



International Legally Binding
Instrument on Plastic Pollution

Meeting environmental and social goals whilst ensuring a just transition

Important questions when considering situations
with lower scale waste management systems.

1.0 Introduction

The United Nations Environment Programme (UNEP) has proposed in the [“Zero draft text of the international legally binding instrument on plastic pollution, including in the marine environment”](#) a number of draft provisions for “Waste Management” (section 9 of the zero draft). It also sets out requirements for a “Just Transition” (section 12 of the zero draft).

This paper starts from a hypothesis that effective circular economy systems for plastics can be developed, funded and implemented within the next 10 years, whilst also ensuring a socially just transition.

We propose what the key features of these systems should be and raise important questions that need to be addressed. Answering these questions requires further work.

As part of this process, Reloop welcomes engagement with all relevant actors, including NGOs, waste pickers, municipalities, national governments, brand owners and other impacted stakeholders.

This paper considers several complex issues that are highly nuanced and, in some cases, lack broad consensus. To set out the issues at a high level, a global perspective is taken, requiring simplification and generalisation that by definition misses important regional and local variation. However, our intention is to positively contribute to an important debate at a strategic level.

1.1 Goals for the Instrument

The Intergovernmental Negotiating Committee (INC) aims to bring countries together to develop and agree an international legally binding instrument on plastic pollution (“the instrument”).

Reloop’s view of a reasonable goal for the instrument is that, **to manage the wider environmental impacts of plastic consumption and waste**, all countries must adopt policies and methods which:

- reduce overall plastic consumption;
- lead to a significant switch from single-use to reusable packaging systems; and
- achieve high levels of circularity of the plastics consumed, which requires a significant increase in levels of high-quality recycling and recycled content.

And, as a minimum level of management:

95% of the population of all countries, as an absolute minimum, must have access to refuse collection in order to **minimise plastic leakage to the environment**.

As refuse can contain plastic wastes that are not separately collected, the unrecycled components of the collected refuse should be treated in well-managed landfills.

Reducing the impact of plastic production on the environment through reduction in consumption and increased circularity is vital, but prevention of leakage into the open environment can only be achieved through the combination of collection of all plastic waste, whether it has an economic value or not, and ensuring its well-controlled reuse, recycling or disposal.

These goals should be achieved through the concepts of Option 1 in the Zero Draft, i.e., “meet the requirements” agreed in the instrument. We believe that together these concepts describe a reasonable goal for the instrument. Hereafter, this is referred to as “the Goal”.

In meeting this environmental goal, the instrument should also be based on those workers in the supply chain having access to a living wage, and reasonable working conditions that safeguard health and safety, and dignity.

1.2 Key Terminology

Terminology around plastic pollution, scale of waste management, and just transitions are not universally recognised or agreed. Here, accepting the simplified nature of this paper, we use the terms:

- **“Just transition”**, as per the Zero Draft, to promote and facilitate a fair, equitable and inclusive transition for affected populations, with special consideration for women and vulnerable groups, including children and youth, in the implementation of the instrument, and our Goal.
- **“Refuse”** to describe waste comprised of mixed materials, generally including plastic, generated by households, businesses and public sector institutions.
- **“Lower scale waste management systems”** to describe areas that do not have universal collection (>95% coverage), and where less than 95% of refuse is destined for recycling or ‘well managed disposal’, and the majority of recycling activity is in the informal economy.
- **“Informal economy”** to describe economic activities, enterprises, jobs, and workers that are not regulated or protected by a state. Formal economy describes the opposite situation, but it should be acknowledged that there are many examples of ‘partially informal’ economic activity.
- **“Waste pickers”** to describe workers (and their representative organisations) who collect, sort, aggregate, and move plastic scrap and other waste materials. Waste pickers can be part of the formal and/or informal economy, often depending on whether they are formally contracted to work.

Waste pickers deliver valuable work for the global environment. However, the problem of plastic waste leakage into the environment is far from solved. Understanding the system is key to understanding how to improve it.

1.3 System Features to Meet the Goal

There are key system features – for plastics and more widely – that will be necessary to meet the Goal.

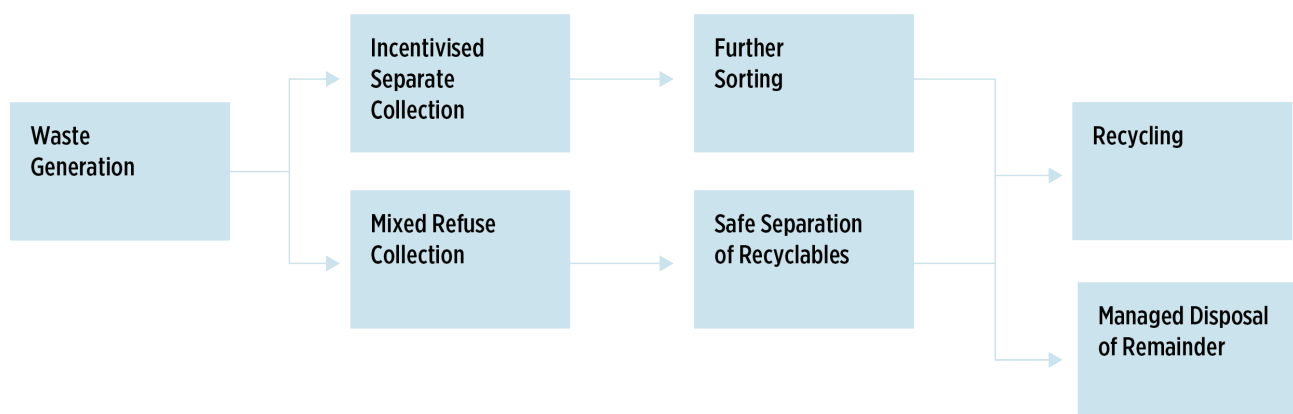
Reuse Systems

To reduce plastics consumption further, developments will need to safeguard existing reuse systems and further develop reuse systems. To ensure high return rates, these systems will need to incorporate a strong return incentive, such as a suitable Deposit Return System (DRS) and efficient supply chains to recondition packaging for further use.

Waste Management Systems

Ideally, the wider waste management system will be considered in a holistic sense, rather than solely focusing on plastics. High coverage of refuse collections will be essential, but ultimately the effective separate collection of biowastes will also be an important feature. This will reduce greenhouse gas emissions from decomposing waste, return valuable nutrients to the soil and facilitate effective sorting of ‘dry’ materials.

Figure 1: Plastic Flows



The **Key System Features** for meeting the Goal:

1. **Incentivised separate collection** services that are convenient for waste producers and provide suitable incentives that lead to high capture rates and, importantly, reduce littering of plastic items.
 - Further sorting will then be needed for high quality recycling outcomes.
 - Appropriately designed DRS will be an important feature of incentivised separate collection.
2. **Refuse collection for all** is ultimately the only means of fully preventing the leakage of plastics.
 - Collection and well-managed disposal of refuse also reduces greenhouse gas emissions, local air quality emissions and other pollution associated with open dumping and burning of plastic and other waste, which collectively are a significant contributor to global greenhouse gas emissions.

- Further removal of high carbon materials by providing safe sorting processes will be important to increase circular use of plastics and minimise the greenhouse gas emissions of plastic consumption.

3. **High-quality plastic recycling plants** need to be in place to return plastics to the circular economy.
4. **Well-managed landfills** should be used for the refuse remaining after separation processes which still have quantities of plastic remaining, to prevent leakage to the environment.

Transitioning to these system features from lower scale waste management systems may be relatively simple, creating clean green jobs that are fair and equitable within a system that is affordable for those funding it. But there are some key questions that need to be resolved in order to establish whether this is indeed the case:

Can these systems be developed so that they are adaptable to the social and environmental needs of local economies and, at the same time, are supporting a just transition to a circular economy within communities? Given that these systems are likely to emphasise job creation over technology, where is technology absolutely needed?

Can these systems be implemented quickly, or will they take decades to put into place?

In what ways might the creation of the systems provide opportunities to waste pickers or represent a threat to their livelihoods?

How is progress measured? What are the most appropriate key performance indicators (KPIs)?

Further work is needed to determine the answers to these questions and more clearly define the nature of these systems and what the location-specific differences and similarities between them might be. Crucially, this further work would need to actively include waste pickers. Despite current uncertainty, it does seem from successes that have been documented around the world that systems can be designed to:

- achieve the Goal set out in this paper;
- provide fair and equitable employment;
- not undermine existing waste pickers' livelihoods;
- be economically efficient and affordable; and
- be delivered at scale in any country in years, not decades.

2.0 Funding the Goal

These proposed systems – whilst potentially economically efficient – will still require significant investment to ensure all plastics are no longer mismanaged and wider environmental goals are achieved. There needs to be a clear understanding of the features of existing systems that work well and those that need to be improved. The effectiveness of current and future features will likely vary by place – different geographies, cultures, administrations and economic situations will all impact the system. As investment requires understanding and predictability of the market, realising the impacts of these factors is important.

What is the minimum investment needed to reach the Goal?

Where – geographically and within the value chain – is investment needed first?

The system features, the scale investment needs, and the magnitude of impacting factors are not well understood at this point. So, more work is needed to understand the scope and scale of all these elements.

It seems likely that the vast majority of waste pickers are at the lower end of their national income scales. A key part of the Goal is to elevate the income and working conditions of waste pickers, not least in recognition of the vital contribution that they make, but which in many cases would entail a very substantial increase in the financial cost of the system.

How can a living wage be received by all, without breaking the system?

How can money be distributed fairly, protecting those most vulnerable?

One potential source of funding is through Extended Producer Responsibility (EPR). Other sources of funding may also contribute, such as revenues from a global plastic pollution fee. There may be a case for a more global perspective on plastic production, where a portion of profits from some markets are used to fund the Goal in markets where investment demands are more significant and there are other potential financial barriers.

What are the effective forms of EPR for different circumstances?

How can EPR for plastics be used to facilitate the other necessary system components, such as sorting of materials from refuse, and the provision of well-managed landfills?

3.0 Waste Pickers and The Informal Economy – Current Arrangements

To understand how the future might look it is important to understand the current situation. The following sections explore methods, supply chains and organisational structures utilised by waste pickers to shed light on this vital component of lower scale waste management systems.

A fundamentally important point is that there is wide variation in how waste pickers are organised in different geographies, and the types and effectiveness of methods in use.

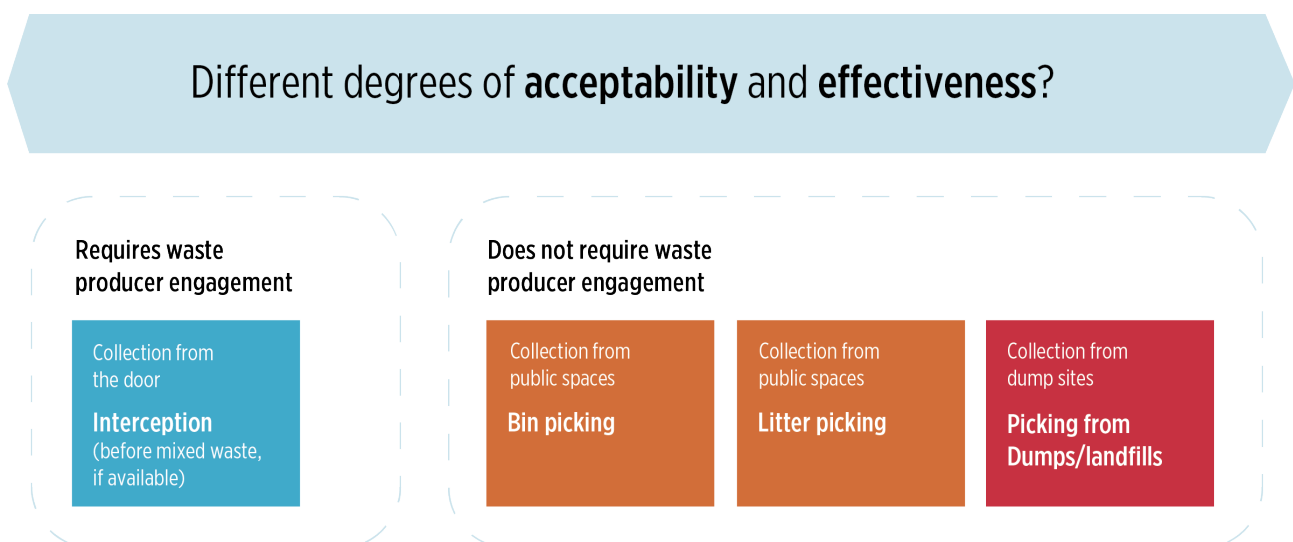
3.1.1 Waste Pickers – Plastic Separation Methods

Methods can include:

- **interception** of waste – the waste producer (e.g. householder or business) keeps recyclables separate from other wastes;
- **Picking from bins** on the street – pickers extract recyclables from contained waste;
- Picking recyclables that have been **littered**; and
- Picking recyclables from **dump sites**.

Multiple methods may exist in one country, or within one region. Even along the same street, litter picking can occur alongside bin picking. However, different methods may have a greater role in the system in different places.

Figure 2: Picking Methods for Plastic Separation



The variation in effectiveness of these different methods is not well understood, but it seems highly likely that, for higher capture rates, “interception” alongside other forms of picking activity will be necessary for removing significant proportions of plastics from refuse. However, depending on effectiveness, a large step change in methods may also be necessary in some areas.

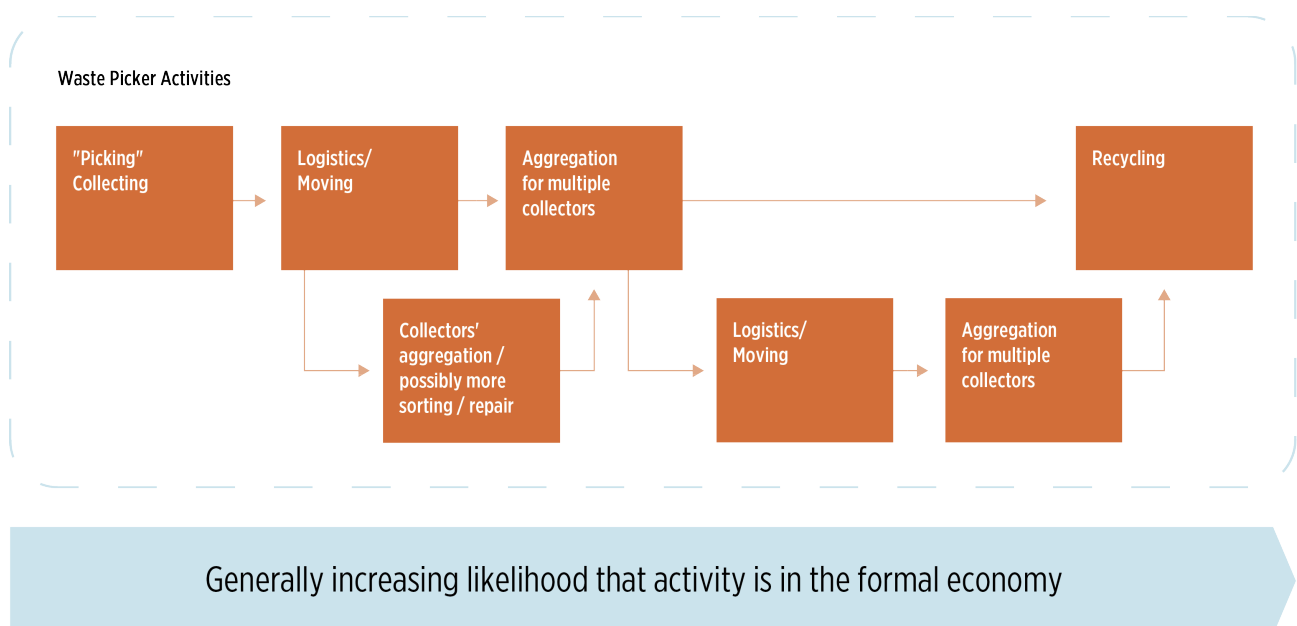
Of these methods, picking from dumps is not a reasonable method of work for safeguarding the health and safety of waste pickers. The instrument should be designed to move away from this as a method, encouraging alternative methods without risking the livelihoods of local communities.

3.1.2 Waste Pickers – Wider Recycling Supply Chain

The term “waste pickers” encompasses a wide set of activities. The activities within a waste picker supply chain have a high degree of variability between countries, and often within a country. The stage at which these activities switch between the informal economy and formal economy is also highly variable.

The diagram illustrates a simplified example of a supply chain, incorporating a number of likely activities. It aims to demonstrate that the switch between the informal and formal economies can occur at any stage – from just after picking, right up to the point of recycling. Where recycling and the aggregation that happens immediately before recycling sits within the informal economy, there may be a significant barrier to the formal sector investing in recycling plants of sufficient scale and quality to deliver the circularity ambitions of the Goal.

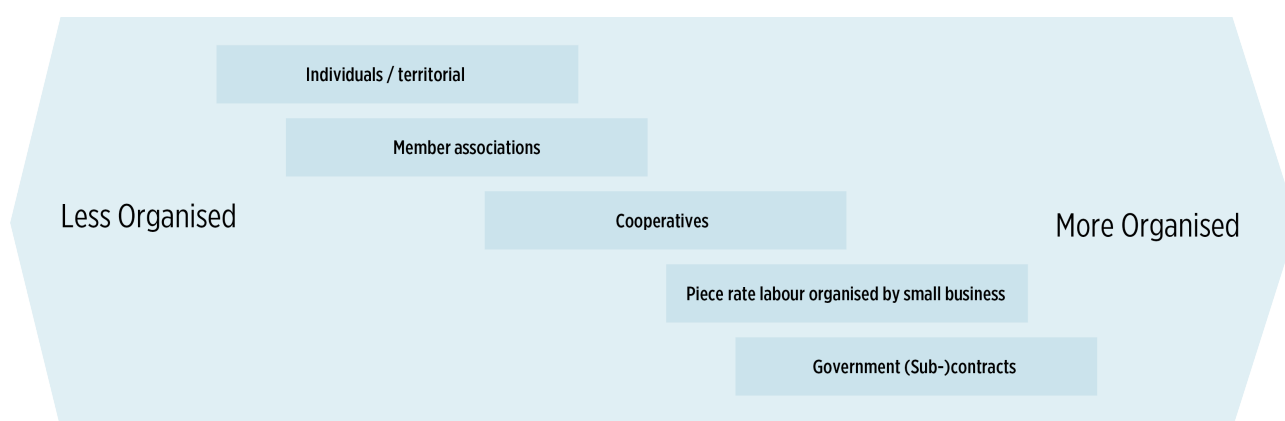
Figure 3: Overarching Supply Chain of Potential Waste Picker Activities



3.1.2 Waste Pickers – Wider Recycling Supply Chain

The way in which waste pickers are organised within lower scale waste management systems and how this varies around the world has not been comprehensively described, to our knowledge. However, it is known there is high variation in the level of organisation that exists globally. Again, there is likely to be significant variation between countries and within a country. The level and variability of organisation is likely to have significant ramifications in moving to systems that attain the Goal.

Figure 4: Breadth and Level of Organisation of Waste Pickers



Waste pickers associated with “picking” plastics scrap will nearly always be effectively working for themselves in the informal economy. There are variations in how much agency the individuals have over working hours and choices over where to sell materials. In many parts of the world, individual pickers may be essentially self-determining over their work and may come together in small informal groupings, which can help to protect their working territories.

In other parts of the world and maybe more typically on dumps and landfills, small and often informal or semi-formal businesses may arrange the work of the pickers and may pay the workers on a “per kilo” basis.

However, in all of these elements there is considerable geographic variation. There are some examples where waste pickers are very much in the formal economy and some cases where public administrations have created hybrid semi-formal arrangements specifically for waste pickers.

There is further variation in the existing organisations that may interface with the workers picking plastics:

- **Member associations** are relatively prevalent and, at present, are primarily a form of worker representation. There are also cases where associations have begun making commercial arrangements with formal economy entities, such as EPR schemes.

- **Cooperatives** are typically formed around the processes of aggregating and selling materials, allowing members to benefit by aggregating their market power and sharing an increased income. Not all cooperatives 'direct' the work of those picking plastics. There are examples where municipalities contract cooperatives for services and the cooperatives distribute the income gained. However, it is unclear to what extent there is a consistent direction of work.

Not all methods of organisation are benign. There are many well-documented examples of where predominately male groups come together in gangland-type groups to protect territory for picking activity, often with the threat of violence for those that might seek to pick materials in those areas. These gangland-style arrangements are often discriminatory and further marginalise already marginalised groups within the waste picker community.

Whilst the variety of arrangements has not been catalogued, it is clearly of interest in considering how the roles of waste pickers can be modified, increased, and transitioned to assist in the overall Goal of the instrument.

The extent to which those workers in the informal economy want to become part of the formal economy and the extent to which they would want to transition from self-employed to employed remains unclear.

Furthermore, it would seem apparent that for the Goal to be met, more money will need to flow from formal sector entities, such as the producers of plastics and plastic products, and from different categories of state actor, such as the intergovernmental to the local/municipal.

What is important to consider to ensure safety and job security of workers in different local situations, and different groups within the same local situation?

What might women waste pickers need that men might not – and vice versa?

4.0 Significant Questions for Goal Achievement

4.1 Achieving High Collection and Recycling Performance

In virtually all cases, waste pickers are collecting materials with sufficient scrap value by weight to make this activity worth undertaking. The exact materials will vary depending on circumstances but in respect of plastics will typically include PET bottles and maybe some rigid polyolefins.

Other formats, including the vast majority of flexible single use plastic formats, have insufficient values to be picked.

Therefore, PET bottles may well be considered a reasonable indication of the current recycling performance of lower scale waste management systems with mostly waste picker activity.

The PET bottle recycling rates across regions of lower scale waste management systems vary considerably, but in many cases remain below 50% and sometimes quite a bit lower.

Why there isn't better performance is an important question that needs to be answered and is relevant to meeting the future Goal. The explanation of this frequent low performance is likely to be a combination of factors.

In some regions, there is no local infrastructure to encourage increased collection, and in others recycling capacity is not fully utilised. We have mentioned methods of picking previously, but another important factor might be the geographic coverage of the activity. As areas become more geographically remote from buyers of aggregated plastic scrap, and population and waste generation more sparse, it's likely that picking activity no longer makes sense solely on the sales value of plastic.

High quality recycling plants are needed to achieve circularity and getting investment into these plants requires a good degree of certainty on feedstock tonnages.

How can future arrangements be organised to ensure effective methods of materials capture and high levels of geographical coverage, even in areas where there is currently little to no activity due to the remoteness of the area from the recycling supply chain?

What features of systems and funding are necessary to ensure a move away from less effective methods of separation (such as picking from bins and dump sites) to more effective methods (such as interception/incentivised source segregation and organised sorting from refuse picking lines)?

4.2 Supporting and Developing Reuse Systems

Reuse systems exist in lower scale waste management systems, but the extent to which waste pickers and/or informal economy workers are involved and contribute to these systems is not clear. Perhaps it is reasonable to say that the level of involvement is relatively low in the existing systems. Either way, to drive transition to a resource efficient circular economy in line with the Goal, we will need to see further developments of these systems to replace single use packaging.

What methods of facilitating and funding a meaningful increase in reuse systems are needed?

How much single use packaging, and in which formats, is likely to be reduced by reuse systems?

What would the reduction in single use packaging mean for waste picker incomes?

To what extent will reuse systems develop new, clean and green work and what are the opportunities for integrating waste pickers and workers in the informal economy?

4.3 Achieving Economic Efficiency

Achieving the Goal will necessitate collecting all plastics and therefore will require efficient collection systems. Having competing parallel collections in both the informal and formal economies will bring about a duplication of effort and potential inefficiencies. To be efficient in the future, the overall recycling supply chain will surely need investments to adequately plan, avoid duplication, and safeguard local livelihoods.

How can those investments and the associated changes to working methods be planned for and realised, taking into account the complexity of the organisational arrangements that currently exist?

How can future systems be best organised to avoid duplication of effort and to allow for efficient logistics?

How can arrangements for ownership and control of separated plastics be made in such a way as to provide certainty for high quality recycling infrastructure investment?

4.4 Transitions between Informal and Formal Economies

The language around how waste pickers may transition between working methods and organisational structures is often unclear. Concepts such as “integration” into any new system are often referred to without clear meaning. What remains unclear is, to achieve an efficient outcome of the Goal, the extent to which it will be necessary to move jobs from the informal sector to formal jobs.

Is moving jobs from the informal to formal sector a necessary outcome? And if so, how can it be achieved without discrimination, and whilst respecting the dignity and rights of individual waste pickers?

How can effective systems operate at scale if they involve integration of informal economy workers without further formalisation of this work?

How can additional money be invested into informal economy workers fairly and equitably, so that it does not have unintended discriminatory outcomes?

How will those paying into the system ensure they get a good outcome in circumstances where workers are effectively self-employed and direct their own work?

Concepts around gig economy type methods are often discussed as a method of addressing some of these issues. Have gig economy methods been demonstrated to be effective in this context?

5.0 Recommendations

Prioritise a Just Transition: It is vital to place workers in the existing informal economy and a just transition at the forefront of considerations when developing the plastic pollution instrument and its related policy measures. Acknowledging and addressing the impact on waste pickers is essential for equitable and sustainable solutions.

Conduct Further Research: Given the complexity of the issues involved, further research before INC-4 is required to test the hypothesis that effective circular economy plastics systems, developed and funded within the next 10 years, can also ensure a socially just transition. This research should address the questions proposed in this paper and be open to exploring lines of enquiry that emerge during the analysis, in order to better understand the current and potential future systems for a circular economy for plastics in all regions of the world.

Encourage Stakeholder Engagement: Reloop invites active engagement with all relevant stakeholders, including NGOs, waste pickers, municipalities, national, regional and local governments, brand owners, and other impacted parties. Inclusive collaboration will foster a comprehensive and holistic approach to address plastic pollution, ensuring diverse perspectives are considered in the development and implementation of solutions.

6.0 Conclusion

In our shared ambition to combat plastic pollution, we should focus both on the environment and the dignity and equity of every individual impacted by this global challenge.

By actively engaging with diverse stakeholders and conducting thorough research, we can ensure that a just transition and the inclusion of the existing informal economy are central tenets of effective circular economy systems for plastics, and therefore an integral part of the solution to the plastic pollution crisis.