



Recognizing & Integrating Malaysia's Informal Sector

A Pillar for Effective EPR Implementation

Roberto Benetello | CEO MAREA | 9 February 2026



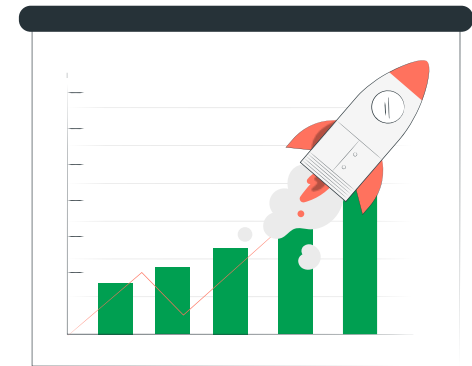
Introduction & Context



15-20 million informal waste workers in the Global South actively collect and divert waste, providing essential public and environmental services. ^[1]



The informal sector has been recycling plastics since the 1980s and currently collects **31 million** tonnes per year^[2], accounting for close to **60% of** global plastics recycled. ^[3]



A majority of informal waste workers rely on waste picking for their livelihood, with more than **50%** experiencing food insecurity and **58%** are unsure of their next-day expenses. ^[4]



OVERVIEW

The informal sector is highly critical in the existing collection flows of recyclables in the Global South - including in Malaysia - but face extreme economic pressures and instability.

Sources:

1. Gutberlet, 2023.
2. University of Leeds and GRID-Arendal (2024). Increasing the visibility of the informal waste sector as part of a pathway towards a Just Transition. GRID-Arendal, Norway
3. UNDP (2023). Unsung heroes: Four Things Policymakers Can Do To Empower Informal Waste Workers
4. Fair Circularity Initiative, Systemiq (2024). A living income for the informal waste sector: A methodology to assess the living income of waste workers in the context of the Global Plastics Treaty

Informality: **The Norm in the Global South**

Buenos Aires, Argentina

95,153 “**cartoneros**” or informal waste pickers operate nationally, diverting about **400 MT** of recyclables daily in the city to sell to “**galponeros**”/material collectors.

Delhi, India

The “**kabariwalla**”, informal waste buyers purchase recyclables from at least **50,000 to 150,000 informal waste pickers** and resell it to a chain of small-scale industries of recycling.

Surabaya, Indonesia

Over **5,000 waste banks** exist for communities to deposit their waste, to be sold later to the “**pengepul**”, informal waste entrepreneurs that resell to recycling companies.

Informal collection exists here as there is:

- ✓ **Rapid urbanization** where recycling systems have not evolved as centrally planned infrastructure,
- ✓ **Residual monetized value** for solid waste materials (which is often fluctuating),
- ✓ **Physical access** of recyclables to waste pickers,
- ✓ **An urban population** facing financial and social insecurity leading to willingness to perform waste picking.

KEY INSIGHTS:

In this region, informal collectors are **not marginal actors** – they are often the **primary interface** between waste generation and recycling.

Why This Discussion Is Critical



Mandatory EPR
expected in Malaysia
by 2030



Recycling targets are
increasing **faster**
than system capacity



Collection is the
binding constraint



Early-stage interception
determines EPR success

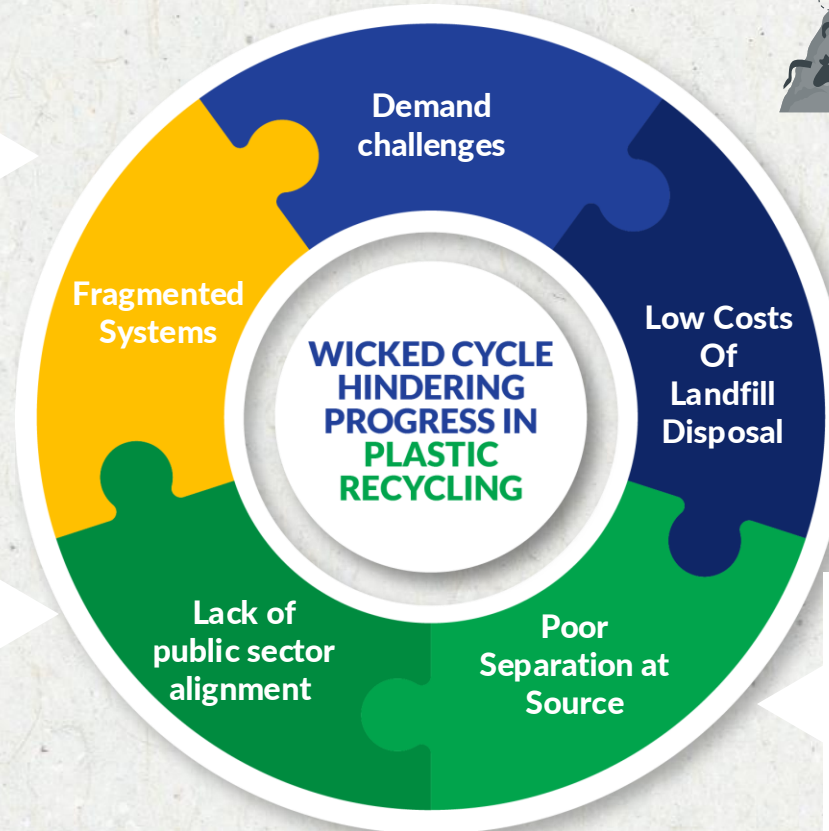
Malaysia's Post-Consumer Recycling Reality

- **Act 672, facilitating federal governance of municipal solid waste management** only applies in seven Peninsular states.
- Non-Act 672 areas operate under local, state-level bylaws and the Local Government Act 1976 – leading to inconsistencies in policies.



- Municipal solid waste management actors **prioritise collection and disposal, and not separation.**
- Poor organic waste treatment facilities dampens efforts in waste separation at source and diversion..

Low local demand for recycled plastics across all key resins resulting in reduced Collection-for-Recycling rate, reducing interest from formal collectors.



- **The current gate fee in Malaysia** is much lower than rates in Viet Nam and Thailand.
- It is therefore much **cheaper to dispose of waste in landfills** than to invest in further processing.

- **Low recyclable quality** due to heavy contamination, as householders do not separate recyclables at source and no enforcement is conducted.
- This deters formal collectors, **preventing investment in collection and sorting.**

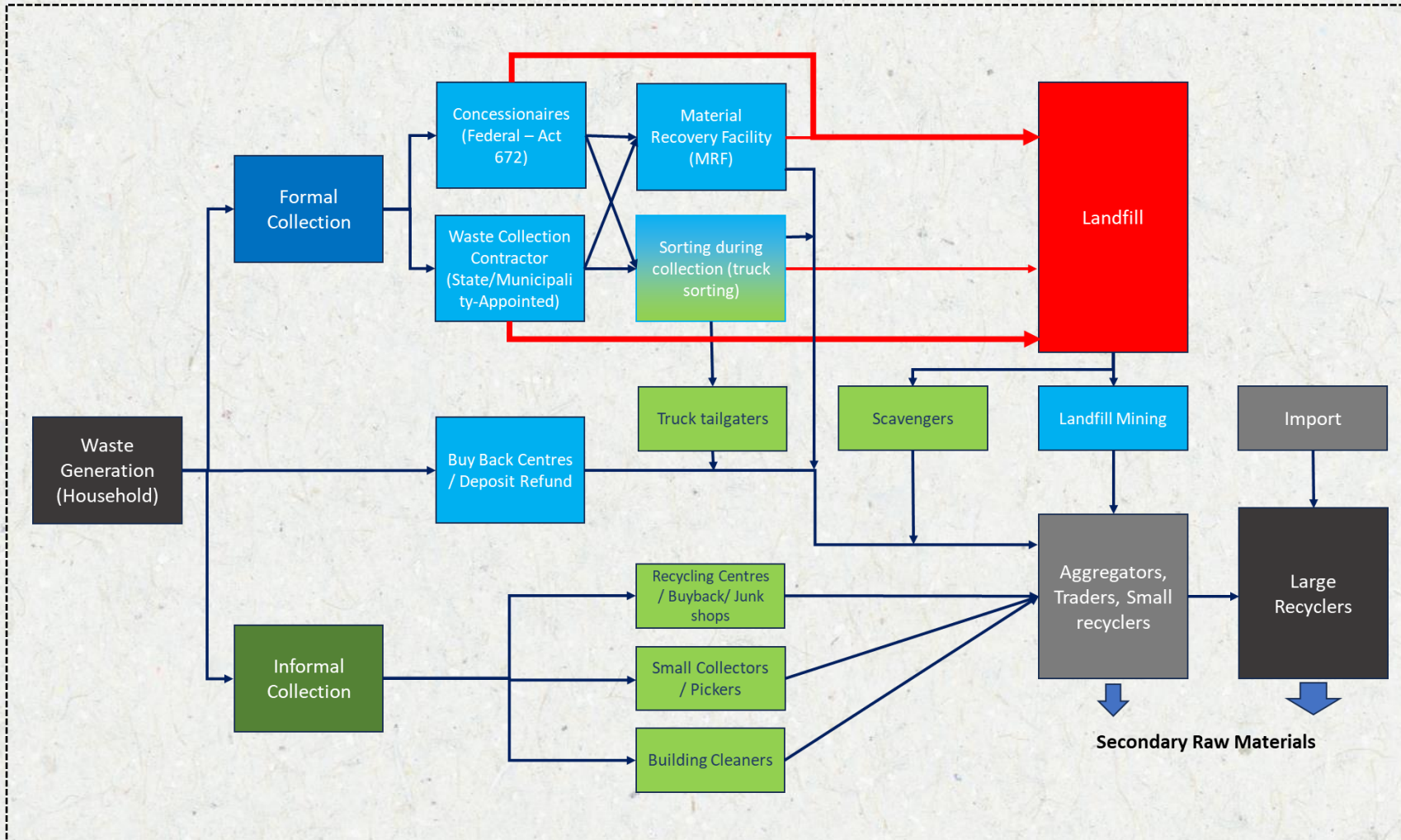


Weaknesses in Formal Systems



90% of plastic collected by informal/ semi-formal actors

Intercepting Recyclables: The Flow of Post-Consumer Materials in Malaysia



KEY INSIGHTS:

The informal sector **is not homogenous**. It includes individuals, organized groups, NGOs and semi-formal businesses.

This diversity means blanket regulation does not work — **segmentation is essential**.

Figure depicting the flow of recyclables in Malaysia.

MAREA's Experience Engaging the Informal Sector

Through our on-the-ground experience contracting recyclers to pilot EPR projects in Malaysia, MAREA has activated the informal sector to recover **high quantities of quality recyclables**.

Channeling materials to recyclers via informal sector actors



MAREA receives
"Put-On-Market" data
from obliged industry



Recyclers receive targets
for collection of priority
materials & specific
volumes



Engagement with
informal/semi-formal
sector for collection



Auditing and verification
of collected materials



Processing into
secondary raw materials
or responsible disposal

The informal sector:

- Operates at the primary collection level, early-stage sorting and initial aggregation levels, making them highly effective in capturing clean, recyclable fractions.
- Is extremely market sensitive, responding to price signals and material value.

As a result, they are the lifeline of the recycling industry, providing high-quality domestic recyclates whilst absorbing collection and sorting costs.

HIGH IMPACT: 75% of plastic waste collected for recycling by informal waste workers globally are converted into new products, compared to just 52% of materials collected by formal systems.

Risks of Designing EPR Without the Informal Sector



If informal actors are ignored:

- **Social wellbeing** and **legitimacy risks** emerge
- Existing **collection flows** may be **disrupted**
- High-quality **recyclables may be lost**
- **Costs shift** upstream to producers



ROLE OF EPR

EPR funding must be utilized to improve the livelihood of reliant communities, reducing costs and increasing efficiency.

Capturing the Strength of Informality via Integration

What Informal Actors Already Provide:



High Capture Rates of Priority Materials



Cost Efficiency, Absorbing Primary Collection Costs



Deep Community-Level Presence, With Strong Local Reach



Price Sensitivity Supporting Continuous Material Flows



Key Insights:

EPR is not only a compliance mechanism – it is a **financing architecture**. Producer fees must be **strategically deployed** to strengthen the early-stage collection ecosystem where informal actors operate, rather than replacing existing systems. **EPR must therefore:**



Make Collection Visible



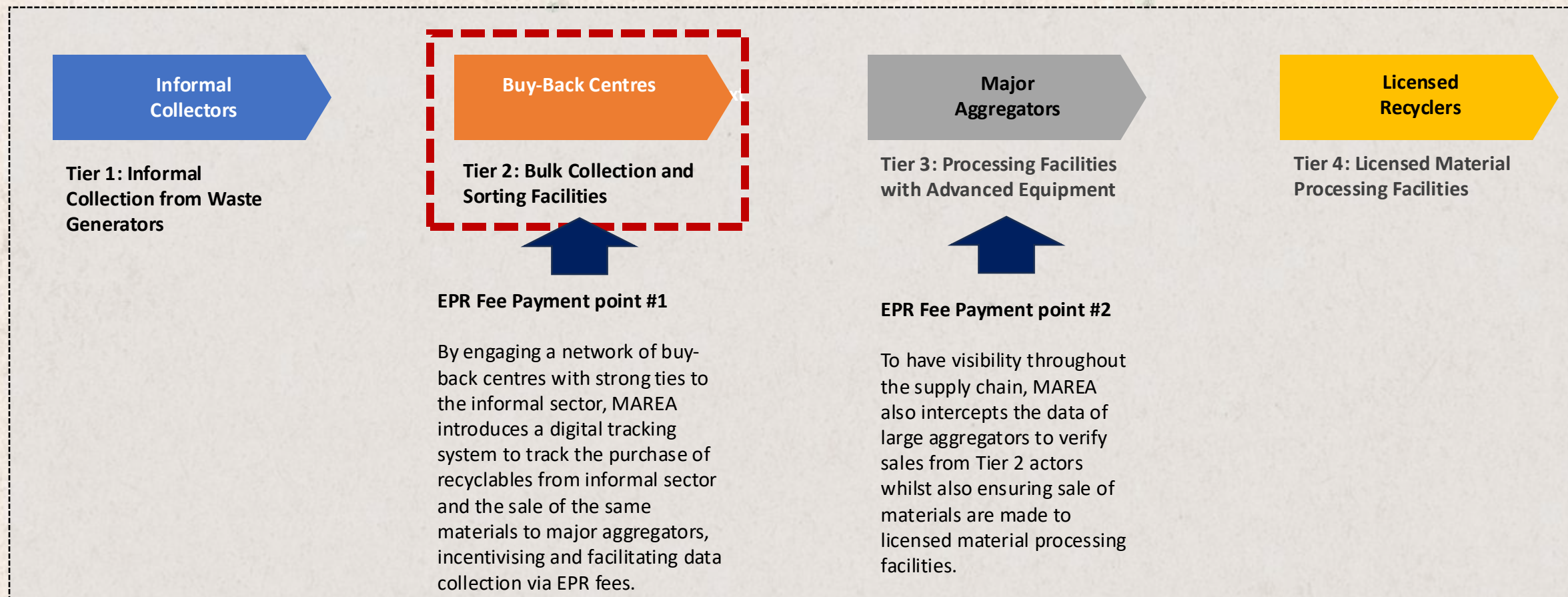
Make Collection Safe



Make Informality Work with Formal Systems



Integration Pathway 1: Making Collection Visible



Key Insights:

Trying to regulate thousands of individual collectors is impractical, particularly when many are wary of registration, reporting and formalization of any sort. However, by targeting **aggregation points – such as buy-back centres**, MAREA is able to access and verify data where material flows converge, allowing for auditing and verification practices.

Integration Pathway 2: Making Collection Safer

The Problem:

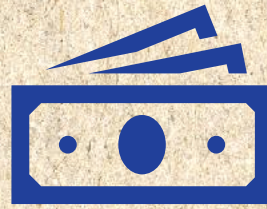


Informal waste collection expose actors to high rates of infection, respiratory illnesses and injury.

Key hazards include cuts from sharp materials (80-90% prevalence), exposure to heavy fumes, infectious materials and extreme weather. ^[1]

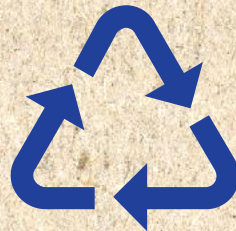
Source:
[1] Occupational Safety and Health Risks of Informal Waste Workers in Nepal: A Mapping Review

MAREA's Care Package



Objective:

To provide preliminary health support (e.g. first aid, medications) to informal collectors who contribute to the MAREA collection numbers, demonstrating reliance on and ostensibly risk due to informal sector work.



Details:

As a result of attending to a key risk of the informal sector in conducting their operations, there is heightened trust, resulting in higher collection and opening future pathways for further intervention.



Potential for Expansion :

Empowering informal workers by providing resources, training and connections to enhance livelihoods and achieve social and economic stability



Integration Pathway 3: **Compatibility and Integration with Formal Collection Systems**

Critical challenges for the informal sector that remains even with Integration Pathway 1 & 2:



1) Potential risks of conflict with formally appointed waste management actors over valuable recyclables.



2) Vulnerability to cost fluctuations and volatility.

KEY INSIGHTS:

With increased activity from the informal sector, there persists risks that the informal sector may compete with formally appointed waste management actors. Additionally, cost fluctuations and global price volatility results in inconsistent incomes.

Solution:

Integration via concessionaire-appointed buy-back model, allowing for indirect price control

EPR-Formal-Informal Integration

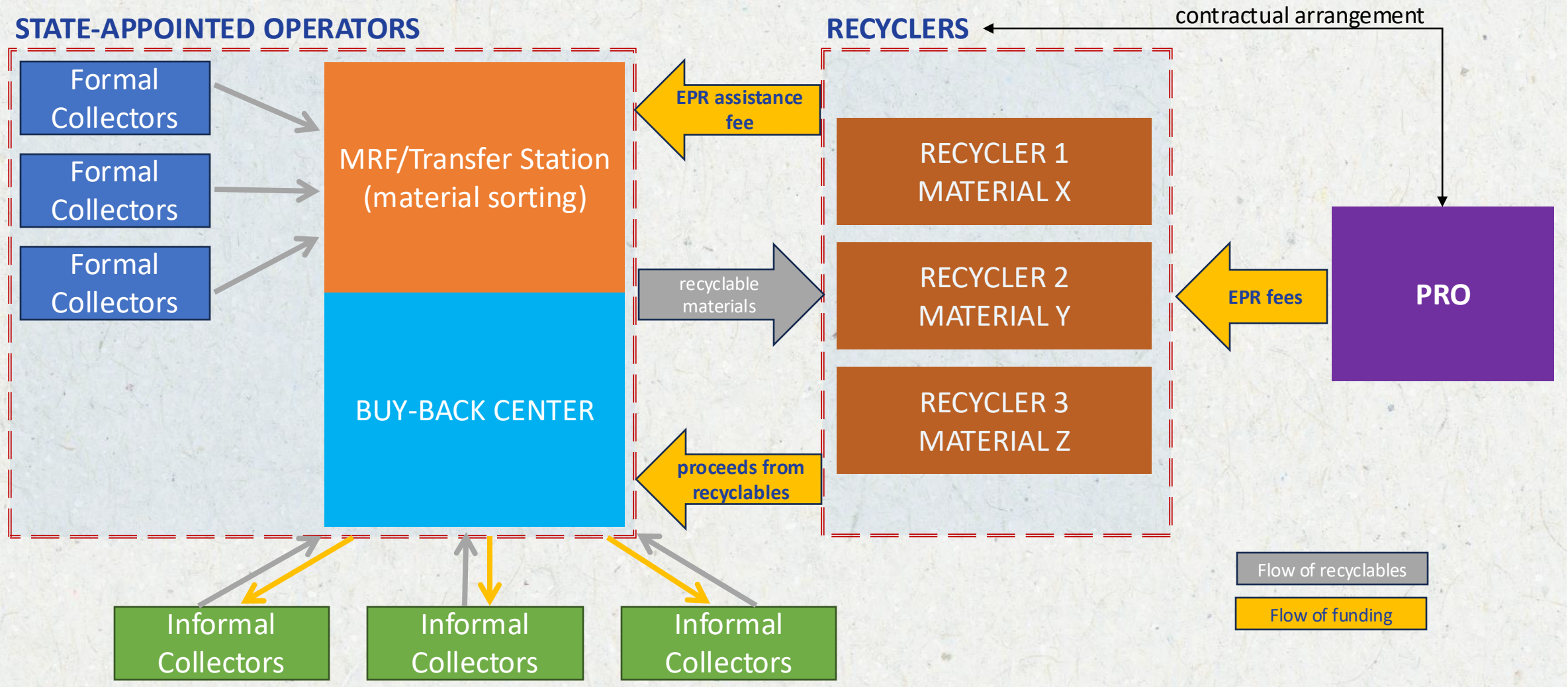


Figure depicting integration of Producer Responsibility Organizations (PROs), formal collectors and informal actors.

Extended Producer Responsibility: A Platform, Not a Reset

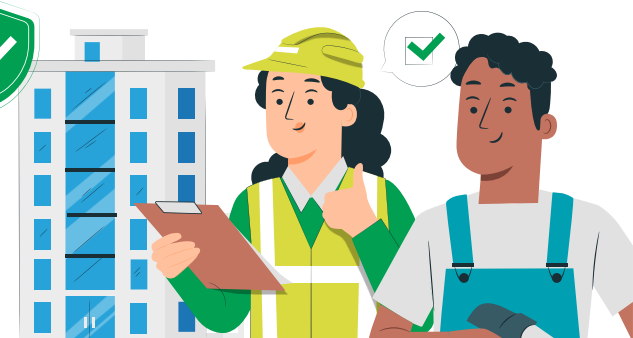


EPR should:

- Build on existing systems
- Improve coordination
- Incentivise better outcomes
- Enable gradual professionalisation

EPR should be seen as a coordination platform, not a system reset.

Malaysia already has a recycling backbone. The task is to strengthen it – not to bypass it.



Key Insights:

Countries must **devise a just transition** to ensure the informal sector can be **incorporated into the formal economy** without discrimination, irrespective of worker or entrepreneur status (WIEGO 2022).

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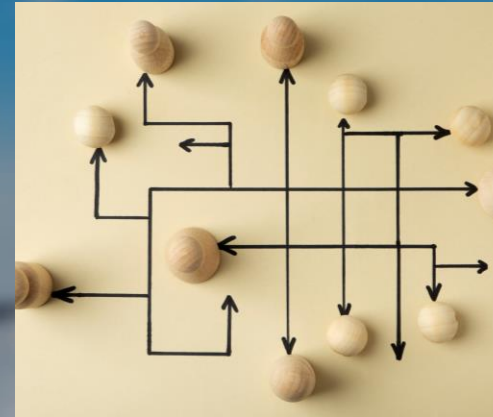
Call to Action



The informal sector **exists as a reality** in Malaysia and as a response to the gaps in formal collection of recyclables



EPR should be used to **enhance** the existing skills, livelihood and rights of the informal sector



Informal actors are not interested in formalization; therefore, the **focus should be on integration**



Policy should create alignment with formal systems where possible, whilst ensuring minimum standards **facilitating social & economic mobility**



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