

## **Assessment of Segregated Recyclable Waste Diverted by Informal Waste Pickers in Kenya and Export Revenue Generated by Aggregators/Exporters (2023–2025 Estimates)**

Kenya's recycling system is heavily reliant on the *informal sector* (waste pickers, collectors, aggregators, and small traders), which diverts the vast majority of recyclable materials from landfills/dumpsites or prior home collection. Formal recycling plants (e.g., Mr. Green Africa, TakaTaka Solutions, PETCO now PAKPRO Kenya members) source 80–90% of their input from this informal chain. The main materials diverted are plastics (PET bottles, HDPE/PP rigids, LDPE films), paper/cardboard, and scrap metals.

### **1. Estimated Annual Volume Diverted by Informal Sector**

Kenya generates ~8–9 million tons of municipal solid waste (MSW) per year (~22,000–25,000 tons/day, ~60% urban). Recyclables (dry fraction) comprise ~25–35% of MSW, but actual diversion is lower due to low collection rates.

<b>Material Category</b>	<b>Estimated Annual Volume Diverted by Informal Sector (tons/year, 2023–2025 avg.)</b>	<b>Key Notes &amp; Sources</b>
<b>Plastics (total)</b>	150,000 – 250,000	~60–70% PET/HDPE/PP. Informal sector diverts ~80–90% of recycled plastics. PET alone: ~30,000–50,000 tons (PETCO & partners collect ~10,000–20,000 tons/year, mostly informal-sourced).
<b>Paper/Cardboard</b>	100,000 – 150,000	High value; often collected from businesses/streets.
<b>Metals (ferrous/non-ferrous)</b>	80,000 – 120,000	Scrap metal has strong export demand.
<b>Other (glass, textiles)</b>	20,000 – 40,000	Lower volumes.
<b>Total Recyclables Diverted</b>	<b>350,000 – 560,000 tons/year</b>	Represents ~20–30% of total urban MSW diverted from landfill (formal collection ~40–50%, but most recyclables recovered informally at source or dumpsites like Dandora). Informal pickers (~50,000–100,000 people nationwide) handle the bulk.

Diversion Rate Context: Informal pickers divert ~20–30% of urban waste overall (mostly recyclables), preventing it from reaching final disposal. National recycling rate for plastics is ~20–30% (higher for PET ~40–50%), almost entirely informal-driven.

Trend: Volumes rising 5–10%/year with population growth and EPR schemes, but fragmented data (no central reporting).

## 2. Export Dynamics and Revenue Generated by Buyers/Aggregators Who Resell Abroad

Post-China ban (2018), Kenya's recyclable exports shifted to India, Turkey, Vietnam, Pakistan, and UAE. Large aggregators/exporters (e.g., in Mombasa port) buy baled material from informal chains, clean/sort minimally, and export in containers.

Material	Main Export Destinations	Avg. Export Price (2023–2025, USD/ton FOB Mombasa)	Estimated Export Volume (tons/year)	Estimated Annual Export Revenue (USD million)
<b>PET bales/flakes</b>	India, Turkey, Vietnam	400\$–600\$	20,000–40,000	10\$–25\$
<b>HDPE/PP bales</b>	India, Pakistan, UAE	500\$–800\$	30,000–60,000	20\$–45\$
<b>LDPE/LLDPE film</b>	India, Vietnam	300\$–500\$	40,000–80,000	15\$–40\$
<b>Scrap Metals</b>	India, Pakistan, China	300\$–500\$ (ferrous), 1,500–2,500 (non-ferrous)	60,000–100,000	40\$–80\$
<b>Paper/Cardboard</b>	India	150–250	50,000–80,000	10\$–20\$
<b>Total Estimated</b>			200,000–360,000	<b>95\$–210\$ million</b>

Revenue Notes:

This is gross FOB value at export (what Kenyan exporters/aggregators receive).

Margins for exporters: 20–40% after buying from informal sector at ~50–70% of export price (e.g., PET bought locally at KSh 20–40/kg ≈ \$150–300/ton, exported at \$500+/ton).

~60–80% of diverted recyclables are exported in baled form (limited local conversion capacity except for some PET-to-fiber and HDPE pipe production).

Revenue fluctuates with global prices (e.g., PET spiked in 2022–2023, dropped in 2024–2025 due to virgin resin oversupply).

### **3. Value Chain Flow and Informal Sector Role**

1. Waste pickers/CBOs (Community based organisations) → sell to small aggregators (KSh 20–50/kg for plastics).

2. Aggregators bale & sell to large traders/exporters (KSh 40–80/kg).

3. Exporters ship abroad (mainly India for plastics, where further processed into flakes/fiber).

- Informal sector captures ~30–50% of total value; the rest goes to transporters, exporters, port fees.

- Estimated informal sector earnings: \$100–200 million/year (daily income per picker ~KSh 300–800).

### **4. Challenges & Trends (2025 Context)**

Post-2024 plastic bag ban extensions and EPR (Extender Producer Responsibility) rules (Sustainable Waste Management Act) are formalizing parts of the chain, but exports remain dominant.

Local processing growing (e.g., new PET bottle-to-bottle plants), potentially reducing exports 10–20% by 2030.

Data gaps: No official export stats disaggregated by "informal-sourced"; estimates triangulated from PETCO, Mr. Green, World Bank/UNEP reports, and trade data.

The informal sector diverts ~400,000 tons/year of recyclables on average, generating \$100–200+ million in export revenue for the aggregator/exporter level — a critical but undervalued pillar of Kenya's circular economy, supporting livelihoods for tens of thousands while preventing massive landfill overload. Integration via EPR and tech (e.g., apps for fair pricing) could double volumes and fairness by 2030.