



Capacity Building Programme for Employment Promotion

COMPLETION REPORT

PILOTING THE INTEGRATION OF INFORMAL WASTE PICKERS AND WASTE PICKER COOPERATIVES IN THE WASTE VALUE CHAIN WITHIN THE CITY OF TSHWANE

Project details

Reference Number:	Activity No. 29/DT Global IDev Europe /CBPEP/EUD
Title:	Piloting the Integration of Informal Waste Pickers and Waste Picker Cooperatives in the Waste Value Chain Within the City of Tshwane.
Activity Type:	Short Term Experts
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Consultant:	Mr Kobus Otto
Max No of Days:	25
Month(s) Work:	5
Researcher:	Senior Expert (NKE 1)
Consultant:	Ms Lise Steyn
Max No of Days:	10
Month(s) Work:	5
Materials developer:	Senior Expert (NKE 1)
Consultant:	Ms Esther le Roux
Max No of Days:	10
Month(s) Work:	5
Project administrator:	Junior Expert (NKE 2)
Consultant:	Ms Carla Constantinescu
Max No of Days:	5
Month(s) Work:	5

1. Completion report objective

The objective of this completion report is to:

- Report on objective, scope, and deliverables of the project;
- Report findings and observations; and
- Sign off on deliverables.

2. Project objective

The objective of this assignment is to achieve the following:

- Undertake a study and report on a situational analysis pertaining to the integration of informal waste pickers and waste picker cooperatives within the waste management value chain in the City of Tshwane.
- Develop an integration strategy and business model(s) for waste picker integration in specific localities.
- Compile a case study and develop good practice guidelines to inform waste picker integration in other municipalities.

3. Scope of work

The main tasks to be completed are:

a) Assessment of Waste Picker Integration across the Waste Management Value Chain by:

- Assessing the regulatory environment pertaining to the integration of informal waste-pickers and waste picker cooperatives in the City of Tshwane.
- Undertaking a stakeholder analysis and develop a stakeholder matrix.
- Conducting a high-level situational analysis of issues pertaining to waste-picker integration across the City.
- Conducting an in-depth analysis of issues pertaining to waste-picker integration in selected site(s).
- Reviewing social protection instruments and strategies to be considered for the integration of waste pickers in the City.
- Assessing risks and opportunities pertaining to the integration of informal waste pickers and waste picker cooperatives within the waste management value chain for the City of Tshwane, including the interface with commercial waste management operators and potential climate change linkages in the green economy.
- Highlight relevant issues within the waste management system and process which are beyond the scope of this particular project, but which warrant further attention and follow-up action by the City of Tshwane, including for example:
 - Integration of the recycled material offtakes market.
 - Integration of chain stores as actors in the recyclable offtake market.

b) Developing an intervention Strategy for the Integration of Waster Pickers and Waste Cooperatives into the Waste Management Value Chain, by:

- Developing an intervention strategy including a proposed business model(s) for the integration of informal waste pickers and waste picker cooperatives within the City of Tshwane waste management value chain, addressing *inter alia* the interface with commercial waste management operators and potential climate change linkages in the green economy.
- Outlining a capacity building and knowledge management strategy to support the implementation of the proposed model(s) in the City of Tshwane, and to promote wider learning within the local government environment.

4. Project deliverables

The key project outcomes and deliverables are as follows:

- An Inception Report, outlining the project team's analysis of the terms of reference, together with a proposed approach and work plan for undertaking the project.
- A Project Report, covering the issues outlined above, including a summary of key findings and recommendations and a proposed model or approach for the integration of informal waste pickers and waste picker cooperatives within the City's waste management value chain.
- A systematic process of stakeholder consultation and dialogue to 'ground-truth' the project findings and recommendations including the proposed model for waste picker integration.
- A design workshop with City of Tshwane officials and project partners to review the proposed integration strategy and advise the City on how waste picker integration could be taken forward.
- Case study and good practice materials, to inform the development of waste picker integration strategies in other localities.
- A Project Close-Out Report.

5. Findings and observations

The project team recognised at an early stage that waste picker integration could not be considered in isolation. For the integration models to be sustainable, it was to form part of the integrated waste value chain. Parties consulted, and to which site visits were undertaken, therefore *inter alia* included national, provincial, and local government, waste management service providers, as well as stakeholders at various levels within the packaging and recycling industries. The most important stakeholders consulted were, however, several individual waste pickers as well as representatives from various waste picker organisations.

A wide range of findings, as presented in this report, were made during the investigations.

5.1 The Waste Value Chain

By evaluating the current waste value chain, the consultant team identified four primary sources of recyclable materials that showed potential for intervention.

The objective was to address the key principles underpinning waste picker integration, aimed at capturing as much recyclable material as possible in a safe, healthy, cost-effective, and environmentally sound manner – forming part of an integrated recycling¹ system.

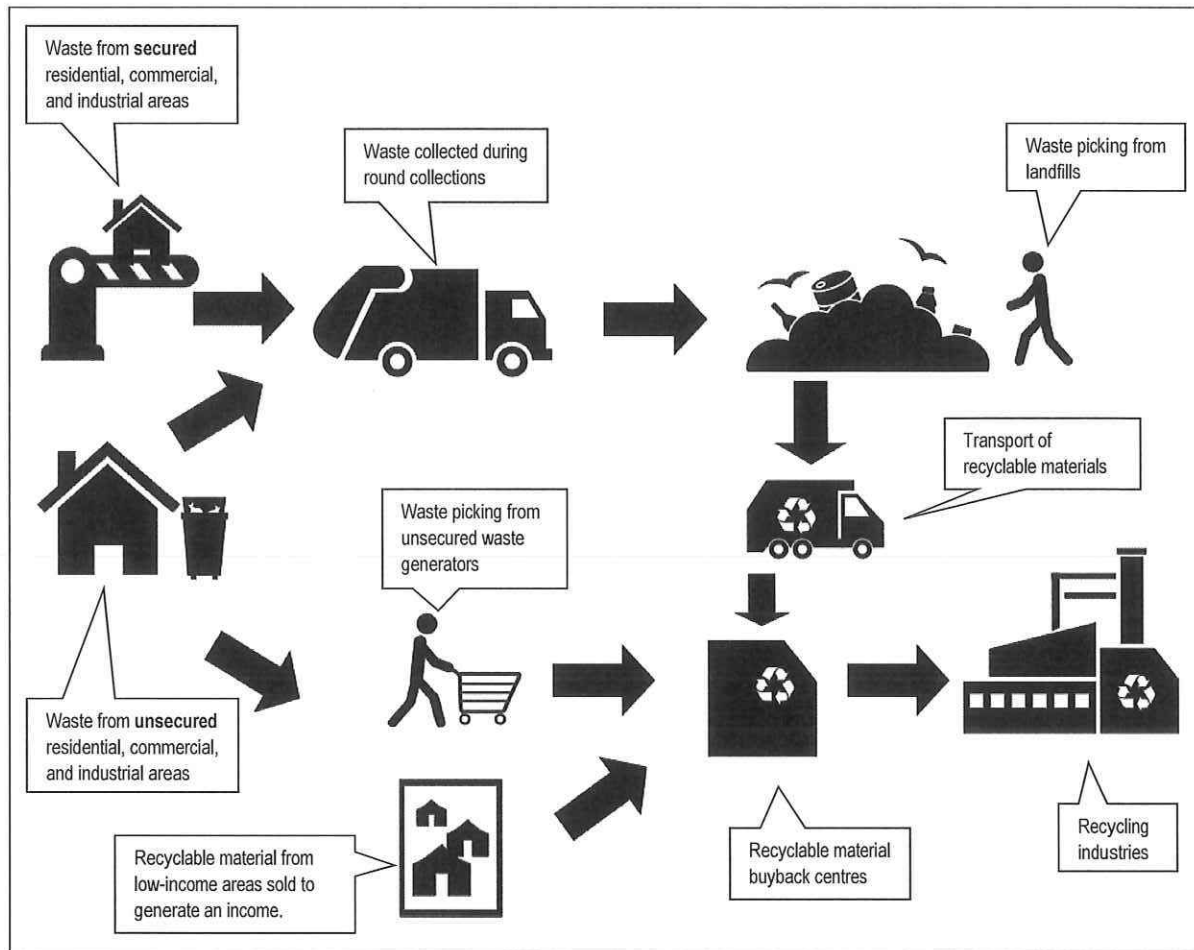


Figure 1: The waste value chain in the City of Tshwane

(Source: The initial diagram obtained from the 'Waste Picker Integration Guideline for South Africa' was revised based on findings from the business model study.)

The four main sources of recyclable material identified were:

- **Recyclable materials collected from landfills.**

Although it is most desirable for recyclable material to be extracted from the waste stream before being disposed of on landfills, it is unavoidable that some recyclable material will still end up on landfills. Such material is to be recovered in a safe, healthy, cost effective and environmentally sound manner.

¹ Although it is recognised that 'recycling' is by definition only the process of converting waste materials into new materials and objects, the term will for this study, and in line with terminology most used by the general public, include all activities related to an integrated recycling process – starting with waste separation at source and ending with material processing by specialised industries.

- **Recyclable materials from *unsecured* residential, commercial, and industrial areas.**

Although some recyclable material is already recovered from unsecured residential, commercial, and industrial areas, several shortcomings were identified in the systems currently used. Problems identified, *inter alia*, included low production rates by waste pickers due to long travelling distances, poor working conditions, negative impacts on the environment as well as friction between waste pickers and members of the communities from which recyclable materials are collected. The need was therefore identified for such systems to be improved.

- **Recyclable materials from *secured* residential, commercial, and industrial areas.**

With waste pickers not having access to secured residential, commercial and industrial areas, and with limited recyclable material drop-off facilities available to the public, it can be expected that a significant volume of high-quality recyclable material is collected as part of the disposable waste stream before being transported to landfills. Although it will then become accessible to waste pickers, the quality of the material would have been significantly reduced as it would have been contaminated. Separating recyclable material at source will therefore not only increase the volume of material recovered, but it will also increase the quality of the material significantly.

- **Recyclable materials sold to generate an income.**

Where sufficient recyclable materials are generated in the commercial and industrial sectors to justify the sale thereof, or where such materials are separated at source in mostly low-income residential areas as a means of generating an income, such materials may be sold to buyback centres. Since buyback centres mostly insist that recyclable materials are to be sorted into the various categories for it to be purchased, several problems were identified not only in terms of the sorting processes undertaken, but also in terms of the locality of some of the buyback centres. Determining how buyback centres can be integrated into the larger model was therefore of utmost importance.

Throughout the project, it was clearly understood that *integration is about integrating systems as well as people*.

From the investigations undertaken, the waste recycling matrix for South Africa can be illustrated as indicated in Figure 2 below.

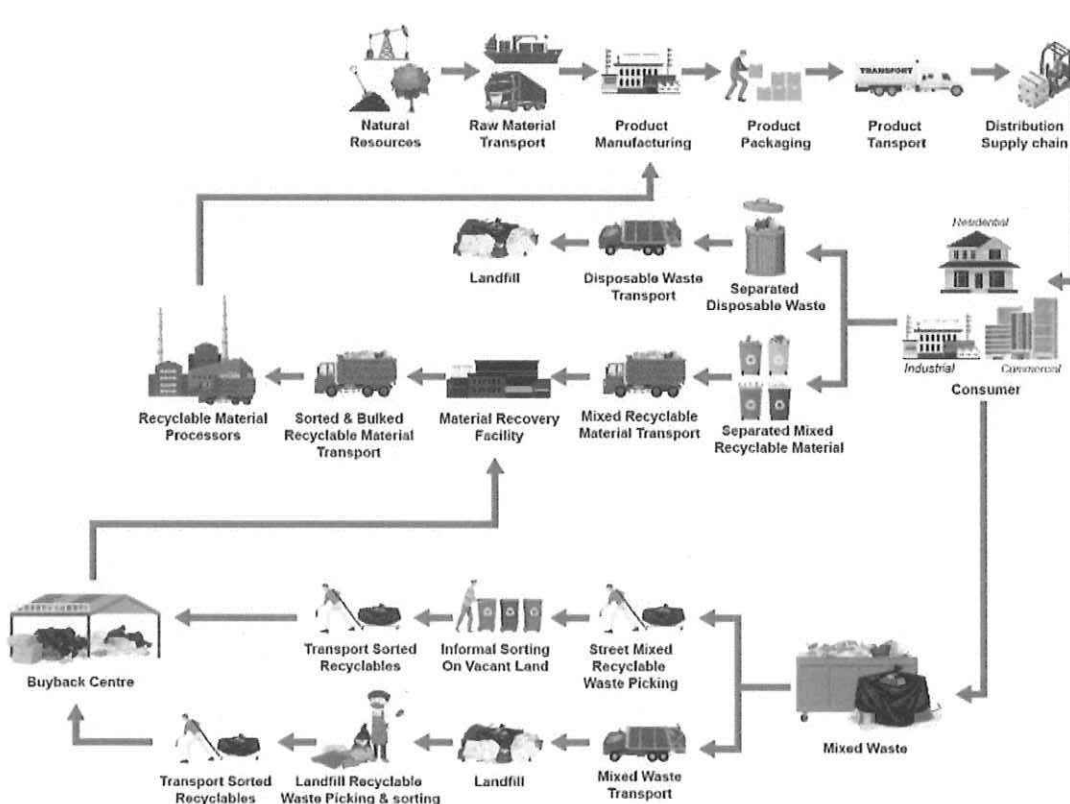


Figure 2: Post-consumer Waste Recycling Matrix for South Africa.

5.2 Drivers for Recycling

It is recognised that the drivers for different members of society to participate in recycling programmes will be different. It is therefore first and foremost important that the drivers for recycling be identified. Although it is generally accepted that higher income communities will generate more recyclable material *per capita* than lower income communities, it is *not* always recognised that the drivers for recycling will be different for different parts of society.

Maslow's hierarchy provides valuable insight into the needs that are to be fulfilled in different parts of society – starting with the most basic needs that are to be fulfilled at low-income levels. With large numbers of South Africans being unemployed, and poverty being at the order of the day, the priority for people in the lower parts of Maslow's hierarchy will be focussed on survival – with needs mostly being focussed on the short term. As people move up Maslow's hierarchy, their needs will change accordingly, and people will be more inclined towards meeting long-term objectives, like protecting the environment and conserving natural resources for future generations.

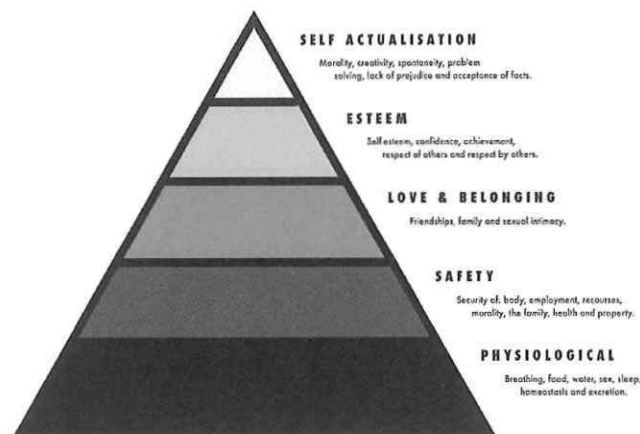


Figure 3: Maslow's hierarchy

The drivers of recycling in the lower section of Maslow's hierarchy will include waste picking by the unemployed as a means of generating an income, whereas drivers for recycling in the upper section of the hierarchy may be social pressure and environmental concerns for environmentally conscious individuals, businesses and industries.

5.3 Addressing the Ten Principles that Underpin Waste Picker Integration

The strategy was implemented to underpin waste picker integration as established in the *Waste Picker Integration Guideline for South Africa*:

Principle 1: Recognition, respect, and redress

- Waste pickers are the centre of the model by being recognised and considered at every step of the process.
- Addressing gender inequality by formalising landfill processes and ensuring equal opportunities for women (and the elderly).
- Education campaigns through separation at source and secured drop-off facilities to sensitise people to the role played by waste pickers in the waste management value chain.

Principle 2: Value waste pickers' expertise

- Consulting and tapping into knowledge and expertise of individual waste pickers and waste picker associations.
- Including waste pickers and waste picker representatives in consultation workshops.
- Placing high regard on the Waste Picker Integration Guidelines.

Principle 3: Meaningful engagement

- Consulting with individual waste pickers as well as waste picker representatives.

- Visit and interact with waste pickers in their areas of work as a means of identifying potential strengths, weaknesses, opportunities, and threats (SWOT).
- Incorporate the information generated during the engagement process in the design and development of the business model(s).

Principle 4: Build on what exists

- Model(s) built on improvements of current day-to-day activities of the waste pickers.
- Improving current conditions and viability of activities through introduction of new processes.

Principle 5: Increased diversion and cost-effectiveness

- Model targets self-sustainability with minimal external funding to protect the environment and preserve natural resources, whilst at the same time improving the work- and living conditions of waste pickers.

Principle 6: Evidence-based

- As seen in the case study for the Blue Gill eco-estate, certain aspects of the model have been proven to be successful and sustainable.
- A feasibility study to determine the cost implications, as well as a pilot study to fully test further aspects of the model, will be required.

Principle 7: Enabling environment

- Assistance from municipalities will be crucial, including financial contributions for avoided waste disposal costs.
- Integration of the model into the extended producer responsibility programme will ensure optimum utilisation of resources, whilst avoiding fruitless expenditure through duplication of activities.

Principle 8: Improved conditions and income

- The model aims to improve the health, safety and working conditions for both landfill waste pickers and street waste pickers.
- The model intends to make optimum use of the work done by waste pickers, and by avoiding unnecessary/unproductive activities.
- Through economies of scale, waste picker cooperatives will have direct access to recycling industries.

Principle 9: Compensation for services and savings

- The entire value chain needs to be assessed to ensure optimum supply and demand.
- A feasibility study is required to determine a fair spread of income to all parties involved in the value chain.

Principle 10: Holistic integration

- Incorporate all recyclable material sources, including those previously not accessible to waste pickers.
- Consider the overall waste value chain to ensure that the system is optimised to generate increased income for individual participants.

6. Further Studies Suggested

- Identify and detail Model options for different situations.
- Undertake feasibility study on model options.
- Develop evaluation criteria.
- Compile ranking matrix based on evaluation criteria.
- Selection of most viable model options for different scenarios.
- Design pilot study models.
- Implement, monitor, evaluate and adjust pilot study models.
- Develop phased implementation model for the CoT for different situations.

Compiled by:

Short term expert: Team leader - Kobus Otto
Date: 6 July 2021

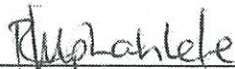


Report Quality Assurance Review Completed by:

CBPEP DT GLOBAL: Glen Fisher

Date: 20 July 2021

Recommended



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Date: 06/08/21

Approved/Not approved

Comments



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Date: 11 August 2021

Approved/Not approved

Comments

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Date:

Approved/Not approved

Comments
