

LDPE and LLDPE circular economy roadmap for Ghana (2025-2028)

A practical plan to cut thin film plastic leakage by improving recovery, raising value, and expanding local processing.

STARTING POINT IN THE MAPPED SYSTEM

- Thin films used in sachet wrappers, carrier bags, wrap, and liners are among the most visible plastic litter.
- Fewer than 1 in 10 used sachets or bags enter any recycling stream, so most waste remains unmanaged.
- Leakage is high, roughly 1 in 2 pieces enter drains, land, or waterways, and thin films clog drainage and contribute to flooding.
- Value is low and disposal is harmful, collectors earn GH¢ 0.10-0.20 per kg, and more than 60% of collected films are burnt or dumped.

KEY METRICS AT A GLANCE

Metric	Baseline	Target (by Year 4)
Diverted from open environment	~5,000 tonnes/year nationally (estimated)	≥20,000 tonnes/year
Leakage density in drain hotspots	>50 units/m ² in public drain hotspots	≤10 units/m ² in targeted districts
Recycled content in LDPE packaging	<1% in low-cost packaging	≥10% in 3 major application areas
Burning or dumping rate for thin films	>60% of thin films collected are burnt or dumped	≤15% in intervention zones
Collector price for LDPE waste (per kg)	GH¢ 0.10-0.20	GH¢ 0.50-0.80
Workers accessing social protection	Virtually none (<5%)	≥40% registered for health/SSNIT

PRACTICAL PILOTS (EVIDENCE FOR SCALE)

Pilot	Purpose	Proof point (pilot target)
Sachet Take-Back (Accra, Kumasi)	Urban flooding, street litter, low informal value	3 tonnes/month, 1,000+ collectors
Densification hubs (Techiman, Cape Coast)	Transport economics, leakage at markets	2 tonnes/month/site, GH¢400+ incomes
Mobile washing and pelletising (Kumasi, Suame)	Low-quality pellets, limited decentralised processing	1 tonne/month clean pellets
Exchange booths, proposed (Cape Coast, Tamale)	Public litter, low public engagement	100,000 bags, 50% repeat users
Film-to-tile micro-enterprise, proposed (Ashaiman, Sekondi)	Safer, formalised upcycling and market access	5,000 tiles/site, formal offtake

TIMELINE, STEP BY STEP

20-30 hubs, 3 pilot segregation districts, 2 agglomerators, 20% cooperative integration, awareness launched.



2026-2027

50 hubs, 3 city-level recycling lines, EPR implemented, reuse pilots, tax breaks, district levies activated.

2025-2026



5-10 full LDPE plants, labelling mandates, public procurement, refill scaling, policy review, CE curriculum embedded.

2027-2028



WHAT CHANGES BY 2028

50+ collection hubs and densification points, plus exchange and reward schemes, make recovery convenient and improve feedstock quality.

Agglomeration, washing, and pelletising expand capacity so recycled LDPE becomes cleaner, consistent, and usable for manufacturers.

EPR and levy enforcement, recycled content labelling, and reuse and refill pilots strengthen demand, while cooperatives gain training, PPE, and social protection pathways.

FINANCING AND SCALING



Indicative investment needs are estimated at **USD 8.5-10 million** over a **3-4-year** window, mainly for collection hubs, agglomerator and pelletiser lines, training and safety for **2,000** informal actors, reuse and refill pilots, recycled content trials, behaviour change, **EPR** traceability and levy enforcement, and **MRV** systems.

