and help build the foundation required to bring in commercial investment at scale.

In our interviews, value chain actors cited key priorities across each value chain stage and the enabling environment. We matched these priorities with suitable catalytic capital mechanisms that can help de-risk and unlock private investment.

Collection and Sorting

- Direct public infrastructure grants, blended finance, and public-private partnership capital to expand MRFs equipped with commercial balers, industrial shredders, weigh-scale digital logging software, and localized sorting hubs in secondary municipalities outside major metropolitan areas like Cape Town.
- Direct capital investment and matching grants toward upgrading existing MRFs with automated optical sorters (for color and polymer separation), sorting conveyors, and 3D separators to improve processing efficiency, drawing on models like the Kraaifontein Waste Management Facility, which achieved a 30% efficiency increase over manual sorting.
- Deploy grant funding and dedicated infrastructure support to organize informal waste collectors, funding sorting space, commercial balers, industrial shredders, weigh-scale digital logging software, health and safety gear, land tenure security, and vehicle or fuel subsidies to secure a steady supply of clean feedstock.

Recycling and Processing

- Direct concessional debt and matching grants toward on-site off-grid solar-diesel hybrid systems, commercial grid transformers, energy-efficient equipment, and green energy solutions (such as energy wheeling) to reduce utility overhead, navigate municipal electricity tariff hikes, and enable continuous plant operations during grid load shedding.
- Deploy blended debt facilities and capital equipment grants to replace aging, inefficient processing lines with modern hot-wash lines, automated optical sorters (for color and polymer separation), high-efficiency twin-screw extruders, and pelletizing technology, lowering operational costs and increasing processing yields.
- Direct impact investment and technical assistance grants toward EFSA/FDA-certified decontamination reactors, twin-screw extruders, specialized processing technology, and international decontamination certifications to expand local output into high-value, high-grade recyclate (such as food-grade PCR) and advanced filtration products.

Enabling Environment

- Deploy policy technical assistance to establish a single, co-financed collection fund supported by all PROs, ensuring steady, synchronized funding for municipal MRFs and buy-back centers while allowing PROs to compete on downstream product development.
- Provide regulatory and technical support to strengthen enforcement of mandatory producer recycled content targets, insulate local recyclers from volatile virgin plastic prices, implement mandatory separation at source, and enforce standardized design-for-recyclability guidelines.

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Conclusion

This research assessed the investment landscape for plastics circularity across Algeria, Egypt, Kenya, Nigeria, and South Africa. The report examined the state of plastic waste management, regulatory frameworks, market dynamics, and private and public investment sources for waste management and plastics circularity to identify critical funding gaps and opportunities.

The findings highlight a clear gap between the scale of plastic waste and the capital deployed to address it. Sub-Saharan Africa's plastic consumption is projected to increase sixfold by 2060 compared to 2019 levels. Despite generating 8% of plastic waste entering rivers globally and mismanaging 80% to 90% of its plastic waste, Africa received only 0.2% of global private circularity investments between 2018 and 2024. Without intervention, plastic pollution could result in annual economic losses of US $13 billion across sectors such as agriculture and tourism, in addition to severe environmental and public health impacts across the African continent. At the same time, geographical proximity to Europe and the EU PPWR present export opportunities for African recyclers to meet mandatory recycled content standards and address plastic pollution.

However, the investment landscape across all five markets is characterized by a "missing middle" for growth-stage recyclers. Private capital remains split between early-stage grants and a handful of very large transactions over US$ 10 million. This creates a challenge for growth-stage recyclers requiring between US$ 1 million and US$ 5 million to expand their operations. Commercial banks view the sector as high risk due to a number of operational and macroeconomic barriers. These barriers include low feedstock quality, unreliable power supply, and regulatory fragmentation.

To overcome these structural challenges and bridge the investment gap, catalytic capital must enter the market first. By deploying targeted grants, concessional low-interest loans, credit guarantees, and blended finance structures, DFIs, philanthropic funders, and impact investors can absorb early-stage risks and fund foundational infrastructure, including regional collection hubs, pre-treatment facilities, and on-site hybrid energy systems. This initial catalytic intervention is essential to overcome the existing macroeconomic, operational, and capital barriers in the five countries and make recycling businesses stable and secure, laying the foundation for more commercial, return-seeking private investments at scale.

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