

PET PLASTICS circular economy roadmap for Ghana (2025-2028)

A practical plan to keep PET drink bottles out of drains, dumps, and open burning by improving collection, reducing contamination, and building local reuse markets.

STARTING POINT IN THE MAPPED SYSTEM

- An estimated 177,000 tonnes of PET resin enter the market annually, mainly for single-use beverage bottles.
- Only about 35% is collected after use (about 36,400 tonnes), and about 14% is effectively recycled (about 14,500 tonnes).
- About 67,600 tonnes is lost through open dumping, drainage leakage, or informal incineration.
- Quality is a major bottleneck: over 40% of collected PET is rejected or downgraded due to labels, colours, caps, and contamination.
- Uncollected PET has a carbon footprint estimated at over 190,000 tonnes CO₂e annually, and recovery depends heavily on informal collectors, mainly youth and women.

KEY METRICS AT A GLANCE

| Metric | Baseline | Target |
|---|----------------|-----------------|
| PET collection rate | ~40% (2024) | >=75% (2028) |
| PET recycling rate | ~9% (2024) | >=30% (2028) |
| PET leakage to environment | ~36% (2024) | <=10% (2028) |
| Recycled PET content in bottles | <3% (2024) | >=25% (2028) |
| Informal collector average daily income | ~GHS 22 (2024) | >=GHS 40 (2028) |
| Cooperative membership among collectors | ~8% (2024) | >=50% (2028) |

PRACTICAL PILOTS (EVIDENCE FOR SCALE)

| Metric | Baseline | Target |
|--|---|---|
| Decentralised PET buy-back and sorting hubs (Techiman and Ashaiman) | Create safe recovery points, register collectors, and stabilise payments and offtake. | 30+ tonnes recovered; 120 collectors registered; 25% litter drop. |
| Eco-design demonstration and PET product standardisation (Accra Metro) | Work with brands to improve bottle design for recyclability and raise flake yield. | 3 prototypes tested; 1 adopted; 20% increase in flake yield. |
| rPET integration in local manufacturing (Kumasi and Tema) | Test bottle-to-bottle or flake-to-pre-form reuse using Ghana-sourced rPET. | 1 rPET batch certified; up to 25% recycled content in products. |
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TIMELINE, STEP BY STEP

Two PET hubs operational; 300 collectors formalised; eco-design pilots launched; separation campaigns in five districts.

2025-2026



2026-2027

PET hubs expanded to five additional cities; QR-coded sack tracking introduced; two recyclers supported toward certification; PET integrated into five district plans.

2027-2028



PET integrated into all 261 MMDAs; Recovery and Innovation Fund operational; rPET labelling rolled out; bottle-to-bottle

WHAT CHANGES BY 2028

- What changes by 2028
Collection and sorting shift from scattered recovery to structured buy-back hubs in high-leakage zones.
- Recycling rises through cleaner feedstock, better sorting, and dedicated processing capacity.
- Packaging redesign reduces contamination so more of what is collected becomes usable rPET.
- Local manufacturing begins using certified rPET, including steps toward bottle-to-bottle reuse.

FINANCING AND SCALING



Total indicative cost across three years is about **\$3.45 million**, covering hub infrastructure, digital tracking, design pilots, a Recovery and Innovation Fund, awareness campaigns, certification support for **two recyclers**, a national rPET labelling and compliance system, and a **bottle-to-bottle demonstration line**.