PREPARING INFORMAL RECYCLER INCLUSION PLANS:
an operational guide

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IRR Regional Initiative for Inclusive Recycling

IDB Water and Sanitation

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PREPARING INFORMAL RECYCLER INCLUSION PLANS:

AN OPERATIONAL GUIDE

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IRR Regional Initiative for Inclusive Recycling

This guide was developed in the framework of the Regional Initiative for Inclusive Recycling, a four year partnership developed by the Multilateral Investment Fund and the Water and Sanitation Division of the Inter-American Development Bank, the Avina Foundation and Coca Cola Latin America to integrate informal waste collectors and recyclers into the formal recycling market.

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LIST OF ACRONYMS

ESG	Environmental and Social Group
IDB	Inter-American Development Bank
IP	(Informal Recycler) Inclusion Plan
ITB	Itinerant Waste Buyer
LRP	Livelihoods Restoration Plan
MRF	Materials Recovery Facility
MSW	Municipal Solid Waste
NGO	Non Governmental Organization
PAP	Project Affected Person
PPE	Protective Personal Equipment
RAP	Resettlement Action Plan
SWM	Solid Waste Management
TOR	Terms of Reference
WSA	Water and Sanitation Unit

PREFACE

In all big Latin American and Caribbean (LAC) cities there are people who make their living out of the informal collection and selling of recyclable materials.

They are generically known as "informal recyclers", although their name varies by country: "*pepenadores*" in Mexico; "*catadores*" in Brazil; "*cachureros*" in Chile. In LAC, there are at least 1 million people engaged in the collection, separation and selling of recyclable materials such as cardboard, paper, glass, plastic or metal.

A significant percentage (70%) carries out its activities in open dumps, under precarious health and working conditions. Open dumps continue to be one of the most common solid waste final disposal sites in the region (about 40%). Gradually, their closure and the construction of sanitary landfill is becoming a policy priority in the region.

The process of closing an inadequate final disposal site represents an opportunity to improve the life and working conditions of the recyclers. It represents an opportunity to implement actions that provide recyclers and their families upgrading options, primarily within the solid waste sector, and to promote their organization and integration into formal solid waste management systems.

The Operational Guide for Preparing Informal Recycler Inclusion Plans was elaborated with this goal: provide professionals and decision makers with operational tools for the inclusion of recyclers working at final disposal sites.

Developed in the framework of the Regional Initiative for inclusive recycling, a partnership between the Water and Sanitation Division and the Multilateral Investment Fund of the Inter-American Development Bank , the Avina Foundation and Coca-Cola Latin America, we hope this guide represents a useful tool to improve the design and implementation of solid waste projects.

Alexandre Meira da Rosa
Infrastructure and Environment Sector Manager
Inter-American Development Bank

INTRODUCTION

WHAT IS THE GOAL OF THIS GUIDE?

To assist practitioners and decision-makers engaged in the preparation and implementation of inclusion plans[1] for informal recyclers working at final disposal sites[2]. The key question addressed by this Guide is how to work with informal recyclers and other actors in the development of viable and sustainable solutions – both within and beyond the existing waste stream – that will allow informal recyclers affected by solid waste projects, such as the construction, rehabilitation or closure of final disposal sites, to maintain or increase their incomes in improved working conditions.

BACKGROUND

This Guide is part of a broader set of activities being developed under the Regional Initiative for Inclusive Recycling, a partnership among the Water and Sanitation Division and the Multilateral Investment Fund of the Inter-American Development Bank (IDB), the Avina Foundation, and The Coca Cola Company, established with the goal of integrating informal recyclers into formal recycling markets. As part of this Initiative, a full-day workshop was held at IDB headquarters in Washington DC that brought together a diverse group of global experts on the subject. One outcome of that workshop was a general agreement on the need for clearer guidance for practitioners and decision-makers engaging with the informal waste and recycling sector. This Guide is a response to that need.

To help bring the necessary depth and practical utility to this Guide, a multi-actor process was pursued that engaged a range of global experts from donor institutions, civil society, academia and recycler organizations in various fields, including solid waste, recycling, involuntary resettlement, environment and economics. The result of this process should be seen as an open document that will continue to be tested in practical contexts and revised as experience of its application grows.

TEXT BOX 1: POTENTIAL KEY STAKEHOLDERS AT A FINAL DISPOSAL SITE

* Informal recyclers (those directly affected groups and those active elsewhere in the solid waste management system)
* Intermediaries (dealers, junk shop owners)
* Food vendors and other secondary goods and services providers
* Municipal and other government authorities
* Local solid waste management system managers
* Site operators and service providers
* Private businesses (producers and buyers of recyclable materials, and potential partners)
* The local community and its representatives
* NGOs
* Recyclers organizations, networks and movements
* Academic institutions
* Independent experts
* Other actors competing for recyclable materials

WHO SHOULD USE THIS GUIDE?

This Guide is aimed at practitioners and decision-makers working with or for donor agencies, municipal, state and national governments, non-governmental organizations (NGOs), private consulting firms, academic institutions, informal recycler organizations, recycling firms and other private sector companies seeking to prepare and implement a plan for informal recyclers at a final disposal site.

While the development of a truly integrated and participatory plan will engage a number of stakeholders (see Text Box 1), it is generally a municipal, state or national government agency that is responsible for developing the plan, often with financial and technical support from one or more multilateral and/or bilateral donor organizations. The execution of certain tasks may also be contracted or delegated to an NGO, private consulting firm or other entity. Other actors may also participate via stakeholder committees and participatory processes.

WHEN SHOULD THIS GUIDE BE USED?

This Guide is intended for use when a solid waste or urban upgrading project is planning to intervene at a final disposal site at which people are already earning income from the informal recovery of recyclable materials. Such interventions can negatively impact these informal recyclers by reducing or eliminating their access to the recyclable materials on which they depend, yet they can also provide an opportunity to integrate them more fully, fairly, safely and productively into the broader municipal solid waste management system and recycling market. As a vulnerable group or as small-scale private sector entrepreneurs who already play a productive role in the local waste and recycling systems, informal recyclers can themselves be the legitimate focus of projects aimed at strengthening, formalizing or upgrading their work and building more inclusive recycling systems, regardless of whether or not they are negatively impacted by an infrastructure project.

WHO ARE INFORMAL RECYCLERS?

The term "informal recycler"[3] refers to persons engaged in the recovery and sale of recyclable materials in the municipal waste stream. Informal recyclers may operate at any point in the waste stream, but may generally be divided into four categories:

1. **Itinerant waste buyers** (mobile recyclers who go door-to-door, collecting, buying or bartering for materials, before they have entered the official waste stream)
2. **Street recyclers** (mobile recyclers who recover materials from private trash-cans or public bins prior to formal collection)
3. **Truck recyclers** (mobile recyclers – often formal municipal or private-sector employees – who informally collect resalable materials with trucks along collection routes)
4. **Dump recyclers** (stationary recyclers based at specific disposal sites who recover recyclables brought in by trucks for final disposal)

This Guide is focused on the last group: informal recyclers who operate at final disposal sites, such as landfills or open dumps.

TEXT BOX 2: HOW DO INFORMAL RECYCLERS ENTER SOLID WASTE PROJECTS?

* As an affected group due to their loss of access to recyclables and income via the closure or upgrading of disposal sites under solid waste projects
* As a stakeholder group in urban upgrading interventions
* As public policy actors
* As a potential asset to the formal system

While their work generally provides them a steady daily income – which can even compare favorably with the incomes of formal waste workers – informal recyclers are often drawn from the poorest and most vulnerable sectors of society and face multiple challenges, from health and safety risks to exploitation and harassment.[4] At the same time, informal recyclers are productive agents whose work not only supports them and their families, but can provide the basis for entire local economies and international recycling chains. Informal recyclers account for 25-50% of municipal collection of recyclables in developing countries.[5] In many places, virtually 100% of all recyclable materials collected are done so by them. Their work brings recycling rates in some developing countries to the levels of developed countries (UN-HABITAT 2010). Their work can also save the system money by extending landfill life, reducing hauling costs and the need to extract or produce new materials.

While informal recovery has long gone unrecognized – and even been treated as a form of criminality – a growing number of countries, particularly in Latin America, have in recent years begun adopting policies to protect and promote informal sector participation in solid waste management.[6]

Integrating informal recyclers into municipal solid waste management systems presents a set of challenges and opportunities. When successful, such work can enhance system performance and envi-

ronmental sustainability while maintaining – and even improving – the livelihoods, working conditions and opportunities of recyclers.[7] The social and environmental "safeguard" policies[8] of International Financial Institutions (IFIs) such as the IDB can provide useful entry points for this work, by committing projects to avoiding, mitigating or fairly compensating negative impacts on the assets, income, and access to resources of recyclers. The basic standard of such policies is that informal workers should improve – or at the very least maintain – their pre-intervention incomes while improving their working conditions.[9] Waste picker inclusion or upgrading activities can also be done in the absence of any project impacts as worthwhile activities in their own right.

HOW IS THE GUIDE STRUCTURED?

The main body of the Guide provides a step-by-step review of key actions to be taken in the development of a plan for maintaining or improving the livelihoods of informal recyclers based at a final disposal site. The process for preparing, implementing, and monitoring a plan is divided into 3 Phases, which are in turn divided into 7 Steps and finally into 36 Tasks.

The 3 Phases are:

I.Pre-Preparation	II.Preparation	III.Implementation

Phase I (Pre-Preparation) consists of Step 0 and includes the preliminary actions that must be taken before a Plan can be prepared. Phase II (Preparation), consists of Steps 1-5, and follows the process of preparing a Plan. Phase III (Implementation) consists of Step 6, and includes all actions after a Plan has been prepared, from gearing up for implementation to reporting and analysis, measurement of results, and development of an exit strategy. The focus of the Guide is on Phase II (Preparation), but it also provides information on the other two Phases.

Phase I (Pre-Preparation) consists of Step 0 and includes preliminary actions to be taken before a plan can be prepared. Phase II (Preparation), consists of Steps 1-5, and follows the process of preparing a plan. Phase III (Implementation) consists of Step 6, and includes all actions after a plan has been prepared, from initial steps for implementation through reporting and analysis, the measurement of results, and the development of an exit strategy. While the Guide is specifically focused on Phase II (Preparation), it seeks to provide sufficient information on the other two Phases as well.

STRUCTURE OF THE GUIDE

I. PRE-PREPARATION	**STEP 0**	»	Identify the Need for a Plan
	STEP 1	»	Define the Goals and Scope of the Plan
	STEP 2	»	Engage the Stakeholders
II. PREPARATION	**STEP 3**	»	Collect Data
	STEP 4	»	Develop Inclusion Options
	STEP 5	»	Write and Submit the Plan for Approval
III. IMPLEMENTATION	**STEP 6**	»	Implement, Monitor, and Follow Up on the Plan

Figure 1: Phases and Steps for Preparing a Plan

Each Step begins with a summary of:

* The Goal of the Step
* The Context necessary to understand the Step
* The key Actors responsible for execution of the Step
* The specific Tasks to be undertaken
* The Results to be expected on completion of the Step

The Guide includes brief case descriptions which seek to provide concrete examples of how specific Steps and Tasks were applied in practice, illustrating some of the successes and challenges of various approaches, and measures to overcome challenges. Sample documents in the annexes provide templates for many of the basic tools that may be used at different points in the process. The Guide also contains a special section is dedicated to the description of the various types of actions that may be pursued under a plan.

It is recommended that the team read the entire Guide before starting the process; to read each entire Phase before starting that Phase; and to read each entire Step before starting that Step.

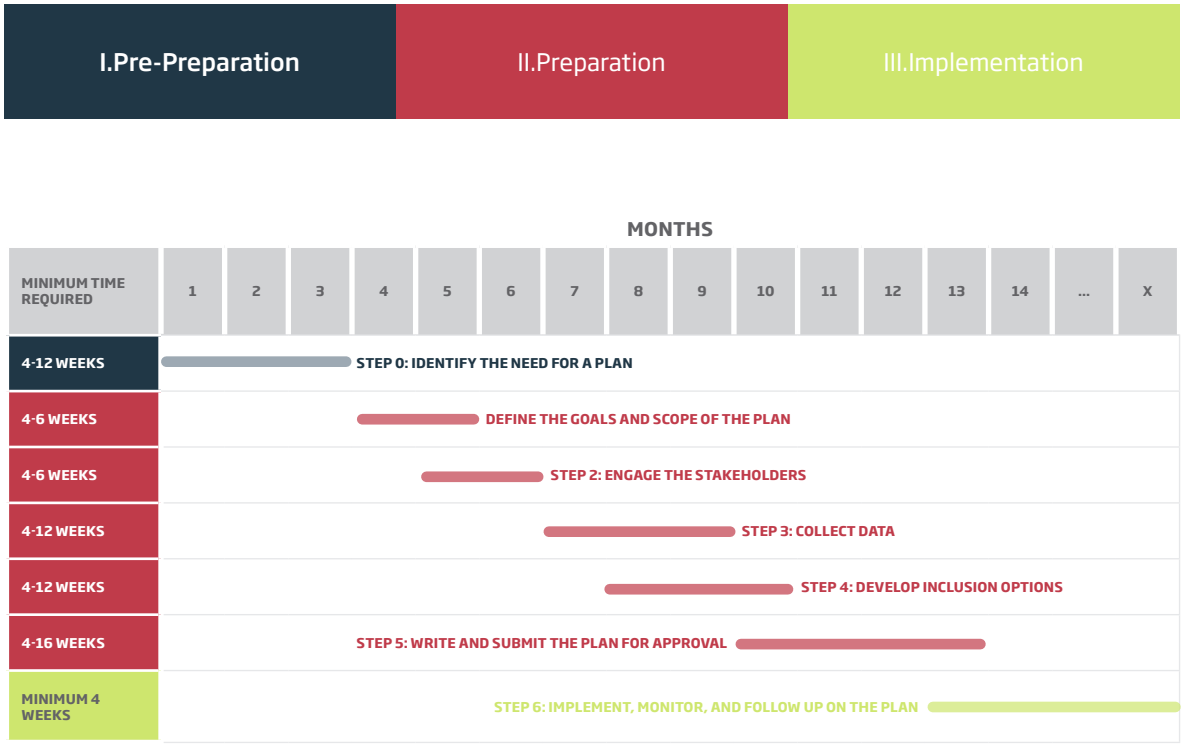

Figure 2: Indicative Timeline of Steps Required for Preparing a Plan

Although the specific amount of time necessary for the preparation of an Inclusion Plan is highly context dependant, it generally takes approximately 6-12 months (see Figure 2). It is also important to note that where there is a related infrastructure project, this timeline be linked to the broader project timeline.

The preparation and implementation of an inlcusion plan for recyclers should be a flexible and iterative process.[10] The specific content, order, actions, and outputs cannot be absolutely determined in advanced for any given case. Changes and adaptations may be found to be necessary as the process unfolds. The order and content of actions provided in this Guide should be understood as general guidelines to be adjusted as necessary according to the specifics of the given situation. While the tangible output of Phase II (Preparation) is essentially a document, the purpose of that document is to record and support a process leading to viable and sustainable outcomes. While a well-designed plan can be a useful tool in helping to produce positive outcomes, other factors (such as the political will of authorities, the cohesiveness and initiative of the recyclers, and the quality of relationships on the ground) will also be critical in shaping outcomes.

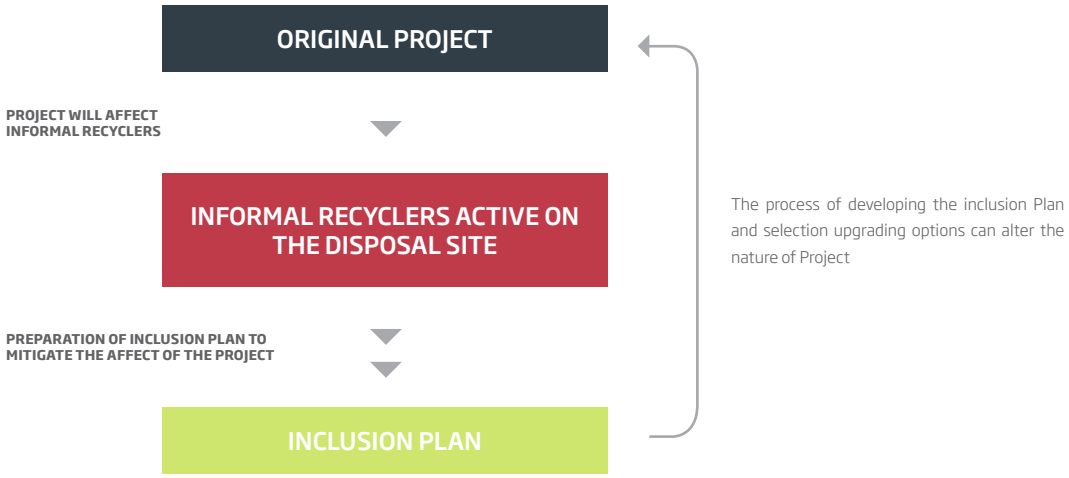

Figure 3: Relationship between the Inclusion Plan and the Project

Finally, the process of developing the plan is itself a multi-actor process that is essential to the determination of outcomes, both by suggesting modifications to the original project (see Figure 3) and by developing trust and cooperation among key stakeholders, buy-in, ownership and the enthusiasm that is so often necessary to ensure success.

WHAT STAKEHOLDERS ARE TYPICALLY INVOLVED?

Different groups and categories of actors are usually involved in the development of a plan. These may include:

* Plan Preparation Team
* Implementing Agency
* Municipal Authority (if different from Implementing Agency)
* Donor Agency
* Recyclers
* Intermediaries
* Others, depending on the context

The interests, roles and responsibilities of these various types of actor may differ, both among them and from context to context. An example of these interests, roles and responsibilities is included in the figure below.

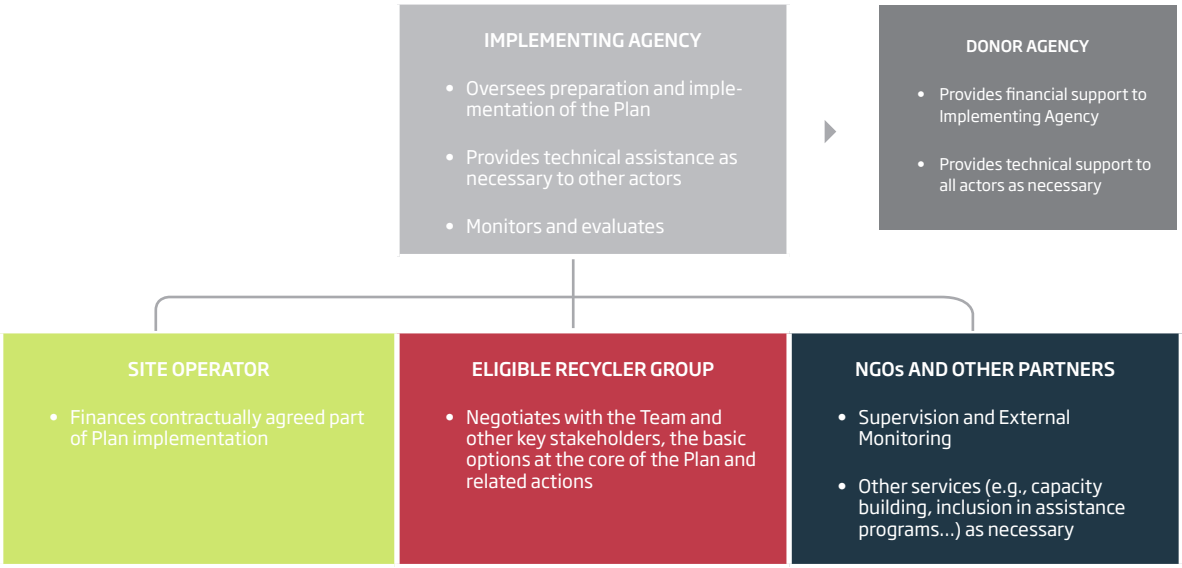

Figure 4: Interests, roles and responsibilities of the various actors involved in the process

BASIC PRINCIPLES

Experience with informal waste sector inclusion suggests certain key principles that should be borne in mind throughout preparation and implementation of a plan. A basic list might include the following:

1. Start early
2. Work closely with the project team
3. Meaningfully engage the recyclers
4. Get good data
5. Think holistically
6. Know what is being lost
7. Build on what exists
8. Offer multiple and meaningful choices
9. Compensate in kind
10. Develop partnerships
11. Engage policy
12. Ensure sufficient budget

It is best to support, upgrade and integrate existing institutions and activities wherever possible. Informal materials recovery carries not only risks and drawbacks, but benefits as well, and these should be understood and taken into account in the development of alternatives.

1) START EARLY

To be truly effective, the issue of recycler inclusion should begin at the very start of the project. Rather than first designing a project and considering its impacts only after it has been designed, a serious approach to informal sector inclusion should be introduced from the beginning as an integral part of project design.

2) WORK CLOSELY WITH PROJECT TEAM

If preparation and execution of the plan is part of a broader project, they should not be pursued as a standalone activity, but fully integrated into that larger project. Nor should they be left to "social specialists," but rather engage the technical, environmental, financial and other project staff. The team preparing the plan should be integrally involved in the broader process of the hiring agency and any specialists supervising them should equally be involved in their teams (including on missions and in meetings, copied on emails, etc.). The social aspects and tasks should not be "ghettoized" and where possible, should be allowed to provide inputs to technical and other project design and implementation issues, rather than simply reacting to them.

3) MEANINGFULLY ENGAGE THE RECYCLERS

Recyclers should be engaged, not in a pro forma but in a meaningful way, as the central actors in the transformation of their own situation. Their participation should be a process of informed communication that continues throughout all phases of preparation and implementation. Their concerns and opinions should be actively solicited as a key input to the definition of goals, setting of priorities, development of strategies, and development of actions.

4) GET GOOD DATA

In order to develop options that are truly viable and sustainable, it is important to have a good understanding of the living and working conditions of the relevant recyclers, their incentives and motivations, organizational structures, relations with other actors, and the broader market and socio-political context in which they operate. The gathering of accurate, comprehensive and relevant information is a critical part of a plan's success.

5) THINK HOLISTICALLY

Informal recovery is a strategic response to a broad set of socioeconomic factors. Efforts to change or replace recyclers' activities should thus be based on a multidimensional and comprehensive understanding of their work and situation. Rather than attempting to solve specific "problems" in isolation, it is preferable to understand the broader range of issues of which they are a part. Simply banning children from dumpsites and sending them to school, for example, does not address the lost income to their families' or the social stigmas they may face at school without proper support.

6) KNOW WHAT IS BEING LOST

Informal materials recovery carries not only risks and drawbacks, but benefits as well, and these should be understood and taken into account in the development of alternatives. In developing a strategy to compensate, replace or improve an existing situation, it is important to understand both the advantages and disadvantages of that situation. While recovering materials from dumpsites may seem unacceptable to outsiders, this activity has multiple advantages that must be adequately assessed before alternatives can be developed. Informal recyclers often earn incomes that are quite high compared with those otherwise available to them. They may relish their independence. They may prefer the entrepreneurial model of being paid for the value of the materials they collect as opposed to a fixed wage or the daily cash flow rather than a monthly check. Women may find it easy to do this work while caring for children. Those with jobs but in need of extra income may appreciate the flexible hours that allow for work at night or on weekends, and so on. It is thus crucial to identify the true nature and extent of impacts on these existing activities and advantages so as to be able develop appropriate mitigation measures.

7) BUILD ON WHAT EXISTS

It is best, wherever possible, to support, upgrade and integrate existing institutions and activities. Actions that represent a complete departure from existing arrangements and activities carry greater risk, while those that use the existing situation as a starting point tend to be more viable. It is thus critical to identify and work with the recyclers' existing institutions, social arrangement and modes of work, and to avoid where possible the creation of induced or parallel structures.

8) COMPENSATE IN KIND

It is generally preferable to address resettlement impacts through "compensation in kind." This follows from the basic donor policy principle of 'do no harm'. If a person loses their home but gains a job, for example, they are still worse off in terms of shelter. If they gain a home but lose their job, they are still worse off in terms of income. What recyclers generally lose in a disposal site closure is access to regular daily income (or, more specifically, access to materials that they can sell). What is generally to be maintained or restored, therefore, is regular access

to recyclable materials in quantity and quality at least equal to pre-intervention levels or, failing this, access to an alternate form of regular income at least equal to pre-intervention levels (preferably including some form of sufficient daily cash-flow). Cash compensation should thus be avoided where possible, as a relatively steady, stable and long-term income source such as waste picking cannot be replaced by a one-time cash payment, however large. Incomplete solutions such as training professional courses do not in themselves restore lost income and must thus be applied with care.

9) OFFER MULTIPLE AND MEANINGFUL CHOICES

Recycler populations are rarely homogenous and different members of any given group are likely to have different skills sets, needs, and aspirations. It is thus important to provide differentiated solutions that can accommodate that heterogeneity. Each recycler should be offered clear and meaningful choices and allowed to weigh their relative costs and benefits. Options should be truly comparable, taking into account aspects such as risk, flexibility, independence, mode of remuneration, and timing. As a general rule of thumb, no less than three (3) distinct solutions should be recommended. It is also possible to offer a "mix" of options to account for the various risks and drawbacks of each solution (for example, by complementing non-daily forms of income with daily ones to help maintain existing cash flow).

10) DEVELOP PARTNERSHIPS

Developing strong partnerships with a broad range of actors who are already engaged in the physical area or sector can increase the plan's scope of action and prospects for sustainability. This may include existing government programs at the municipal, state and national levels, NGOs, Community-Based Organization (CBOs), private sector entities, and other recycler groups and networks. A careful identification and assessment of all relevant stakeholders should be conducted early in the plan preparation process, and each actor's roles and responsibilities clearly defined.

11) ENGAGE POLICY

To the extent possible, actions on the ground should be complemented by efforts to strengthen incentives in the broader solid waste system. An analysis of the relevant national, sub-national, and policies and legislation should guide the development of actions. New policies should be considered, developed and advocated for where necessary or beneficial. The Plan may also consider coordinating with any strategic waste planning processes that are ongoing in the local municipality, state or country.

12) ENSURE SUFFICIENT BUDGET

While the amount of budget necessary to implement a plan can vary considerably, depending on the context and types of actions contemplated, any serious plan will require a budget. Care should thus be taken to ensure that adequate funds are made clearly available from the outset for any activities included in the plan.

PHASE I: PRE-PREPARATION

STEP 0: IDENTIFY THE NEED FOR A PLAN

Objective

To determine the need for a Plan / To define the type of Plan to prepare / To put in place the basic conditions for its preparation

OBJECTIVE

To determine the need for a Plan / To define the type of Plan to prepare / To put in place the basic conditions for the Plan's preparation.

CONTEXT

This initial step is labeled "Step 0," as it occurs before actual Plan preparation begins. It refers to the actions to be undertaken for a Plan to be prepared. While this Guide is mainly addressed at the Team that will prepare the Plan, this phase usually precedes the definition of that Team, and may be undertaken by the government Entity ("Implementing Agency") responsible for the related solid waste project. It also generally precedes direct involvement of the recyclers, as it still remains to be defined at this stage whether any recyclers are affected and in what way, what sort of actions will be undertaken, and if a Plan needs to be developed at all.

ACTORS

The Implementing Agency is generally responsible for conducting initial screening. If donor funding is involved, the Donor Agency may also be involved in the

I. PRE-PREPARATION	**STEP 0**	»	Identify the Need for a Plan
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process in order to ensure compliance with its safeguard policies. The Municipality (where not the Implementing Agency) and/or any relevant state or national agencies should also be included. The recyclers should be engaged as early as possible, and may be involved in early site visits, including Initial Screening. Great care should be taken in engaging them, however, until a clear idea of the nature, scope, timeline and budget of any planned actions have been defined, so as to avoid the spreading of false information and/or expectations.

TASKS

1. Conduct initial screening
2. Determine type of Plan to prepare
3. Form Plan Preparation Team

RESULTS

* Initial Screening Report completed, indicating the estimated number of affected persons and the nature and scope of impacts
* Applicability of national law and donor safeguards policies determined
* Decision to prepare a Plan taken
* Terms of Reference for Plan Preparation Team prepared
* Plan Preparation Team formed or hired

TASK 0.1 CONDUCT INITIAL SCREENING

All solid waste projects with potential livelihoods impacts should be screened for the presence of informal recyclers and other persons who may be economically affected by their actions (this may include intermediaries, food vendors, and other providers of secondary goods and services). The screening process should involve several site visits (as a single visit may be insufficient to gain an adequate understanding of the numbers of people at the site), as well as interviews with diverse actors familiar with the site. The results should be recorded in a brief report, detailing available information on:

1. The estimated number of people engaged in informal work at the site
2. The various categories of affected people
3. The types of potential impacts on their incomes, livelihoods, goods, structures, shelter, housing, and access to resources
4. The estimated extent and duration of the impacts

Informal recyclers often live on or adjacent to the disposal sites at which they work. They may be divided into several categories, based on the types of potential impacts of a given intervention on them:

1. Living but not working at the site
2. Working but not living at the site
3. Both working and living at the site
4. Not physically present at the site but dependent on the flow of materials from it

In determining impacts, it is helpful to distinguish among:

1. Sites to be closed, where land is taken under the intervention or access to it restricted
2. Sites to be closed, where land is not taken nor access restricted
3. Sites to be upgraded, with access altered or restricted
4. Other points in the waste system where access to income and/or materials may be impacted (e.g., via changes in management, collection arrangements or pricing structures)

Learning about a final disposal site is an ongoing process. One should not wait for formal data collection activities (discussed in Step 3) to begin gathering observational, documentary and anecdotal information on the local situation. Text box 3 gives examples of key issues to bear in mind when approaching a new site, often through informal discussions with local actors. It is helpful to keep a list of such issues from the beginning and refine it as further data is collected.

TEXT BOX 3: INITIAL QUESTIONS TO ASK WHEN APPROACHING A DISPOSAL SITE

Data collection on key aspects of the site and its population should begin from the very first contact with the site. Initial questions to explore may include the following:

* The level of control exercised over the site by authorities (is there a fence? adequate policing of entry? a site-entry registry?)

* The basic demographic composition of the recycler population

* Their mode of work (are they working at the disposal site or elsewhere in the system? is recovery their sole or primary source of income? do they work full- or part-time, occasionally or seasonally?)

* Place of residence and means of transportation to the site

* Level of and potential for organization, internal social structure, stratification and division, and risk of elite capture

* Relationships with external institutions (e.g., political parties, local government, NGOs, broader recycler organizations and networks, CBOs, religious organizations, private businesses…)

* The technical, organizational and economic structure of the local SWM system, both formal and informal

* The presence of intermediaries or other forms of private sector competition and/or cooperation

* The potential and limitations of the local recyclables and related markets (how many buyers are there? do transactions take place on- or off-site? what type of materials are sold? in what quantities and at what prices? what is the role of intermediaries and the nature of their relationship with the recyclers? who is responsible for transport? where do the materials go once sold? what are the estimated profit margins perceived at each step in the chain?)

* The key stakeholders (e.g., their identity, nature, roles, positions, perceptions towards other stakeholders, relationships, knowledge and experience of the activities on the site, incentive structures, latent or manifest conflicts, potential for strengthening, etc.)

* The expressed needs, concerns and opinions of the recyclers themselves (e.g., to work in the waste or another sector, collectively or individually, with a salary or paid according to production, etc.)

* Identification and mapping of power relationships among the recyclers, along the recycling chain, with site authorities and other key actors, etc.

* (Are there only one or several buyers? Do transactions take place on- or off-site? What are the materials sold? What are the quantities of materials sold? What is the role of intermediaries? How are relationships between recyclers and buyers? Is there a monopsy or is the selling market relatively free? Which parties are responsible for transport? What is the ultimate destination of the materials? What are the pricing mark-ups and profit margins materials throughout the chain?)

* The key stakeholders (e.g., their identity and nature, respective roles, positions, perceptions towards other stakeholders, relationships, knowledge and experience of the activities on the site, existing incentive structures, latent or manifest conflict, the potential for strengthening or reform of existing legislation and institutional arrangements, involvement of organized crime, etc.)

* The expressed needs, concerns and opinions of the recyclers themselves (e.g., to work in the waste or another sector, collectively or individually, with a salary or paid according to production, etc.)

* Identification and mapping of power relationships among the recyclers, the recycling chain, site authorities, etc.

* The involvement, capacity and political will of local government, and implementing agencies to work with recyclers

TASK 0.2 DETERMINE TYPE OF PLAN TO PREPARE

The site visits and related investigations should help to determine whether a Plan is needed and, if so, what type of Plan. Figure 5 outlines the decisionmaking process for this.

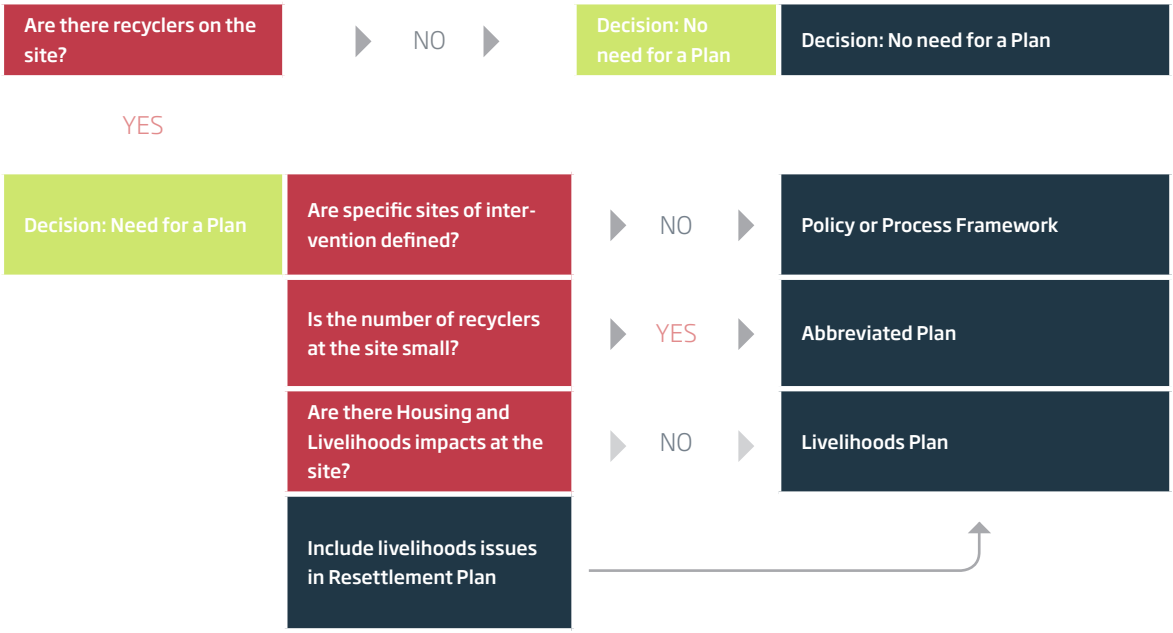


Fig. 4: Determining the need for a Plan and type of Plan to prepare

No Plan

If no one is working at or using the site in any way, there is probably no need for a Plan. Determining this, however, will demand a careful analysis to confirm that no one owns land, structures or other property at the site; is living on or working there, formally or informally; or is using it to generate income or access resources. A Screening Report documenting the findings of Initial Screening, and preferably verified by a second source, is usually sufficient to show that a sufficient investigation has been undertaken and that no further actions are needed. Where national or local laws are involved, this is a decision for the relevant government authorities. Where donor funding is involved, the Donor Agency may also make a determination as to whether a Plan is needed.

TYPES OF PLANS

These are the different types of plans that may be developed after initial screening is conducted:

* Inclusion Plan
* Resettlement Plan
* Abbreviated Plan
* Policy Framework
* Process Framework

Inclusion Plan. An Inclusion Plan (or "Livelihoods Restoration Plan", "Informal Sector Upgrading Plan," "Formalization Plan," etc.) is a plan devoted exclusively and explicitly to livelihoods issues. Although it can be structurally similar to a Resettlement Plan and based on similar principles and procedures, it is a stand-alone document prepared to identify viable and sustainable solutions to allow informal recyclers affected by solid waste projects to maintain or increase their incomes in improved working conditions. An Inclusion Plan may be developed as a complement to a physical resettlement document. Where there is no physical resettlement, only an Inclusion Plan needs to be prepared.

Resettlement Plan. Where there is a combination of housing and livelihoods impacts, recyclers may be included as a distinct category in a broader Resettlement Plan for the site. For clarity and ease of use, however, it is still advisable to prepare a separate Plan for each distinct type of impact, as the specific groups involved and types of actions taken may be quite different. Other livelihoods impacts (e.g., agriculture, vending, services…) may also be included in either Plan or themselves treated separately in a stand-alone document.

Abbreviated Plan. Where impacts are partial or minor, or the number of persons affected very small, it will still be necessary to prepare a Plan, but its scope and nature may be reduced so as to keep its size, complexity and budget in proportion to the number of affected persons and extent of impacts. Providing the basic elements to undertake limited actions while avoiding work that would be disproportionately costly or onerous is the purpose of an Abbreviated Plan (whether it is a question of an Abbreviated Resettlement Plan or Abbreviated Inclusion Plan). The Team may either prepare an Abbreviated Resettlement Plan that also includes livelihoods impacts to recyclers or a stand-alone Abbreviated Inclusion Plan to complement any physical resettlement document. It is advisable, however, to choose this option only where the numbers of affected persons are quite small (e.g., less than 50), as livelihood restoration measures for recyclers can be quite complex.

Policy Framework. Where specific Project actions and/or sites of intervention are as yet undefined, it may not be possible to prepare a Plan, as the necessary basic information on impacts and affected persons is still lacking. In such cases, it may be possible to prepare a Framework, outlining the key issues, basic principles and recommended steps to be taken in the preparation of any future Plan if and when specific livelihoods impacts are identified.[11]

Process Framework. Some donor policies explicitly cover the restriction of access to resources in legally designated parks and protected areas as a form of resettlement impact. The type of Plan prepared for such cases is called a Process Framework. Its purpose is to develop a participatory process for ensuring continued access of the affected population to the resources in question or adequate alternatives. Such approach can in some cases provide a useful model for addressing loss of access to materials at final disposal sites.

This Guide will focus on the preparation of an Inclusion Plan, essentially modeled on the structure of the standard Resettlement Plan, but intended as a stand-alone document that could also complement any physical Resettlement Plan prepared under the same project. The information provided in this Guide should also help the Team to prepare these other types of documents as well (in the case of a resettlement plan, it should provide the tools necessary to prepare any aspects specifically related to economic impacts on informal recyclers).

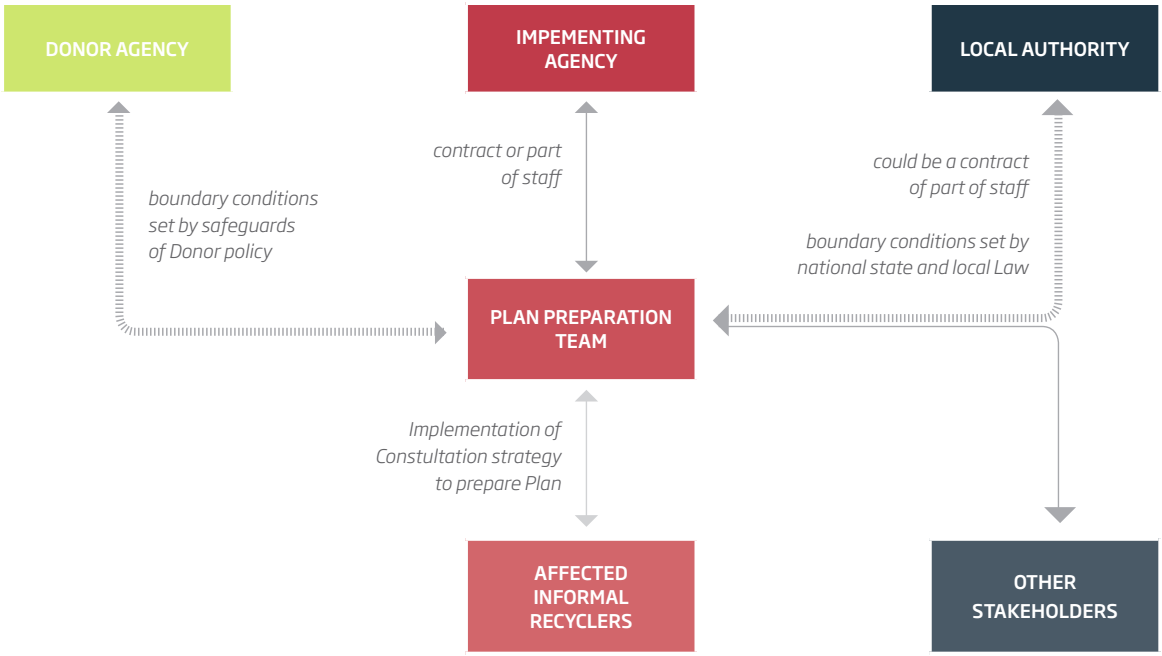
TASK 0.3 FORM PLAN PREPARATION TEAM

Where the presence of informal recyclers and potential impacts on them have been identified through Initial Screening, and the need to prepare a Plan determined, it is necessary to have a qualified Team in place to develop the Plan. The Implementing Agency may thus do one of the following:

* Hire the necessary specialists
* Train and/or reallocate existing personnel
* Contract an independent team (e.g., NGO or consulting firm)

This Team may either be part of the Implementing Agency of the related Project or of the relevant Municipal or State authority (in many countries, solid waste management is the responsibility of the Municipality). The Team may also be contracted separately by one of these authorities. Sometimes the Donor Agency contracts the Team directly. Any informal sector support or advocacy organizations already working with the recyclers may also be included in – or themselves constitute – the Team, or at least be part of any accompanying representative advisory committee or council that may be formed under the Plan.

The diagram below describes the relationship between the Plan Preparation Team and the various stakeholders in the Plan preparation process.



The size and composition of the Team should vary according to the size and situation of the specific recycler group, the scope and nature of the related Project, the characteristics of the existing solid waste management system, and other specifics of the local context. While in some cases it may be possible for a single specialist to prepare and implement a Plan, it is generally preferable to have a multidisciplinary Team. Key members to consider including in such a Team are:

* A coordinator and/or administrator
* A social specialist with the appropriate linguistic and cultural knowledge
* A waste management and/or recycling specialist
* An involuntary resettlement specialist (where applicable)

Other specialists as necessary (e.g., informal livelihoods, small business development, environmental education, health and safety public participation, land tenure, legal, conflict resolution…)

These skills sets may be consolidated among a smaller number of specialists. Some specialists can be hired full-time, while others may be brought in strategically for specific tasks. Alternately, an outside consulting firm or NGO can be contracted (although the Implementing Agency should still have a designated staff person overseeing the activity).

The identification, hiring, training, and deployment of the Team should take place as soon as possible, so that the Plan can be prepared and implemented before any related works begin. It is also desirable, where possible, for the Team to remain the same throughout preparation and implementation (see sample Terms of Reference in ANNEX 1).

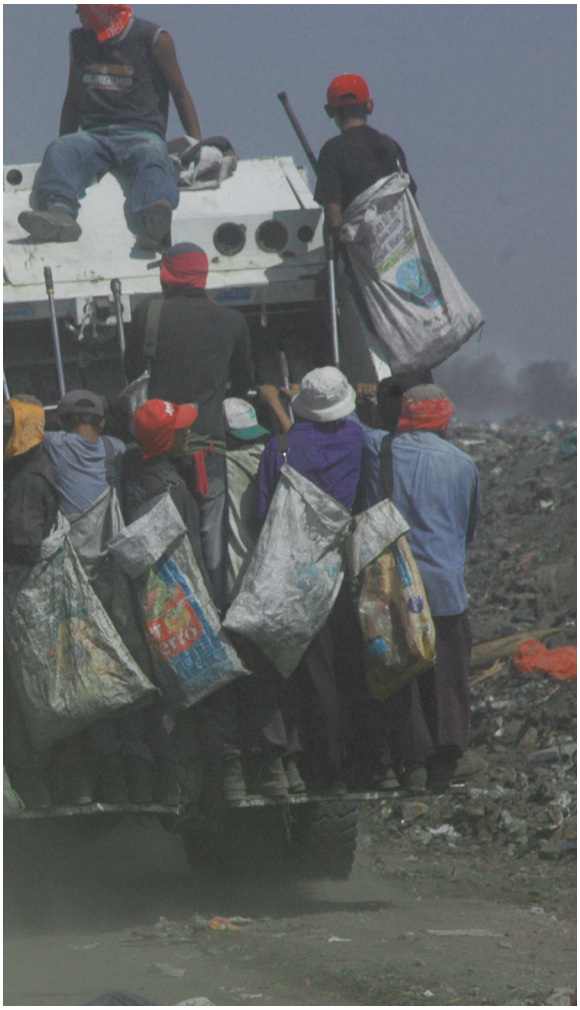
THE MAIN OUTPUTS OF STEP 0 ARE:

* Initial Screening Report, estimating the number of affected persons and nature and extent of impacts
* Determination of the need for a Plan
* Determination of the type of Plan to prepare
* Determination of the size and composition of Team
* Selection or hiring of Team

NOW THE TEAM IS READY TO BEGIN PLAN PREPARATION

PHASE II: PREPARATION

STEP 1: DEFINE THE GOALS AND SCOPE OF THE PLAN



OBJECTIVE

To complete all desk activities necessary to successfully engage the affected recyclers and other key stakeholders.

CONTEXT

In Step 0, the need for a Plan was determined as well as the type of Plan to prepare, and a Team was formed to prepare it. Step 1 concerns the initial actions that the Team (once hired/selected) must undertake, under the supervision of the Implementing Agency (and/or Donor Agency if relevant), before beginning the actual fieldwork. Most of the activities in this Step also precede direct involvement with the recyclers and other key stakeholders, as they mainly concern the preliminary organization and research necessary to better engage these actors.

ACTORS

The main actor in this process (Step 1) is the Plan Preparation Team.

I. PRE-PREPARATION	STEP 0	»	Identify the Need for a Plan
II. PREPARATION	**STEP 1**	»	Define the Goals and Scope of the Plan
	STEP 2	»	Engage the Stakeholders
	STEP 3	»	Collect Data
	STEP 4	»	Develop Inclusion Options
	STEP 5	»	Write and Submit the Plan for Approval
III. IMPLEMENTATION	STEP 6	»	Implement, Monitor, and Follow Up on the Plan

TASKS

1. Determine the Goals of the Plan
2. Define the Scope of the Plan
3. Prepare the Work Timeline
4. Draft the Plan Outline
5. Conduct a Desk Review
6. Conduct a Legal and Policy Review
7. Define the Institutional Arrangements for Plan Preparation

These Tasks may be conducted in parallel or in alternate orders.

RESULTS

* Basic goals of the Plan defined
* Scope of the Plan determined
* Timeline for Plan preparation completed
* Basic Outline of the Plan prepared
* Desk Review completed
* Legal and Policy Review completed
* Roles and responsibilities of all key actors determined

TASK 1.1 DETERMINE THE GOALS OF THE PLAN

The planning process should begin with a clear definition of goals, which should be clearly stated up front. Goals are often best divided into a general goal and specific objectives to operationalize that goal. Typical general goals are:

* To maintain or restore – at minimum – the incomes of all informal recyclers affected by the project
* To improve, where possible, their, health, safety and working conditions

Specific objectives may include:

* To increase the productivity and profitability of their existing work
* To provide them with adequate, reliable and safe access to recyclable materials
* To develop viable alternatives where this is impossible or undesirable
* To formalize their status and provide them with social recognition, legitimacy, and access to benefits
* To strengthen their capacity, skills and collective organization
* To address the needs of particularly excluded or vulnerable groups
* To eradicate child labor, in a fair, responsible and sustainable manner

Specific targets should further be developed for each of these objectives (e.g., percentage increase in productivity and/or income; measurable indicators of increased health and safety; number of alternatives developed and of persons successfully transferred to new activities; etc.). The prioritization of these goals and the development of strategies for achieving them should be done in close consultation with all key stakeholders, including the recyclers.

TASK 1.2 DEFINE SCOPE

Once the broader goals of the Plan have been defined, the Plan's target area, timeline, scope, and the basic limits of the activities for obtaining those goals must be clearly bounded. These various framings are collectively called the "Scope" of the Plan. The Scope should define: (1) the key issues to be addressed by the Plan; (3) its spatial limits; (4) its time frame; (5) the basic strategies to be pursued; and (6) the types of actions to be taken.

While the Plan may be focused on one or more disposal sites, these will invariably be part of a broader system of municipal waste management, urban services, infrastructure and governance, as well as a formal and informal recycling chain that absorbs the materials recovered. Although the site itself may have clear geographical boundaries, the broader context generally extends well beyond those boundaries, and the actions proposed in the Plan will almost invariably have to take these broader issues into account. A distinction can thus be drawn

between actions to be contemplated within the physical boundaries of the site – and thus within the control of site authorities – and actions beyond the site boundaries – and thus beyond the direct control of site authorities.

TASK 1.3 PREPARE THE WORK TIMELINE

The Plan Preparation Team's first Task should be to develop a Timeline for Plan preparation (corresponding to the rest of the Tasks to be undertaken in Steps 1 through 5). This Timeline should clearly indicate what the Team will do during the Preparation process and when. The Timeline can be subsequently updated as new information becomes available. An example is given in ANNEX 2.

TASK 1.4 DRAFT THE PLAN OUTLINE

The goal of the Plan Preparation process is to produce, in close consultation with the recyclers and other key stakeholders, a document that will guide the actions to be taken in pursuit of the previously defined objectives. It is also thus helpful to develop early on a draft outline of the Plan, into which the various elements can be incorporated as they are developed. A basic outline, similar to the one included in ANNEX 3, should have the following elements:

1. Objectives
2. Project Description
3. Potential Impacts Identified
4. Description of Recycler Population
5. Eligibility Criteria and Cut-off Date
6. Legal and Policy Framework
7. Consultation Strategy and Results
8. Grievance Mechanism
9. Proposed Upgrading Options
10. Institutional Arrangements and Capacity
11. Implementation Timetable
12. Estimated Budget

TEXT BOX 4: DONOR SAFEGUARD POLICIES

IDB, like other IFIs, has a set of environmental and social policies known as "safeguards." While several safeguard policies may be potentially triggered by a project's effects on informal recovery activities, it is generally Involuntary Resettlement (e.g., IDB's OP-710) that most directly applies. OP-710 may be interpreted to broadly cover both physical and economic displacement, including impacts on income and means of livelihood.xiv Some solid waste projects are further designated Environmental Assessment (EA) category "A", which implies the highest environmaental and/or social impact, and thus require a Social Assessment of any relevant livelihoods activities.

TASK 1.5 CONDUCT THE DESK REVIEW

One of the first actions to be undertaken by the Team is a thorough desk review of all existing information on the site, local recycler population, waste management system and recycling chain, including an evaluation of the accuracy and completeness of that information. This review should further seek to document the history and experience of any previous technical or social interventions at the site, as this can provide insight into both the current situation and the recyclers' attitudes towards new projects. It is also advisable to confirm, validate and complement this existing information through a participatory process, as the input of the recyclers themselves is often the most reliable source of information on their own current and past activities, location, numbers, etc.

It is also recommended at this point in the process to review all field data collected since Initial Screening and to identify key issues to be further clarified in the main Data Collection process (Step 3).

TASK 1.6 CONDUCT THE LEGAL AND POLICY REVIEW

Beyond data related to the site itself, any actions proposed in the Plan may also be affected by decisions already taken in broader planning documents or the legal and policy frameworks at the municipal, regional or national levels.[12] It is thus important to make an inventory of these and to assess the ways in which they may affect actions proposed in the Plan.

The Legal and Policy Framework determines the key parameters within which the Plan will be prepared. It should provide a comprehensive summary of all relevant local and national laws as well as of any donor policies that may apply (this latter determination is generally made by the Donor Agency itself). There are often gaps between government legal frameworks (which traditionally have tended to view informal activities as illegal), and donor policies (which tend to recognize certain basic rights of recyclers economically affected by projects they support). These gaps must be specifically identified in the Plan and measures to fill them proposed.[13]

The Legal and Policy Review should thus include a comprehensive summary of:

* All relevant national, regional and local legislation
* Any applicable donor policies
* Any gaps between the two
* Proposed measures for filling those gaps

Where gaps are found, it is the highest applicable standard that should prevail.

THE KEY OUTPUTS OF STEP 1 ARE:

* A Definition of the Plan's general and specific goals, as well as concrete targets for achieving these
* A definition of the Plan's Scope
* A Timeline for the Plan's preparation
* A draft Outline of the Plan
* A Desk Review
* A Legal and Policy Review
* A proposed set of institutional arrangements

HAVING DONE THIS INITIAL DESKWORK, THE TEAM IS NOW READY TO BEGIN ITS DIRECT ENGAGEMENT ON THE GROUND

PHASE I: PRE-PREPARATION

STEP 2: ENGAGE THE STAKEHOLDERS

OBJECTIVE

To engage the recyclers in a meaningful dialogue to jointly develop the Plan / To determine the methodology and timetable for this consultation process.

CONTEXT

In Step 0 it was determined that a Plan was necessary, the basic work to be undertaken was defined and a Team formed to prepare it. In Step 1, The Team began its initial desk activities. In Step 2, the Team initiates the sustained engagement with the recyclers and other key stakeholders.

ACTORS

The Plan Preparation Team is responsible for developing and leading the Consultation Process, with oversight from the Implementing Agency and Donor Agency (if applicable), and in consultation with the eligible recyclers.

I. PRE-PREPARATION	STEP 0	»	Identify the Need for a Plan
II. PREPARATION	STEP 1	»	Define the Goals and Scope of the Plan
	STEP 2	**»**	Engage the Stakeholders
	STEP 3	»	Collect Data
	STEP 4	»	Develop Inclusion Options
	STEP 5	»	Write and Submit the Plan for Approval
III. IMPLEMENTATION	STEP 6	»	Implement, Monitor, and Follow Up on the Plan

TASKS

1. Define the Consultation Strategy
2. Define the Eligibility Criteria
3. Set the Cut-off Date
4. Disseminate Basic Project Information

These Tasks do not necessarily have to be undertaken in the presented order. It is advised, however, that they be done before engaging the recyclers and other key stakeholders on the ground, as they involve the definition of how the Team will conduct that engagement. Task 2.1 Define the Consultation Strategy could be started in parallel to Step 1, but all Tasks of Steps 1 and 2 should be finalized before proceeding to Step 3.

RESULTS

* Consultation Process designed
* Eligibility Criteria and Cut-off Date defined
* Basic Project information disseminated

TEXT BOX 5: GOALS OF CONSULTATION

* To inform eligible recyclers and other affected persons on the characteristics of the Project, its phases, timing, key actors, methodologies, and results of all actions carried out

* To explain expected Project benefits and their equitable sharing and to address any concerns they may have

* To introduce the Plan Preparation Team

* To establish effective and timely channels of communication to respond to their concerns in a clear, accessible, and timely manner

* To minimize the interference of any external agents with economic or political agendas

* To develop, together with them, the means and procedures of their participation

* To ensure that particularly excluded or vulnerable groups (e.g., women, ethnic minorities, the sick or elderly, etc...) are included in the process and benefit equally from any actions taken

TASK 2.1 DEFINE THE CONSULTATION STRATEGY

The active and informed participation of all key stakeholders (and particularly of the relevant recycler group) is critical to the development of ownership and thus, to viable and sustainable results. Developing a clear stakeholder engagement process, or Consultation Strategy, allows the rules of engagement, structure, time frame, and documentation of the process to be clearly established in advance.

Because it affects so many aspects of planning and implementation, participation is best understood not as a separate step but rather as a transversal and ongoing process that can be distinctly applied in multiple situations for multiple purposes. It should be an ongoing aspect of the entire process, with recyclers continuously involved in all stages, from design through implementation. It should also be meaningful; i.e., a real input to Plan preparation and implementation. Recyclers should be provided adequate and timely information on the Plan, its timeline, and the roles, responsibilities and rights of the various stakeholders. Where possible, the development of the Consultation Strategy should itself be a consultative process, as it is preferable to have the recyclers' knowledge, approval and active involvement from the outset. It is also important to have a clearly defined mechanism for subsequently modifying the process if necessary.

The Consultation Strategy should describe the methodological approaches for:

* Identifying the key stakeholders
* Engaging the recyclers and other key stakeholders
* Determining how basic project information will be disseminated
* Conducting the Census and Baseline Socioeconomic Survey
* Determining the key issues and priorities
* Identifying, assessing, and prioritizing options
* Recording and addressing any grievance or conflict

Feedback mechanisms should be built into the process to ensure that those consulted are aware of: (1) the key suggestions made; (2) which of these were incorporated and how; and (3) which were not incorporated and why.

Key Challenges in Consultation

Informal recyclers are often used to being treated as second-class citizens and may expect similar treatment from the Team developing the Plan. It may thus be necessary to actively address negative preconceptions (which are often founded on previous experience). Simply taking recyclers' concerns and proposals seriously and treating them with respect (e.g., by spending time with them in their own space, eating with them, working with them, etc.) is critical to establishing a relationship of trust and mutual respect to produce good results. As outsiders may be viewed with suspicion, it is often advisable to involve in the consultation process outside organizations that are already working at the site and have the recyclers' trust.

Some key challenges the Team may face in the consultation process include:

* Managing expectations
* Managing doubts and suspicions
* Resistance to changes in existing activities
* Fatigue or disaffection with the consultation process
* Elite capture
* Oppressive local power structures that inhibit free and open participation
* Political and social tensions with local authorities

These challenges are discussed in more detail in ANNEX 6.

Documenting Consultation

All consultations and other participatory actions should be systematically documented to ensure completeness and consistency. A common error is for teams to do good consultations but fail to adequately document them. Good documentation can:

* Provide all actors (including government, donors, CSOs, and the persons consulted) with accurate and adequately detailed information on the process, actors and issues
* Establish a clear record of the work done by the Team
* Provide inputs to monitoring
* Provide a clear ongoing record of the process that can be referred to in any cases of conflict

TEXT BOX 6: WHAT DO WASTE PICKERS WANT?

Although no one can state with certainty what informal recyclers "want," the following concerns frequently arise in consultations, surveys, and informal conversations with recyclers:

* To maintain or improve their current access to recyclables
* To maintain or improve their current levels of income
* To continue working in the waste/recycling sector
* To improve their working conditions
* To avoid new costs (such as transportation to a new site)
* To maintain their existing business model (i.e., self-employment, flexible hours, remuneration via the sale of materials rather than fixed wages, working near home, etc.)
* To find markets for materials that are plentiful in the waste stream but as yet unmarketable (e.g., laminates or glass)
* To receive greater social recognition, respect and rights as professionals

Documentation of consultation events should at minimum include:

* Minutes
* Attendance records
* Photos
* Signed agreements
* Sound recordings or video (where possible)

A sample Consultation Form is included in ANNEX 7.

TEXT BOX 7: RESPONSIBILITIES OF A GRIEVANCE OFFICER

* Recording all complaints and maintaining them in a secure location
* Maintaining a careful log of all walk-ins and appointments (including name, date, nature of the grievance, and proposed measures)
* Addressing all grievances directly where necessary and possible
* Maintaining complainants informed of all follow up actions in a timely and appropriate manner
* Including all of the above information (along with steps taken in follow up and final outcomes) in regular reporting and duly analyzing them to facilitate identification of any key issues and/or trends

Grievance Mechanism

An important stakeholder engagement tool is a formal and clearly defined system by which affected persons may lodge complaints regarding any aspect of the Plan or Project or present any disputes for mediation. Such a system is generally called a "Grievance Mechanism." It is advisable to establish such a mechanism as early as possible on the process. Although there is no substitute for close and regular contact with the recyclers, and designated field staff interacting regularly with the recyclers can often help to resolve grievances and conflicts informally, there are certain advantages to a formalized and documented process, including greater transparency, accountability, and the potential to identify broader trends.

The Grievance Mechanism should be initiated as early as possible in the process, preferably on completion of the Census (Task 3.1). It should be easily understandable and accessible, and should be designed and implemented so as to ensure that all complaints are duly registered and given a timely response. It should normally be multi-leveled to allow unresolved complaints to be reviewed by higher-level bodies as necessary (where no solution satisfactory to all parties is reached, the case should ultimately be referred to the local courts). It should include the stationing of a clearly identified Grievance Officer (someone from the Team, relevant municipal authority or other entity charged with leading the stakeholder engagement process) during pre-established office hours at a location easily accessible to the recyclers. It should include a clear timetable for addressing complaints, with pre-established deadlines for each step in the process (see text box 7). Information on access to and functioning of the Grievance Mechanism should be broadly and clearly disseminated among the recyclers and other key stakeholders.

Responsibility for implementing and maintaining the Grievance Mechanism should lie with the entity working most directly with the recyclers, and may be introduced as an extension or reinforcement of existing arrangements or activities.

A model Grievance Form, to be completed and filed for each complaint formally received, is included in ANNEX 8.

GRIEVANCE MECHANISM
GEORGETOWN GUYANA

When the Grievance Mechanism was introduced in Georgetown Guyana, it was used by two recyclers who had been denied temporary access to the site of his horse-drawn cart, with the result that the cart was allowed to enter the site temporarily for the loading of materials.

The elected committee of recyclers also used use the mechanism to register their dissatisfaction with certain operational aspects of the the landfill.

TASK 2.2 DEFINE THE ELIGIBILITY CRITERIA

Clear eligibility criteria should be developed as early as possible to define who is and who is not eligible for inclusion under the Plan. The criteria may be quite simple (e.g., all persons found to be performing materials recovery at or adjacent to the site during a given period), or the situation may demand the development of differentiated sets of criteria for specific categories of actors (recyclers, intermediaries, food vendors, service providers…). While it may be possible to involve the recyclers themselves in the definition of eligibility criteria, this may be impracticable. The Census often helps to elucidate the logical eligibility criteria for the particular case.

It is also critical to have mechanisms in place for the subsequent addition of eligible persons or removal of non-eligible persons from the list, where this may prove necessary. Criteria for late additions could include the presentation of specified documents, a community mapping process involving verification by multiple sources or the involvement of a local committee with sufficient legitimacy among the recyclers and other actors.

Criterion	Description	Decision	Comments
Time dependent	How long has the person been working at the site?	Exclude persons who began working at the site after cut-off date (Task 2.3)	Allow recyclers to participate in definition of cut-off date? (Task 2.3)
Space dependent	Where are the persons working?	Include only those working within site boundaries or at tipping face, or those who work off site as well?	Map the landfill and surroundings to identify recyclers' working location(s)
Income dependent	Persons may work at site full- or part-time, as a primary or secondary income source, year-round, seasonally, or occasionally	Include all recyclers, or only those totally or primarily affected?	Map work patterns of those working at the site to determine categories
Alternative dependent	Persons may recover as a primary or secondary income source and/or have other job skills and/or opportunities	Include all recyclers, or only those totally or primarily affected?	Map work patterns of those working at the site to determine categories

TASK 2.3 SET THE CUT-OFF DATE

A "Cut-off Date" is an official deadline for determining who is eligible for inclusion in the Plan. Normally, it corresponds to the completion of the Census. Anyone not registered before this date risks being non-eligible for any benefits. The establishment of this date is critical to avoiding confusion over eligibility, as newcomers may attempt to enter the list in search of potential benefits and conversely, legitimately eligible persons may find themselves unfairly excluded.

THE CUT-OFF DATE SHOULD BE MADE PUBLIC AND DISSEMINATED TO ALL KEY STAKEHOLDERS

It is generally advisable that the Cut-off Date be set as early as possible in the process. A Cut-Off Date set too early, however, may result in a list that is already outdated by the time the Project begins. The exact timing should therefore be defined according to the specific local circumstances and needs. As discussed, it may be necessary to establish a mechanism for resolving outstanding disputes or claims regarding eligibility that may arise after the Cut-off Date.

TASK 2.4 DISSEMINATE BASIC PROJECT INFORMATION

Before undertaking any initial actions, such as the Census, it is important to first disseminate basic information on the Project to the recyclers and any other affected persons, including a summary description of the Project, eligibility criteria and Cut-off Date, so that they may have clear prior information before starting the formal consultation process. This may be done through one or a combination of the following:

* The distribution of written information via leaflets, in an appropriate language
* Its posting (again in an appropriate language), in at sites frequented by recyclers and other affected persons
* Its verbal presentation and discussion in a well-disseminated and accessible general assembly (often necessary where not all are literate)

While it is recommended to engage in all three of these approaches simultaneously, the generally assembly is the most important. Such an initial event is a good way of establishing clarity, transparency and ongoing dialogue in the process at the beginning. It is recommended that such an assembly be either held immediately prior to or following the Census. In cases where risks of abuse and rent seeking are particularly high, it may be possible to advertize and conduct the initial assembly, use it as a platform for announcing and explaining the Census, and begin the Census immediately upon completion of the assembly.

THE KEY OUTPUTS OF STEP 2 ARE:

* A Consultation Strategy
* Eligibility Criteria and a Cut-off Date
* Dissemination of basic Project information
* An initial public consultation event

ENGAGEMENT ON THE GROUND HAS NOW BEGUN AND THE TEAM IS NOW READY TO BEGIN ACTUAL PREPARATION OF THE PLAN, STARTING WITH THE CENSUS

PHASE I: PRE-PREPARATION

STEP 3: COLLECT DATA

OBJECTIVE

To obtain the necessary data to develop viable options for informal recyclers.

CONTEXT

The gathering of initial information on the recyclers and their context began in Step 0 and continued in Step 1 with the Desk Review and in Step 2 with the Consultation Process. Initial contacts on the ground also may have provided some tentative information on key issues. Step 3 focuses on systematic data collection activities such as the Census. The tasks included in this step will provide key inputs to the development of livelihoods options for the recyclers as well as baselines for monitoring.

ACTORS

The Plan Preparation Team is usually responsible for data collection and analysis, under the supervision of the Implementing Agency and any Donor Agency. Whenever necessary, external specialists may also be hired for specific assignments. The recyclers should be informed and consulted on the data gathering before, during and after the process, and all results formally presented to them.

I. PRE-PREPARATION	STEP 0	»	Identify the Need for a Plan
II. PREPARATION	STEP 1	»	Define the Goals and Scope of the Plan
	STEP 2	»	Engage the Stakeholders
	STEP 3	»	Collect Data
	STEP 4	»	Develop Inclusion Options
	STEP 5	»	Write and Submit the Plan for Approval
III. IMPLEMENTATION	STEP 6	»	Implement, Monitor, and Follow Up on the Plan

TASKS

1. Define the Consultation Strategy
2. Define the Eligibility Criteria
3. Set the Cut-off Date
4. Disseminate Basic Project Information

RESULTS

* Census completed
* Baseline Socioeconomic Survey completed
* Stakeholder Analysis completed
* Contextual analyses completed
* Analysis of Consultation data completed and key issues identified

In order to be able to develop viable options for improving or replacing the recyclers' existing work, it is useful to have three key data streams: (1) demographic and socioeconomic data on the recycler population; (2) data on the recyclers' aspirations, concerns and preferences, as recorded in the consultation process (begun in Step 2); and (3) relevant contextual data, including stakeholder and market analyses. Stakeholder Analysis, while technically part of the second data stream, is also an important input to the development of institutional arrangements, and for this reason is treated here as a separate Task. The sequence of Tasks 3.1 – 3.4 can vary, but it is advised that they all be completed before a full analysis is conducted and key issues identified. These Tasks are furthermore closely related to the development of options in Step 4 and a certain level of overlap in the timing of these two steps is also possible. All of the Tasks in Steps 3 and 4 must be completed, however, before the Plan can be approved.

TASK 3.1 CONDUCT THE CENSUS

Initial Screening (Step 0) determined that there were recyclers at the site who may be affected by the Project. It also provided and estimated size of the affected group, and made a general determination as to the nature and extent of potential impacts on them. It is now necessary to precisely define who the eligible persons are and for whom the Plan will be designed. The development of an accurate list of all persons working at or otherwise dependent on the site is the purpose of the Census. Specifically, the Census should seek to identify all persons who:

* Inhabit the site, whether formally or informally (if any)
* Own, occupy or use land, structures or assets at the site, formally or informally
* Are engaged in materials recovery or related activities at the site
* Practice agriculture, livestock raising, commerce or other economic or subsistence activity at the site
* Use the site to access natural resources, sustenance or sources of income
* Are based off site but are impacted by changes in materials flows or income at the site (e.g., recyclers' families, junk shop owners, secondary service providers…)
* Belong to particularly vulnerable groups (women, children, elders, the disabled…)

The Census will be the basic reference for determining eligibility for benefits offered under the Plan. To the extent possible, it should also seek to answer basic questions regarding the recyclers and their situation. While may be preferable to conduct the Census together with the broader Baseline Socioeconomic Survey, the two activities are distinct and there are situations in which it may be necessary to separate them. Where the two are conducted separately, it is the Census that should be done first, while the broader Baseline Socioeconomic Survey may be done later (see ANNEX 9 and ANNEX 10).

While it may be possible to publicly advertize the Census, and even have people report for it at a specific time and place, the surest way to identify potentially eligible recyclers is to find them working at a site at random unannounced times. In cases in which the Census has already been conducted by recycler leaders or site authorities before the Team has been hired, it is advisable to verify and revise it as necessary.

The length of time required will vary according to the size of the recycler population, the nature of their work (full-time, part-time, occasional or seasonal), their level of organization and solidarity, and the risk of abuse and rent seeking. Sometimes a Census can be conducted in a few days; sometimes several weeks are necessary. A balance should be struck between the need to quickly execute the Census, to avoid abuse and rent seeking, and the need to ensure the complete recording of all legitimately eligible persons. Multiple site visits, conducted at different times of day and days of the week, may be necessary. The methodology should account for seasonal, part-time and other variations in the recycler population. The difference between "casual" recovery (e.g., by teenagers for pocket money or by the newly or occasionally unemployed) and "livelihood" or "professional" recovery can vary widely and may not be readily perceptible to outsiders. Interviews with recyclers and other key actors (such as intermediaries) can sometimes be helpful in elucidating such distinctions. While in some cases, the

CONDUCTING A CENSUS IN GEORGETOWN, GUYANA

In Georgetown, Guyana, implementation of the Inclusion Plan involved confirmation and updating of the Census list. Various errors were found and corrected (e.g., doubled names due to nicknames and alternate spellings, persons who had moved away or died, etc.). Any persons on the list who had not appeared at the new site were sought out, informed of their rights under the Plan, and interviewed as to why they had not come to the new landfill. Only one person (an older woman) was found who claimed not to have been informed about the new site. She came to the site and registered, but did not return to work there. Other people who had either worked at the former site before the initial Census or who were entirely new were allowed access to the site, based on a general consensus of the recyclers and the staff. Such flexibility is not always possible, where demand for positions at a site is high and/or relations between the recyclers and site staff are tense or mistrustful, but in this case ongoing modifications to the original Census occurred without conflict.

Census may be conducted entirely at the site, other stakeholders – such as site workers, any NGO personnel, students or social workers involved at the site, first-level junk shop owners (on the access road or site perimeter and in the city center – can be an important source of complementary data, triangulation and source checking.

When conducting the Census, each individual should be surveyed separately where possible. Minors (usually under 12 years old) may be surveyed directly, their parents answer for them surveyed, or both may be surveyed separately or together, depending on the particular circumstances.

The Census will result in a list of eligible persons, which should then be:

* Shared with and validated by local recycler and community organizations
* Made available at accessible locations for review for a reasonable period of time (at least 15 days), to allow any claimants to report errors, inconsistencies or omissions
* Communicated individually to each eligible person

A declaration of Public Utility (DPU) or other public announcement, including the list of eligible persons and their identification numbers, should be made in the local official gazette or municipal registry.

TASK 3.2 CONDUCT THE BASELINE SOCIOECONOMIC SURVEY

The purpose of the Baseline Socioeconomic Survey is to collect the necessary data on the target recycler group to inform the design of upgrading options. The Survey is best conducted either together with or shortly following the Census (if separated, it is the Census that should be completed first). Conducting the two together allows for the consolidation of tasks, reducing time, costs, logistics, and demands on the recyclers. It may, however, also have drawbacks in cases where a complex and lengthy diagnostic process risks drawing the attention of rent seekers and opportunists that a rapid initial Census could more easily avoide.

The Baseline Socioeconomic Survey should seek to gather basic data on:

* The basic socioeconomic and cultural (family structure, gender dynamics, religious, etc.) characteristics of the recycler group
* Their current working and living situation
* Their organizational structure and arrangements
* The costs and benefits of their existing activities (income, operating costs, and the amount and types of materials they handle)
* The potential impacts of the Project on them (where applicable)
* Their existing skills sets and experience
* The existence of vulnerable groups that may require specific attention
* Their concerns, aspirations, suggestions and proposals with regard to any potential actions to change their existing situation
* The history of any previous technical or social interventions at the site and the recyclers' experiences of and attitudes towards them

BRINGING MEDICAL SERVICES TO THE SITE

In Mendoza, Argentina, government officials put together health related campaigns as a method of obtaining data from recyclers. In some cases, they offered vaccines, and in others dental services, asking recyclers to answer the Socioeconomic Survey as a condition for receiving the assistance. By creating incentives for recyclers to attend the site at a certain time and date and respond to the survey, officials were able to benefit recyclers and also to collect, in a short period of time, valuable information on them.

The Survey can be conducted by the Team or by separate specialists specifically contracted for that purpose. If part or all of it is outsourced, a clear description of the work to be done and necessary qualifications of the specialist(s) should be clearly described in a Terms of Reference.

TASK 3.3 COLLECT AND ANALYZE QUALITATIVE DATA

It is advisable to follow a multipronged methodology that combines the quantitative data gathered through the Census and Survey with qualitative data gathered through semi-structured interviews, focus groups, participant observation, participatory mapping, seasonal calendars, problem-solution analysis, etc.

As much of the data will be gathered directly from the recyclers themselves, their full and willing participation is essential to the data collection process. Direct input from the recyclers regarding their goals, concerns and proposals for future actions represents a key data stream that complements the Baseline Census and the Socionomic Survey. These data will have largely been recorded through the consultation process (Step 2), but must now be compiled, analyzed, presented, and incorporated with these other data streams, so that they may serve as

inputs to the development of options. Such an analysis (as well as the carrying out of any further data collection activities to fill any gaps identified in the existing data) is thus an important part of the data gathering process.

In complementing these data from the consultation process with other forms of qualitative data, it is advisable to seek certain flexibility and balance between the need for robust data and the schedule and budget constraints.

TASK 3.4 CONDUCT STAKEHOLDER ANALYSIS

It is important to identify early all stakeholders who are directly or indirectly involved in the local waste and recycling systems, both formal and informal, and to determine both how they may be impacted by the planned Project and how they may impact and participate in the Plan's development and implementation. This can be done via a brief exploratory mapping exercise (ANNEX 11 provides a list of techniques that can be used for conducting a Stakeholder Analysis).

Key Stakeholders

The process of preparing a Plan involves various actors, which may be broadly divided into two categories:

* Primary stakeholders (generally informal recyclers and their representative leaders and organizations)
* Secondary stakeholders (such as government officials, SWM managers, PSPs, NGOs, recyclables dealers, local communities, etc.).

Any reliance on "leaders" must take into account the existence among the recycler population of interest groups, gangs or elites (potentially linked to buyers or other powerful external actors) and carefully balanced against work with the general recycler population and any potentially excluded sub-categories.

Some of these actors may overlap (the "Implementing Agency" for example may be the Municipality, a state or federal government agency, an NGO or other actor). Local authorities can serve a catalytic and supporting role in developing a Plan. The involvement of private sector actors can yield effective results (this may be encouraged via the incorporation of recycler issues into bidding documents and contracts, the negotiation of agreements for the provision or purchase of materials, and the development of partnership and sponsorship arrangements). The first and most important partner is usually the Municipality (where it is not the lead actor developing the Plan), as it is generally responsible for the local SWM system. It is also important to consider the role of any cooperatives, associations, unions, NGOs, and other types of external support or advocacy groups that may be already working with the recyclers.

The affected (primary stakeholder) group itself may also be divisible into distinct sub-groups or categories and a high degree of internal diversity may often be found. This internal social structure should be mapped as part of the stakeholder analysis. A clear understanding of these internal distinctions, as one size is unlikely to fit all, and to the management of internal conflicts and elite capture.

The roles and responsibilities of each actor in the Plan's design and execution should be clearly defined in the Plan. Although these will vary considerably from case to case, the following figure provides an example.

Figure 6: Possible Roles of Key Stakeholders

Intermediaries

One group of stakeholders that cannot be ignored in solid waste interventions is that of intermediaries ("buyers," "junk shops" or "middlemen"). The primary economic relationship of recyclers is often with these immediate buyers; the small or mid-sized materials dealers who pay them in cash on a daily or weekly basis, while themselves waiting longer periods to accumulate, process and sell them to end users or intermediate processers.[15] Buyers are generally the main or only bridge between the cash economy of informal recovery and the formal value chain, and recyclers may not be able to survive without their pre-financing and support. Bypassing them can increase recyclers' profit margins and help them escape exploitation, but it can also disturb the existing value chain, leaving recyclers with no one willing to give them pre-finance cash purchases they may rely on for daily cash flow. Recyclers and intermediaries often form a continuum, with single families or even individuals performing both functions (in Guyana, the term "picker-buyer" is used to describe persons straddling these categories). It is thus critical to examine the role of value chain actors in the existing formal and informal systems, and the potential impacts of the Project on them, as some of the greatest impacts from any changes to existing economic relationships around a disposal site may be to this first level of the value chain.

TASK 3.5 CONDUCT CONTEXTUAL ANALYSES

Along with data on the recyclers, it is also necessary to gather good data on the broader situation in which they operate and the various factors that may affect the viability of options. These contextual data may include:

1. **Physical context.** A spatial mapping of both the disposal site and its broader surroundings to clarify local work patterns and behaviors (such as where and how different categories of recyclers operate and interact).

2. **System context.** An analysis of the existing formal municipal SWM system and the recyclers' role in it (who performs recovery, sorting, cleaning, transport, transformation and the sale of finished products, the role of intermediaries, final destinations of recyclables, etc.). Solid waste characterization studies conducted under the related Project can add another layer of useful detail (see Figure 7 for an example).

3. **Economic context.** Local and global demand for recyclables and other goods and services, market price fluctuations, transport and operating costs, and the financial viability of potential alternative activities.

4. **Legal and policy context.** Local and national laws, policies, pricing structures, and incentives that may affect recyclers, recycling activities and the production, separation and purchase of recyclables.[16]

5. **Socio-cultural context.** Key aspects of the broader socio-cultural environment that may be relevant to Plan preparation and implementation (attitudes toward recyclers, behaviors regarding waste, willingness to recycle, gender and child labor aspects, the role of class, ethnicity and rural-urban distinctions, etc.). Much of these data may already have been gathered through the Desk Review, Baseline Socioeconomic Survey, and stakeholder interviews, and may be analyzed and clarified with further data.

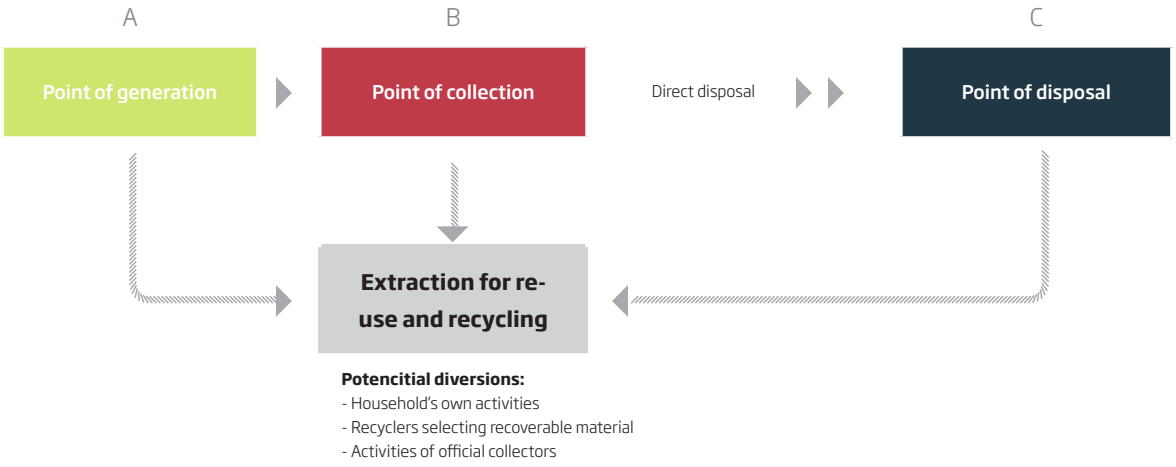
6. **Institutional context.** An assessment of the existence and accessibility of any government programs, NGOs, private businesses, recycler organizations, networks and movements or other organizations that could potentially support the recyclers in some way, as well as any potential institutional challenges and bottlenecks that might exist.

It is useful to recall that the primary relationship of recyclers is not to the physical source of their materials (e.g., the dumpsite), but rather to the materials, on the one hand, and the buyers of those materials, on the other. The relationship with the materials points toward a focus on the development of alternate forms of access to those materials "upstream" (via door-to-door collection or other schemes serving households and businesses). The relationship with the buyers suggests the need to better understand the advantages these actors offer and ways of maintaining or strengthening them. Stakeholder diagrams can be useful tools for visualizing these relationships. It is advisable to construct them together with the recyclers – and, where possible, with the buyers as well.

ANNEX 13 presents several tools for gaining insight into the functioning of the actual (i.e., formal plus informal) waste system and, particularly, those aspects that are physically outside of the final disposal site.

The Plan should include a summary of the results of all diagnostics undertaken and describe the data collection methods used, specific actions taken, and timetable, budget and funding sources spent for doing so.

Figure 7: Points in the waste stream where a characterization and generation study can be done



TASK 3.6 IDENTIFY KEY ISSUES

The general goal and specific objectives of the Plan have been defined, and relevant data on the major aspects of the recycler group and surrounding context collected and analyzed. From these data and consultation process, should emerge the key issues, constraints and opportunities facing the achievement of the Plan's goals. These may include particular aspects of the recyclers' working and living situation, the local waste and recycling chains, new potential institutional and business partners, other available markets, etc. although certain themes do recur, the key issues are in general highly context dependent and should be analyzed with fresh eyes in every particular case.

THE KEY OUTPUTS OF DATA COLLECTION ARE:

* The Census
* The Baseline Socioeconomic Survey
* The Stakeholder Analysis
* Contextual analyses
* Analysis of Consultation Data

EQUIPPED WITH THESE VARIOUS FORMS OF DATA, THE TEAM IS NOW READY TO BEGIN THE DEVELOPMENT OF OPTIONS, TOGETHER WITH THE ELIGIBLE RECYCLERS AND OTHER KEY STAKEHOLDERS, WHICH WILL COMPRISE THE CORE OF THE PLAN

PHASE I: PRE-PREPARATION

STEP 4: DEVELOP INCLUSION OPTIONS

OBJECTIVE

To develop, in close consultation with the eligible recyclers and other key actors, a set of viable and sustainable alternatives for upgrading, complementing, or replacing their current activities.

CONTEXT

Steps 1-3 involved the initial engagement with the recyclers and data collection. Step 4 focuses on the core activity of Plan preparation: the formulation of the upgrading options and/or livelihoods alternatives. This process should involve a series of discussions with the recyclers and other key stakeholders accompanied by an evaluation of each identified option to assess its technical and financial viability.

ACTORS

The identification of options should be led by the Plan Preparation Team in close consultation with the eligible recyclers and other relevant actors.

I. PRE-PREPARATION	STEP 0	»	Identify the Need for a Plan
II. PREPARATION	STEP 1	»	Define the Goals and Scope of the Plan
	STEP 2	»	Engage the Stakeholders
	STEP 3	»	Collect Data
	STEP 4	**»**	Develop Inclusion Options
	STEP 5	»	Write and Submit the Plan for Approval
III. IMPLEMENTATION	STEP 6	»	Implement, Monitor, and Follow Up on the Plan

TASKS

1. Propose Options
2. Consult Options
3. Evaluate and Select Options
4. Develop Selected Options

These Tasks are essentially chronological, although the proposal of Options may be done as part of consultation and developed in parallel with Step 3.

RESULTS

* Results
* Options proposed and consulted
* Options analyzed, selected and prioritized
* Implementation strategies for each Option developed

TASK 4.1 PROPOSE OPTIONS

Based on the three core data streams described in Step 3 (demographic and socioeconomic data; information on the recyclers' aspirations, concerns and preferences; and relevant contextual data), the Plan should propose a set of viable and sustainable Options that have been agreed upon with the recyclers and other key actors. These Options may consist of viable actions to:

* Maintain, restore or improve the recyclers' incomes and livelihoods
* Formalize their work
* Support or strengthen their institutions and organizations
* Enable or improve their access to basic services
* Maintain or strengthen their socioeconomic links to the broader community/society
* Address the specific needs of identified vulnerable or excluded groups
* Avoid, minimize or mitigate any possible negative impacts that planned activities with them may have on third party groups

CASH PAYMENT IN RIO DE JANEIRO, BRAZIL.

When the Jardim Gramacho municipal dump in Rio de Janeiro, Brazil, closed, each registered recycler was given a cash payment of about US$800, not as compensation for lost income, but as a formal recognition of their past activities and service to the City. This payment was accompanied by other actitivies as well, such as support to the opening of eight sorting facilities. Although there were issues with the administration of the cash payments by the individual recyclers, and delays in the delivery of the accompanying new liveilihoods alternatives, this action – a specific demand of the recyclers themselves – was considered by them an important victory.

Cash Compensation

When in a hurry to implement a project with minimal costs and complications, cash compensation can be an 'easy way out'. As stated in the Principles section (page x), cash compensation is not an acceptable replacement for lost income, and it has not been included among the Options described below. There are, however, specific situations in which cash compensation may be appropriate, such as:

* A replacement for income lost in the interim between closure of an old site and access to a new one
* For trainees during their training period
* For small businesses during their start-up phase
* For families of child recyclers who attend school in place of engaging in informal

TRAINING

Another common 'solution' that is at best partial is the professional training course. It is important to remember that a course is neither an income source nor a guarantee of one and thus by itself not an adequate substitute for regular income. Courses can however be an important element of broader programs that include job market insertion, technical assistance and start-up capital.

To the extent that particular individuals may require or request these and other alternate forms of compensation, they should be carefully analyzed and addressed on a case-by-case basis, according to the particular circumstances.

TASK 4.2 CONSULT OPTIONS

Informal recyclers are in the best position to understand their own needs and priorities, and even a technically sound livelihoods solution will fail if it does not have the support and ownership of those for whom it is intended. Choices can thus not be induced but rather must be made freely by each individual or family, in full knowledge of the related risks and benefits. The information gained in the Consultation and Data Collection processes on the recyclers' concerns, aspirations, needs, gaps and potentials, and their ongoing involvement in the development of alternatives, is thus essential to the determination of truly viable sets of Options. To the extent that their own suggestions can be registered, analyzed and developed, this is generally preferable to an externally induced solution.

There are also cases in which recyclers may be attracted to solutions that are known to be risky. Cash compensation, for example, may be tempting where a payout appears imminent, although insufficient compensation for lost daily income. It is the responsibility of the Team to provide the necessary information for recyclers to make informed choices.

The participatory development of the Options, which should be part of the Consultation Strategy designed in Step 2, should take the form of a series of open discussions with the recyclers, ideally involving proposals from both technical staff and the recyclers themselves, as well as parallel meetings with other key stakeholders and technical and financial analyses to determine the feasibility of the proposed Options.

Despite its risks and drawbacks, materials recovery is an activity that has value for those who practice it. When seeking to change or replace it, it is thus necessary to offer truly comparable alternatives. This requires consideration of broader factors beyond the simple measure of income; such as flexibility, proximity to residence, absence of a boss, etc., as well as technical, financial, environmental, social, and political viability and sustainability.

The Plan should also document the consultation process that led to the definition of the final Options, including the recyclers' expressed reactions and all formal agreements reached.

TASK 4.3 EVALUATE AND SELECT OPTIONS

Given the heterogeneity that is generally found within a given recycler population, a single solution is unlikely to work for all. To ensure that adequate choices are provided to all recyclers, the Plan should include several distinct and viable alternatives that each recycler may choose from, based on the data gathered in previous Steps and defined in close consultation with the recyclers. While the exact number of Options may vary depending on the specific circumstances and number of recyclers, it should generally be no less than three (3).

Options should address both the recyclers' expressed opinions and the needs of a well-functioning solid waste system. The former can be achieved through adequate consultation, while the latter requires an evaluation of the technical, social, political, environmental and financial sustainability of each Option. This analysis should include an assessment of the risks and benefits of the Options, possible alternatives, and the reasons for the choices made. Specifically, the Plan should evaluate:

* The capacity and will of the eligible recyclers (as determined through the consultation process)
* The specific opportunities and challenges of the external context
* The Project's capacity to finance, support and monitor implementation

To the extent possible, Options should be:

* Low-tech (more easily managed by the recyclers themselves)
* Low-cost (both in terms of start-up and maintenance)
* Simple (to implement, execute and maintain)
* Incremental (following a gradual, phased approach)

The definition of evaluation criteria should be a transparent process, preferably constructed together with the recyclers and at minimum clearly communicated to them.

As a general rule, the closer a recycler group stays to its existing activities and mode of work, the more likely its new activities are to be viable and sustainable. Conversely, risk tends to increase the farther a recycler group is moved from its existing activities, mode of operation, and business model. Actions involving significant changes in behavior (such as working collectively, shifting recovery from the tipping face or moving to formal employment) require the necessary time, support, and follow up. These issues should be accounted for via the development of specific mechanisms designed to address them. Some examples follow.

Trial periods. As the success of income alternatives is dependent on many factors and difficult to predict, it is preferable to allow flexibility in the case that initial choices do not deliver as planned. In a "trial period" approach, eligible recyclers can be granted a specific period of time in which to try one option (such as training and job placement or small business startups) and, if it fails to adequately restore their incomes, switch to another.

Package approaches. Options need not be mutually exclusive, but can be multiple or overlapping. A "package" approach, consisting of sets of complimentary actions to be pursued in parallel, whether by all or by different subsets of the recycler group, is sometimes preferable to a "one-for-one" solution.

Household approaches. A "household-based" approach, in which income packages are developed for entire family units rather than single individuals, may be better suited to certain local social structures.

Multiple income streams. It is advisable to seek where possible to help recyclers generate multiple income streams, for example, by complementing the income from the sale of recyclables with fees for collection and cleaning services, payments from the municipality for recognized system cost savings, money from carbon finance credit, etc.

TEXT BOX 8: LINES OF ACTION FOR RECYCLER INCLUSION AND UPGRADING

* Reducing health, safety and security risks
* Improving the effectiveness and efficiency their existing activities
* Increasing scale and volume
* Adding value (by extending command of recycling chain, from recovery to separation, cleaning, transport, transformation, commercialization)
* Expanding the range of goods and services offered
* Increasing relevant skills and knowledge
* Strengthening local institutions and organizations
* Bypassing exploitative intermediaries and other elites
* Expanding the market and broadening the client base
* Achieving formal recognition and access to related benefits
* Building strategic alliances and partnerships
* Increasing bargaining power and access and competitiveness in biddings
* Influencing public opinion and policy and building protections and incentives
* Improving the current conditions and future opportunities of the next generation

Women and vulnerable groups. Gender aspects should be given careful attention to ensure that the particular needs of women are taken into account, and specific actions designed to incorporate them. The same is true for vulnerable groups, with specific measures for these groups to be devised where necessary. Options should also take into account the needs, positions, and interests of other key stakeholders (the Municipality, end users, intermediaries, formal system contractors), so as to minimize the potential for conflict. The Preparation Team should consider the entire system context and any potential conflicts between "winners" and "losers" due to system changes.[17]

Phasing, sequencing and longer-term actions. The upgrading of recycling work is a process best done gradually, via a phased approach, moving recyclers in an incremental manner from their current situation to the one envisaged by the Plan. A general scheme for such phasing could include:

1. Upgrading operations at the tipping face, to improve safety and efficiency
2. Moving recovery away from the tipping face, to a safer specific area
3. Moving recovery and sorting off-site, to a transfer station or specific sorting facility
4. Implementing a selective collection program, with recyclers collecting and sorting materials upstream

People engage in informal materials recovery for a reason. They may be working in a depressed job market, be unemployable for some reason, or earn considerably more at a dump than they would in a formal job. Their work may be central to their social lives or to their personal identity. They may have been engaged in informal recovery for many years or even belong to multi-generational recycler families. The recyclers at a given site most inclined to change professions often tend to be newer arrivals, while veterans tend to profess a deep attachment to their work and desire to continue in the same or related activities. In developing options, it is thus advisable to prioritize:

Actions that maintain the existing sector (i.e., in the waste stream/recycling chain)

Actions that maintain their existing business model (i.e., independence, output-based remuneration and the cash flow from daily income, etc...)

At the same time, alternate job and income opportunities should also be explored, both within and outside of the formal waste system, for those who desire to pursue them.

The spatial bounding of the Plan (done in Step 1) can be useful to the development of Options, some of which occur within the site boundary and others beyond it. Text Box 9 below categorizes some typical upgrading actions according to this spatial dimension:

TEXT BOX 9: UPGRADING ACTIONS AT FINAL DISPOSAL SITES

Within the Site Boundary	Outside the Site Boundary
* (Re-)organizing recovery operations at the tipping face * Providing recyclers with Protective Personal Equipment (PPEs) and ID badges * Building a materials storage area * Upgrading the site with a view toward its closing	* Initiation of separated collection schemes * Construction of transfer stations and sorting or composting facilities * Development of operation and control mechanisms for new facilities

Types of materials

While a municipal solid waste system normally covers the entire waste stream, informal recyclers generally recover specific categories of plastics, paper, glass and /or metals. It is thus important that the types of materials to be considered under the Plan be clearly defined and agreed to with the recyclers and other relevant stakeholders. The initial focus should be on those materials already recovered by recyclers, but it also possible to expand the list to include materials not currently handled by them. It should also be determined whether the Plan will address other types of materials besides municipal household waste, such as construction or hazardous waste.

TASK 4.4 DEVELOP SELECTED OPTIONS

Each Option proposed in the Plan should be accompanied by a detailed description of:

* The activities to be undertaken
* Any specific eligibility criteria for the Option
* The financial and human resources required
* Institutional roles and responsibilities
* A timeline for implementation
* Any other documents necessary to implement the Option
* Targets and indicators for monitoring implementation progress

THE KEY OUTPUT OF STEP 4 SHOULD BE:

* A list of agreed Options
* An analysis and prioritization of the selected Options
* A detailed strategy for implementing each selected Option
* A description of the process by which the Options were defined and the reasons for their selection

THIS WORK FORMS THE CORE OF THE PLAN, WHICH MAY NOW BE CONSOLIDATED IN WRITING IN STEP 5

UPGRADING OPTIONS

TYPES OF OPTIONS FOR AN INCLUSION PLAN

This section provides an overview of the types of options that may be considered in upgrading or replacing informal recovery activities at a final disposal site. Options are divided into 7 general categories:

CATEGORY 1	SITE ACCESS, REGISTRATION AND RULES
CATEGORY 2	HEALTH, SAFETY AND LIVING CONDITIONS
CATEGORY 3	GENDER, MINORS AND VULNERABILITY
CATEGORY 4	WORKING CONDITIONS, ACCESS TO MATERIALS AND RECOVERY
CATEGORY 5	EFFICIENCY, PRODUCTIVITY AND PROFITABILITY
CATEGORY 6	ORGANIZATION, INSTITUTIONS AND CAPACITY
CATEGORY 7	POLICY, LEGAL AND INSTITUTIONAL REFORM

Neither the list nor the descriptions provided below are intended to be exhaustive, but simply to give an idea of range of actions that may be developed. Nor are they necessarily mutually exclusive, but rather can be seen as complementary, overlapping and reinforcing, to be combined in various ways depending on the particular situation.

TASKS

1. Determine the Goals of the Plan
2. Define the Scope of the Plan
3. Prepare the Work Timeline
4. Draft the Plan Outline
5. Conduct a Desk Review
6. Conduct a Legal and Policy Review
7. Define the Institutional Arrangements for Plan Preparation

These Tasks may be conducted in parallel or in alternate orders.

RESULTS

* Basic goals of the Plan defined
* Scope of the Plan determined
* Timeline for Plan preparation completed
* Basic Outline of the Plan prepared
* Desk Review completed
* Legal and Policy Review completed
* Roles and responsibilities of all key actors determined

CATEGORY 1: SITE ACCESS, REGISTRATION AND RULES

Actions involving site access, registration and rules are some of the simplest, least costly and most immediate actions to take at a solid waste final disposal site and can have a significant impact in building the ownership and involvement of the recyclers, establishing a new level of professionalism and laying the groundwork for more ambitious actions to be developed. A comprehensive list of such actions would include:

- **ID badges.** Registering recyclers by providing them photo ID badges and uniforms can help legitimize them and ensure the exclusion of children and other unauthorized persons to the site.
- **Site registry.** The maintenance of a daily register, with designated site staff responsible for recording the names of all who enter the gate on a standard form (see example in ANNEX 15), can afford further control of site entry as well as data on attendance. All measures for identifying and controlling entry to the site should be made explicit, and all cases of their enforcement duly documented. The establishment of a clear and reliable barrier to entry is a necessary precondition for the enforcement of site rules.
- **Site rules.** A set of site rules can be developed together with the recyclers and agreed upon in order to help minimize problems and improve interactions among the various actors on site. These may include prohibitions on smoking and drinking, fighting, stealing and the setting of fires, as well as mandatory use of PPEs, obedience to site authorities, etc. (see example in ANNEX 16). Violations may be punishable by temporary suspension of site access. Once established, these rules should be carefully monitored and consistently enforced. Regular reporting should include information on any violations and enforcement that may have occurred during the reporting period.

CATEGORY 2: HEALTH, SAFETY, AND LIVING CONDITIONS

Fires, toxic fumes, chemical waste, medical waste or sharp objects that may come in contact with the skin, exposure to infectious diseases, are only some of the health and safety risks that recyclers face. Actions to address these risks may begin with the distribution of appropriate work uniforms, PPEs, drinking water and disinfectants. Arrangements can also be made for medical emergencies and improved access to basic medical services, such as vaccinations, HIV testing and regular checkups. First-aid kits should be made available on site and both site staff and recyclers trained in their use. The building of dedicated basic infrastructure for recyclers on site, such as sanitary facilities and personal lockers, may also be considered. Information, training and education in health, safety, first aid, basic hygiene and family planning may further be provided to recyclers and their families.

- **Personal Protective Equipment (PPEs).** The provision of proper clothing and personal protective equipment (PPEs) to help recyclers work more safely and effectively at the tipping face is one of the easiest and most immediate actions that can be taken to improve cleanliness, safety and professional dignity in the workplace. An initial set of PPEs can be issued to each recycler at very low cost and replaced at reasonable intervals to account for normal wear and tear. Their use should be strictly enforced, with no recyclers allowed on-site without them once they are issued, and strong arrangements in place for oversight and enforcement. Lost, stolen, worn or broken items can be replaced by the recyclers themselves at their own cost, via an affordable payment scheme negotiated with them or with a partial subsidy. A list of key safety gear would include:
    - hardhats
    - reflective safety vests
    - cotton coveralls (preferably two pair, to allow for washing on alternate days)
    - gloves (waterproof and with a good grip, such as gardener's gloves)
    - long steel-toed safety boots (also waterproof)
    - goggles
    - masks (dust or surgical masks – gas masks tend to be too cumbersome)
    - raincoats or ponchos (of sufficiently strong material)
    - earplugs or earmuffs for exposure to noise (where necessary)

  It is important to note that recyclers do not always see the need for such gear, may find it a hindrance to their work, or may be tempted to sell it for quick cash. These risks need to be addressed. It is also important that the equipment be comfortable for them and easy to use, and thus that they may be able to test it before any bulk purchase is made (see ANNEX 17 for more detailed descriptions).

- **ID badges.** The distribution of site ID badges can also help strengthen the self-esteem and social legitimacy of recyclers, ensure them freedom from harassment, make them more amenable to obeying site rules, and encourage them towards further organization and professionalization.

- **Emergency Response.** Procedures should be established to address safety risks faced by recyclers at the site, such as work injuries, fires and serious health issues. A list of these procedures should be included in the Plan (see example in ANNEX 18) and all recyclers and relevant staff informed of and trained in them. A qualified first responder should be on-site or nearby on-call during working hours, and the nearest healthcare facility should also be on call in case of emergencies.

- **Medical Care.** Recyclers should be vaccinated against all infections for which they are at particular risk (tetanus, hepatitis, cholera, yellow fever, rabies, polio…) and receive regular medical examinations. These and other healthcare services may be provided via visits by mobile clinics, facilitation of visits by recyclers to nearby healthcare centers or the construction of basic healthcare facilities at or near the site.

- **Hygiene.** Recyclers can be trained in personal hygiene, sanitation and materials handling. Hand sanitizers and soaps, mandatory actions to keep the workspace clean and litter-free, trash bins with closefitting covers, plastic bags for waste, and products to protect against parasites should be made available and the recyclers trained in their use. Showers, washing and laundry facilities (discussed below) can also be provided. Drinking water should be made available on site to avoid dehydration. The application of these measures and related training, as well as the results obtained, should be budgeted for in the Plan and documented during implementation.

- **Health and hygiene training.** The providing of information, training and education in health, safety, first aid, basic hygiene and family planning can complement the provision of basic sanitation infrastructure, first aid kits and access to medical services.

- **Infrastructure.** A dedicated structure for recyclers, with electricity and running water, showers, toilets and other basic facilities (such as a laundry area), can contribute to improved hygiene, shelter from the sun and rain, and safe resting and eating conditions for recyclers, and to facilitate their organization. Lockers allow them to leave personal belongings in a safe and clean place. Simply being able to leave the site or participate in meetings, courses or workshops showered and in clean clothes is an important step to improved hygiene, quality of life, self-esteem and engagement in Plan implementation. Basic amenities, such as bath soap and detergent for washing clothes, can be provided and arrangements established for their regular replenishment. Collective arrangements for cleaning and maintenance, and clear and enforceable rules of access should also be established, and can represent an initial step towards other forms of collective organization. A collective recyclers' organization may be granted ownership of and/or responsibility for the facility. The structure can also house an office and meeting space for the organization, as well as classroom space, computers and Internet access.

- **Fire prevention.** Informal recyclers often set fires to extract valuable materials (such as copper wire). One way of addressing this issue is through the provision of wire shredder or safe incinerator to perform this task in a more efficient and safer manner.

- **Upgrading living areas.** Recyclers often live on or adjacent to the sites at which they work, and the Plan can include actions to improve their living conditions. The formalization and upgrading of their communities, along the lines of classic slum upgrading work, can be developed as part of the Plan (e.g., granting formal land title, building, repairing or upgrading basic infrastructure and improving access to basic services).

CATEGORY 3: GENDER, MINORS AND VULNERABILITY

In the development of Options, it is important to consider particularly vulnerable subgroups, such as women, minors, the elderly, sick or disabled. These groups may require additional measures to ensure that they benefit equitably from any solutions offered or that specific solutions are developed for them where necessary.

- **Women.** Special actions may be developed for women at the site, based on any particular needs or gender-related dynamics identified in the data collection and consultation processes. Women may collect different materials from men or perform different tasks, such as processing and selling materials recovered by men. They may have children who need daycare while they are working, or particular health issues.

- **Minors and children.** It is useful to make a distinction between "minors," who generally refer to adolescents below the age of 18, and "children," who are generally under 13. There are furthermore two distinct categories of children who be found at disposal sites – recycler children and children of recyclers – which require differential treatment (as the former may be working there independently while the latter may simply be accompanying their mothers and not necessary working). Children should never be present at a disposal site, and especially at the tipping face. Simply banning them from the site and sending them to school, however, is insufficient, as their

incomes may be critical to their families' survival. Such actions should further be grounded in comprehensive programs to address their situation more globally, such as compensation to their families for the lost household income and measures to ensure school attendance, monitor school performance, and address issues of health and social stigmatization.

- **Vulnerable groups.** Other categories of vulnerable persons present at a site may include elders, the sick or disabled, the mentally ill and the chemically addicted. Where such groups are identified, special actions to account for them should be developed under the Plan.

CATEGORY 4: WORKING CONDITIONS, ACCESS TO MATERIALS AND RECOVERY

Basic improvements to existing working conditions are often among the first suggestions made by recyclers themselves for ways to improve their situation. Such measures can include the upgrading of materials recovery operations, the installation of dedicated storage areas and other infrastructure, transport arrangements and other means of strengthening recyclers' existing operations.

- **Upgrading site operations.** Interventions to improve the conditions of recyclers are often part of larger projects to upgrade basic site operations and, to the extent to which these standards are not met, the recyclers are invariably affected. Failure of a site to meet recognized technical and environmental, health and safety standards can have negative effects on the recyclers' profit margins as well as on their health, safety and security. Specific measures to improve conditions at the site that directly impact recyclers should be noted – and, if possible, proposed – in the Plan.

- **Upgrading recovery.** There are several potential strategies for upgrading recovery work at or near the tipping face. The simplest involve the reorganization of access lanes and equipment operation procedures to allow for tipping, recovery and pushing by dozers in a safer and more organized structure [18]. A second level of improvement involves the establishment of dedicated areas for sorting, washing, baling and storage at a distance from the tipping face. A third level involves the equipping of these areas with roofs, conveyor belts, compacters, scales and other equipment (each to be considered on a cost-benefit basis). In choosing among such actions, it is important to consider their start-up and operation and maintenance costs, such as the need for double tipping.

- **Transfer stations and sorting facilities.** In the case that the broader system upgrading includes the construction of one of more transfer stations, it may be desirable to move recovery operations off the disposal site to such a facility or to a dedicated sorting facility. Transfer stations tend to be closer to urban centers than landfills, and thus more accessible for recyclers as well as easier to monitor. They may either be initially designed or subsequently upgraded to include sorting facilities.

- **Materials storage.** Recyclers often store their materials in makeshift piles around the tipping face, where they are exposed to the elements and at risk of theft, as well as a hindrance to clean and efficient site operation. Construction of a dedicated storage facility in an accessible location can allow recyclers to accumulate greater volumes before sale, and thus command higher prices. This space may be a covered shed, fenced outdoor area, or dedicated container. It may be managed by a recyclers' organization, with appropriate support and monitoring to avoid conflict.

TEXT BOX 10: ACTORS IN THE RECYCLING HIERARCHY

1. Individual recyclers with no organized support networks
2. Family units performing door-to-door collection or recovery
3. Organized recycler groups and Medium and Small Enterprises (MSEs)
4. On-site buyers
5. Junk shops, brokers, wholesalers and other local processors
6. Manufacturing industries and bulk exporters

• **Transportation.** Recyclers often live near or on the disposal sites at which they work and transportation costs to and from a new site may represent a major impact to them from a project. This impact can be mitigated by providing them with daily transport to and from the site. Depending on the situation, such an arrangement can take many forms, from the providing of fare reductions for public transportation to the buying or leasing of a dedicated shuttle bus to the providing of individual bicycles.

• **Integration into source separation schemes.** Involving recyclers in door-to-door recyclables collection from households, private businesses, markets or government buildings can provide them a steady and formally recognized stream of materials in improved conditions while also helping to lower system costs and extend collection service coverage (as in the case of recyclables or waste in poorer neighborhoods). Facilitating the acquisition of small inexpensive vehicles (such as motorized carts or tricycles) can help them to expand the volume and coverage of initial collection and sell materials directly without the need for intermediaries, thus increase their profit margins. This may involve the collective purchase or leasing of equipment, possibly with the aid of micro-credit schemes.

CATEGORY 5: EFFICIENCY, PRODUCTIVITY AND PROFITABILITY

The simplest ways to increase the profit margins and incomes of recyclers often involve some form of extension of their existing activities. As materials prices tend to increase along the recycling chain, recyclers can be supported in covering a wider swathe of that chain. The recycling chain generally describes a hierarchy, with recovery at the base and a series of intermediate actors between the initial recovery agents and final buyers. Text Box 10 below shows the actors that are generally involved in this hierarchy.

THE RECYCLING CHAIN

Initial recovery schemes can serve as a springboard toward more robust business models. As cooperation and organization are necessary for even the most elementary of these activities, they can help to provide incentives to further organization. Activities such as transformation, transport and composting can be added incrementally in a phased manner, given sufficient ownership and proper support. The basic steps in the recycling chain are described in Text Box 11.

Expanding the client base. Expand the range of buyers beyond the monopsony[19] or cartel markets that often accrue around a disposal site to improve profit margins, by helping recyclers find new buyers and negotiate agreements. Such an approach, however, carries certain risks and – if improperly done – can potentially hurt the buyers and/or recyclers. A good understanding of the existing recyclables chain is essential before engaging in such actions.

TEXT BOX 11: THE RECYCLING CHAIN

* **Collection** (the selection and gathering of recyclables from mixed waste for sale to the formal market chain)

* **Sorting** (adding value to recovered materials through more differentiated sorting by color, size, shape and by meeting buyer quality standards of cleanliness, etc.)

* **Increasing volume** (increased volumes, via aggregation and storage, can command higher per-unit prices and improve the bargaining power of recyclers with buyers)

* **Pre-processing** (initial value adding activities such as washing, changing, shape-cutting, granulating, compacting and baling)

* **Transformation** (the transformation of materials into articles for sale via crafts work and small manufacturing, such as aluminum pot production or plastic fork fabrication)

* **Marketing** (advertising, negotiating contracts with buyers, agreements with local government, etc.)

* **Retail** (the direct sale of transformed products to local markets)

• **Raising productivity.** The efficiency and volume of recovery can be increased through improved organization, greater division of labor, easier access to sites and materials, and access to higher-quality materials (e.g., via source separation-schemes or arrangements with bulk producers).

• **Increasing scale.** Another means of increasing profit margins is to help recyclers organize their individual activities into collective arrangements so as to achieve economies of scale. Such arrangements can help lower costs, increase productivity, strengthen bargaining power and raise sales prices.

• **Diversifying business lines.** Beyond extending their activities higher up the waste hierarchy, recyclers can be assisted in diversifying the range of goods and services they offer or in developing new business lines (such as street sweeping, industrial cleaning or composting), through training, organizational support or the offering of incentives to the end users and/or private sector businesses.

• **Bypassing intermediaries.** One of the simplest ways to increase recyclers' profit margins is to reduce or eliminate the need for intermediaries where appropriate. This can be achieved by helping them organize to sell collectively, increase volume, do their own hauling, negotiate agreements with buyers and sellers, buy equipment or vehicles, find storage spaces or take actions to defend their rights. As the role of intermediaries is highly context-dependent and may be quite symbiotic, however, the impacts on them of any system changes should be carefully assessed before designing any actions that may affect them or their relationship with the recyclers.

CATEGORY 6: ORGANIZATION, INSTITUTIONS AND CAPACITY

The organization of recyclers into cooperatives, associations and MSEs can help unite formerly isolated and vulnerable workers into collective entities capable of performing door-to-door and bulk materials collection, transport, collective bargaining and negotiation, the signing of service contracts, seeking of partnerships, accessing of grant, loan and technical assistance programs, public awareness raising, and advocacy. It is nearly always preferable to work with existing local organizations (starting with an assessment of their capacity, degree and nature of local and outside support, potential issues of patronage and elite capture, etc.). Where such entities do not exist, however, it may be possible to support the formation of such organizations, although such efforts

TEXT BOX 12: OPTIONS FOR RECYCLER ORGANIZATION

Cooperative. This involves the constitution of a formal legal entity with a name, charter, defined organizational structure, elected officers, member dues, etc. Cooperatives may be structured in various ways, and the specifics can be developed through workshops and training sessions in which recyclers are informed about, discuss, and choose from various options. A cooperative can be particularly useful where separation activities are collectivized, as in the mechanical separator/conveyor belt model. Their main drawback is that recyclers are often opposed to collective work arrangements in general, preferring their current business model as independent workers and entrepreneurs.

Selling cooperative. An alternative to the complete collectivization of the recycler's work is an arrangement allowing for the aggregation and bulk sale of collected recyclables at higher profits while maintaining the recyclers' independence in recovery. Such solutions can help recyclers access an expanded pool of buyers (as a collective has greater capacity to contact, attract, and negotiate with new buyers), and thereby increase their profit margins. It can also allow for the gradual purchase of new equipment via the collection of member dues. The risk of this option is that it requires strong organization and transparency to avoid misunderstandings and conflict, as recyclers would cede their materials to a chosen sub-group of individuals in exchange for a receipt, with each recycler paid for their part of the materials on sale. All records would have to be publicly checked to ensure transparency and credibility, with additional forms of control introduced as necessary.

Formal integration into landfill operations. This involves the hiring of recyclers by landfill operators as salaried workers or exclusive furnishers of recyclables. The recyclers either give (in the salaried model) or sell (in the monopsonic market model) their materials to the operator. While such an arrangement offers certain benefits, it also carries risks of exploitation and runs counter to the individualistic and flexible business model recyclers are often accustomed to.

Trade union. This model tends to work best where there is an emphasis on the attainment, maintenance or defense of workers' rights. Its usefulness largely depends on the national legal framework and the comparative benefits it offers.

MSE. Recyclers may also be supported in creating small businesses with non-cooperative work and payment arrangements, whether in waste and recycling or in other sectors. Such arrangements demand careful study of capacity and demand, as well as strong support and follow-up over an adequate period of time.

are challenging and cannot be imposed, but only proposed, from without. Potential actions to support and strengthen recycler organizations include:

- **Formalization.** Beyond the providing of photo ID badges and official registration at the site (discussed above), other measures can be taken to officially recognize the recyclers' work and strengthen their formalization. Such measures often correspond to the recyclers' own requests and can be relatively simple to take. They include:

- a professional training course, qualification exam, and certificate of qualification for professional recyclers

- facilitation of government recognition of materials recovery as a legal profession, thus giving recyclers access health insurance, pension plans, and other benefits

- informing recyclers on their rights, existing programs and any benefits and opportunities to which they may be entitled

- **Material support.** Donating or granting access to meeting, training and office space, equipment, facilities, etc.

- **Capacity building**. Providing training in relevant skills, such as accounting, business management, cooperativism, literacy and craftsmanship, can help recyclers increase their incomes and job prospects. While not in itself a substitute for regular work, such actions may be an important part of a larger package.

- **Supporting MSEs.** Assisting recycler organizations to function more effectively and profitably as businesses can take the form of incubation activities to improve collection rates, negotiate service contracts, improve sorting and processing to increase value, increase sales volumes and/or markets, and transform materials into finished products for commercial sale.

- **Providing incentives to businesses.** Incentives can be provided to local entrepreneurs to help them start recycling businesses, hire recyclers to perform specific tasks, sign service contracts with recycler organizations or grant recyclers exclusive access to their materials can all help stimulate private. Agreements can be signed between private sector entities and recycler organizations for the bulk collection of materials, purchase of materials collected, or support to recyclers' activities.

- **Integration into the formal SWM system.** Recycler cooperatives or MSEs can be assisted in negotiating and contracts or agreements with local municipalities and other actors to manage municipal recycling operations, provide collection services in previously uncovered areas, collect recyclables from bulk producers, or perform street sweeping or the cleaning of public facilities, the various actors involved, etc.

- **Network building.** Recycler organizations can be assisted in initiating or expanding dialogue with municipalities, communities, suppliers, buyers, NGOs, donors, federal programs and broader recycler networks. Agreements may be signed for recyclables or waste collection or concessions granted for exclusive or preferred rights to recovery. Non-member recyclers need not be excluded from such arrangements, but rather allowed to work at agreed points in the system or to sell materials to the organization at the same rate as members.

- **Social benefits and services.** Recycler organizations can be assisted in providing their mem-

bers access to healthcare, life insurance, credit, emergency assistance and legal counsel, via existing government programs or partnerships with NGOs, cooperatives, credit unions, etc.

- **Forming new institutions.** Where no well-defined or viable recycler organization exists, it may be possible to stimulate the organizational process through the providing of appropriate technical support. This may take the form of strengthening existing ad hoc committees or other local decision-making bodies to develop into more formal and permanent institutions. Such efforts to create new local institutions from without, however, are fraught with risks and demand extremely strong buy-in from the recyclers and a relationship of trust with supporting organizations and/or specialists. It is advisable that they only be undertaken based on a strong initial stakeholder analysis, a robust participatory process and the involvement of experienced and committed specialists, as well as carefully monitoring for potential conflicts, elite capture, and the influence of buyers and other interested outsiders. A good starting point for such efforts is to encourage the recyclers to form a representative committee to as an interlocutor with the Project.

- **Alternative employment**. Recyclers who wish to move into alternate income generating activities can be supported in doing so through comprehensive professional training and placement programs, and the providing of incentives to local businesses (such as cleaning or collection services or restaurants, shopping center and manufacturers enterprises) to hire qualified recyclers as service providers. Other income alternatives, both within and outside of the waste management system, can also be explored, based on the opportunities and constraints of the local context and the desires and aptitudes of the concerned recyclers.

AN EXPERIMENT IN INDUCED ORGANIZATION:

GEORGETOWN GUYANA

When the municipal open dumpsite closed in January, 2011, 86 registered informal recyclers were allowed to continue their work at the new sanitary landfill. An Inclusion Plan (called Formalization Plan) was developed to help them maintain their livelihoods in improved conditions. All were given photo ID badges and protective gear (including long boots, gloves, helmets, reflective vests and two sets of overalls for use on alternate days). A special building was built, with a furnished kitchen and dining area, lockers, showers and washrooms, electricity, and office space. A storage facility was built for the clean, safe and organized storage of recyclables. A shelter was built close to their area of work. Bicycles were distributed to facilitate their transportation. Monthly medical visits, vaccinations and other interventions were initiated.

From the earliest surveys and consultations, however, the recyclers very clearly expressed their disinterest and lack of confidence in any form of collective organization.

The landfill operator hired a dedicated Recycling Operations Manager. A set of site rules was agreed upon and enforced. A Recyclers Management Committee was elected, a collective bank account opened, and monthly dues collected, and the project created matching funds to double every dollar spent on the purchase of approved goods and services. A formal recycler'entity, GT Recyclers, is now being legally registered, and will have the power to sign concession contracts for the recovery of recyclables at the landfill and, eventually, other points in the waste system.

A screening of the award-winning documentary film, Waste Land, and a two-day workshop led by the film's star, President of the Brazilian National Movement of Recoverers of Recyclable Materials (MNCMR), Sebastiao ("Tiao") dos Santos, were held to support the recyclers in their organizational process and inspire them to move farther down the path of formalization.

CATEGORY 7: POLICY, LEGAL AND INSTITUTIONAL REFORM

- **Policy development and advocacy.** This may include actions to strengthen legal and regulatory frameworks to support recyclers, so as to ensure legal recognition of their activities and respect for their rights, support the creation of cooperatives and MSEs, and facilitate access to rights, benefits and credit.

- **Public outreach.** Public information and awareness-raising campaigns can help change negative attitudes towards recyclers, promote recycling, and encourage local communities to contract recycler organizations as service providers.

- **Outreach to law enforcement.** Information and training programs with local police can help reduce harassment of recyclers and improve their police protection.

- **Partnerships with local government**. Municipal governments can play an active role vis-à-vis recycler organizations by acting as brokers, promoting source separation, creating tax incentives for businesses that produce, use or buy recyclables, and encouraging the signing of service contracts between recycler associations and bulk waste or recyclables generators. Local governments can also sign contracts with recycler organizations themselves for services, such as street sweeping, waste collection in under-served areas, or work in local recycling programs.

- **Other Partnerships.** Many institutional actors – including NGOs, CBOs, national governments, religious organizations, and IFIs – can be involved in the supporting of informal recyclers.

APPLICATION OF THE RECYCLERS LAW IN PERU:

THE CASE OF PROGRAMA AREQUIPA RECICLA

In 2010, a national "Recycler Law" (Ley del Reciclador No. 29419), formally recognizing the activities of informal recyclers and creating incentives for municipalities to implement source separation programs that incorporated them, was approved. This national-level policy catalyzed numerous municipal initiatives throughout Peru, including the country's second-most populous city, Arequipa.

Recovery and collection of recyclables had traditionally been done at disposal sites or on streets by informal recyclers, individually or via associations, cooperatives or micro enterprises. The 2010 Programa AQP Recicla (Arequipa Municipal Recycling Program), launched in 5 of the city's neighborhoods, sought to formalize informal recyclers. 73 informal recyclers who had formerly recovered recyclables at the city's open dump organized into 3 associations, which today collect recyclable materials from 6485 households.

The Program included public awareness activities, the fostering of Public-Private Partnerships (PPPs), training and support to the new organizations and the relevant municipal authorities, access to credit, technical assistance, the purchase of equipment and machinery, and the designing of new recyclables collection routes in the City's Historical Center. A strong focus was placed on raising awareness among various city stakeholders in areas such as the benefits of recycling or the role of informal recyclers. The program also established close relationships with educational and academic institutions, private enterprise and regional authorities, and helped to strengthen the institutional capacity of the municipality to enhance the sustainability of its partnership with the formalized recyclers.

PHASE II: PREPARATION

STEP 5: WRITE AND SUBMIT THE PLAN FOR APPROVAL

OBJECTIVE

To finalize the Plan for disclosure, consultation, revision, and submission to key stakeholders and the relevant institutional authorities for review, revision, and final approval.

CONTEXT

Most of the material necessary to write the Plan has already been developed in Steps 1-4. Step 5 represents the preparation of the document itself, largely through the incorporation of those existing elements, according to the Outline developed in Step 1, along with the necessary presentations, deliberations (including consultations with the recyclers themselves), summaries, submission documents, revisions based on comments received, and production of the final draft for approval.

ACTORS

The Plan Preparation Team is usually in charge of the actual preparation of the document, with oversight from the responsible agencies and in close consultation with the eligible recyclers and the relavant institutional authorities. The approving institutions are usu-

I. PRE-PREPARATION	STEP 0	»	Identify the Need for a Plan
II. PREPARATION	STEP 1	»	Define the Goals and Scope of the Plan
	STEP 2	»	Engage the Stakeholders
	STEP 3	»	Collect Data
	STEP 4	»	Develop Inclusion Options
	STEP 5	**»**	Write and Submit the Plan for Approval
III. IMPLEMENTATION	STEP 6	»	Implement, Monitor, and Follow Up on the Plan

ally: (1) the Implementing Agency; (2) other government entities, such as the Municipality, the Ministry of Finance (if relevant(; and (3) the Donor Agency (if relevant). Each approving institution is responsible for the review and approval of, or submission of any comments on necessary changes to both the initial and final drafts.

TASKS

1. Prepare the Initial Draft
2. Review and Finalize the Initial Draft
3. Prepare Monitoring Framework
4. Disclose the Initial Draft
5. Prepare and Disseminate the Summar
6. Consult Initial the Draft
7. Make Requested Revisions
8. Identify and Follow any Required Submission Procedures
9. Submit the Final Draft for Approval

Task 5.1 (Preparation of the Initial Draft) can be started in parallel with Steps 3 and 4. Otherwise, it is advised to follow the indicated order of the Tasks.

RESULTS

* Initial draft prepared, disclosed, consulted and submitted
* Summary prepared and disseminated
* Requested revisions incorporated and document finalized
* Relevant submission procedures identified and followed
* Final draft submitted for final approval

TASK 5.1 PREPARE THE INITIAL DRAFT

Normally, an initial draft is prepared and reviewed by all key actors and a final draft then prepared based on the comments received. The final draft is then submitted for institutional approval.

The drafting of the Plan document mainly involves the consolidation of existing inputs according to the draft outline developed in Step 1 (and the updating of that Outline as necessary). If the Team has not already been incorporating the various elements into the Outline as they were prepared, they should now do so, reviewing each item in the Outline and preparing the corresponding section based on the documentation developed up to this point. The Outline is re-presented below, along with the specific Tasks in this Guide that correspond to the preparation of each item.

KEY ELEMENTS OF PLAN AND MOMENT OF THEIR PREPARATION

#	Element	Moment of Preparation
1.	Objectives	Task 1.1
2.	Scope	Task 1.2
2.	Project Description and Identified Impacts	Task 2.4
3.	Description of Recycler Population	Tasks 0.1, 2.1 and 3.1
4.	Eligibility Criteria and Cut-off Date	Tasks 2.2 and 2.3
5.	Legal and Policy Framework	Task 1.6
6.	Consultation Strategy and Results Description	Task 2.1
7.	Grievance Mechanism	Task 2.1
8.	Proposed Upgrading Options	Tasks 4.1 - 4.4
9.	Institutional Arrangements and Capacity	Tasks 1.7 and 3.3
10.	Implementation Timetable	Task 4.4
11.	Estimated Budget	Task 4.4
12.	Monitoring Framework	Task 5.3

There may be certain elements that can be only finalized at this point. These may include:

* Results of Consultations
* Results of Data Collection
* Proposals for Selected Options
* Eligibility
* Institutional Arrangements
* Implementation Timeline
* Communication and Outreach Strategy
* Estimated Budget

Results of Consultations. The Plan should include a presentation of the results of the stakeholder consultation process conducted before and during its preparation. If the process has been properly documented, this should involve a simple review and summary of the existing consultation reports up to this point. This section may also be updated if the Plan is revised at a later date.

Results of Data Collection. The Plan should contain a brief summary of the data gathered through the Census, Baseline Socioeconomic Survey, Stakeholder Analysis and contractual assessments, and of the key issues identified in Step 3. The complete results of all surveys and diagnostics should be included in an Annex.

Proposals for Selected Options. The individual proposals developed for each Option in Step 4 should be brought together in an overview and checked for coherence and consistency.

Eligibility. The eligibility criteria for each Option, decisions as to which Options will be offered exclusively or in combination, any considerations of phasing, test periods, etc., should be clearly described and the rationales behind them explained.

Institutional Arrangements. The Plan should present a clear definition of all institutional arrangements for implementation, execution of any agreements with external institutions, and consultation with all key stakeholders. These arrangements may be based on those developed for Plan preparation and adapted as necessary to the specific needs of implementation. They should be carefully developed by the Team, in close consultation with the Implementing Agency and other key stakeholders, specifying roles and responsibilities of each institutional actor involved in implementation.

Implementation Timeline. The Plan should present a detailed implementation timetable, identifying all key tasks, the actors responsible for performing them, and the deadlines for their realization. The timeline should be verified for internal overlap and external constraints and carefully coordinated with the associated Project (Plan implementation should be completed, for example, before the start of related works). Such coordination should be explicitly built into the Plan and not simply left to implementation.

Communication and Outreach Strategy. As the public may have negative perceptions of informal recyclers and little knowledge of or interest in recycling, the Plan should be carefully coordinated with a broader Communication and Outreach Strategy, which itself should be designed before Project works are initiated. The Strategy should inform the local population of the Plan's goals, the executing actors, the actions to be implemented, the process followed to develop it, anticipated schedule and technical phases, and expected results. It should build on the Consultation Strategy prepared in Step 2. The target audience should be broad and include:

* The eligible recyclers
* The site operator
* Municipal authorities
* Local residents/end users
* Other identified key stakeholders

It may be necessary to prepare distinct sub-strategies for each of these groups. As few recyclers often participate in the public sharing and discussion of information, any materials developed should be prepared in a way that is attractive and easy to follow (e.g., photos, graphic representations and clear printing and language), so as to maximize their interest in informing themselves and participating. It is advisable to include members of the eligible recycler group in its preparation.

Estimated Budget. The Plan should include a detailed budget, with estimated costs of all necessary human, physical and financial resources, the sources of financing, and agreed arrangements for procurement, financial management and accounting (see sample in ANNEX 19). A Plan without a budget is not a Plan, and it is imperative that funding sources be clearly identified in advance, so as to avoid a situation in which a well-designed Plan cannot be implemented due to lack of funds.

TASK 5.2 PREPARE THE MONITORING FRAMEWORK

This section of the Plan is large and important enough to be included as a separate task. The Monitoring Framework defines all monitoring activities to be undertaken during Plan implementation, as well as the necessary information on the indicators, roles and responsibilities, reporting requirements, timeline, and budget for Plan monitoring. It should be applied to all planned activities and include a database to record key benchmarks and facilitate timely identification of problems and adoption of mitigation measures. Specifically, it should include:

* A set of clear, relevant and easily measurable indicators
* Procedures for measuring them
* The types of data to be collected and methodology to be employed
* A strategy for follow-up and recording of progress and results, as well as any problems that may arise
* Institutional roles and responsibilities
* Implementation timetable
* Reporting arrangements
* Procedures and timeline for sharing results with key stakeholders
* Budget

Internal Monitoring and External Monitoring. Monitoring should be both internal and external. "Internal Monitoring" refers to the regular reporting by the Plan Implementation Team on its own activities, which is usually included in the broader Project Implementation Reports and measures progress against preestablished targets. "External Monitoring" refers to the supervision and oversight by an independent actor – whether a private firm, NGO, or separate government agency – on the progress and results of implementation that provides a necessary outside check on the project's own reporting. External Monitoring may be done either separately or as part of supervision of the broader Project.

Sample internal and external monitoring checklists are provided in ANNEX 20 and ANNEX 21, respectively.

Output Monitoring and Outcome Monitoring. Monitoring activities may be divided into: (1) Output Monitoring; and (2) Outcome Monitoring. Output Monitoring seeks to measure the delivery of the specific activities and products defined in the Plan; while Outcome Monitoring seeks to go beyond the specific outputs produced by the Plan to their broader effects on the recyclers' lives, situations and context. While the ultimate aim of the Plan should be on improved outcomes, these are often long-term and difficult to measure. It is thus often necessary to rely more on output indicators than outcome indicators.

Indicators. The achievement of the Plan's goals and targets should be measured via a set of clear and easily quantifiable indicators that are based on readily accessible data sources and simple to monitor. The output indicators for a Plan will vary according to the activities it defines. Some possible examples include:

1. Objectives
2. Project Description and Identified Impacts
3. Description of Recycler Population

* Number of badges and PPEs delivered/in use
* Number of workshops held/persons trained
* Number of medical checkups performed
* Number of persons vaccinated
* Number of cooperatives formed
* Number of sorting facilities built
* Number of collection vehicles/sorting tables/other equipment purchased/installed

Examples of outcome indicators include:

* Improved household income
* Health status
* Attendance and performance
* Job and life satisfaction

Progress against the chosen indicators should be measured against the timetable of actions established in the Plan (see ANNEX 19).

Ex-post Evaluation. The Monitoring Plan should include arrangements for ex-post evaluation, including both quantitative and qualitative dimensions and beneficiary satisfaction regarding both the process and results..

TASK 5.3 REVIEW AND FINALIZE THE INITIAL DRAFT

Once the various elements have been prepared and compiled according to the Outline, the Team should carefully review the document for completeness, coherence, and consistency.

TASK 5.4 PREPARE AND DISSEMINATE THE SUMMARY

Once the draft Plan is complete, a Summary should be prepared for dissemination to all key stakeholders, both in hardcopy and as a presentation. The Summary should be written in language that is easily accessible to the recyclers and other key stakeholders. It may need to be translated into the local language or presented in more than one language.

TASK 5.5 DISCLOSE THE INITIAL DRAFT

The draft Plan should be disclosed digitally, on all relevant institutional websites, and in hardcopy, at points of easy access to the eligible recyclers and any other directly affected persons. Sufficient time should be allowed for these persons to review the documents before any consultations are held. News of the draft and means of accessing should be properly disseminated among the recyclers and other key stakeholders. The disclosed draft may be subsequently revised as the Plan itself is updated or altered.

TASK 5.6 CONSULT THE INITIAL DRAFT

At least one consultation should be held with the recyclers to specifically present and discuss the Plan and to collect and incorporate critiques and suggestions they may have. Several such meetings may be necessary, as well as separate meetings with approving institutions and other key stakeholders. After initial consultation, the Team should prepare a matrix of which suggestions were incorporated and how, and which were not incorporated and why, and communicate this matrix back to the recyclers and other key stakeholders in a separate "feedback meeting."

TASK 5.7 MAKE REQUESTED REVISIONS

Once all comments have been received, the Team should revise the initial draft so that it clearly incorporates all comments, and prepare a matrix that contains all comments received and the mode of their incorporation into the final draft.

TASK 5.8 IDENTIFY AND FOLLOW REQUIRED SUBMISSION PROCEDURES

Each institution whose approval is needed for the Plan should be identified, as well as any specific institutional requirements or procedures they may have for submission. While this should normally have been done at the beginning of the process, this is a good moment to review the list of approving authorities and submission requirements to be followed, and to develop an order for sequential submission (if necessary), as well as to identify any additional steps to be taken. The Team should then prepare any accompanying documentation that may be required to submit the Plan to each specific approving institution.

TASK 5.9 SUBMIT THE FINAL DRAFT

Once the final Draft has been prepared, incorporating all necessary revisions, it is ready for submission to the authorizing institutions for final approval and, subsequently, for implementation.

THE OUTCOME OF STEP 5 IS A WRITTEN PLAN, INCLUDING ALL THE ELEMENTS CONTAINED IN THE ORIGINAL OUTLINE, WHICH HAS BEEN PUBLICLY DISCLOSED, CONSULTED WITH THE RECYCLERS AND OTHER KEY STAKEHOLDERS, REVIEWED BY ALL RELEVANT INSTITUTIONS, REVISED BASED ON THE COMMENTS RECEIVED AND RESUBMITTED TO THE INSTITUTIONS FOR FINAL APPROVAL. ONCE APPROVED, THE PLAN SHOULD NOW BE READY FOR IMPLEMENTATION.

PHASE III: IMPLEMENTATION

STEP 6: IMPLEMENT, MONITOR, AND FOLLOW UP ON THE PLAN

OBJECTIVE

To carry out the actions proposed in the Plan in ongoing, active and meaningful consultation with the eligible recyclers, and to document and assess Plan Implementation and propose modifications where necessary. The goal of these activities is to determine the Plan's success in achieving full livelihood restoration and improved working conditions for all eligible recyclers as well as to assess the process as carried out for achieving these goals (or improved incomes, conditions and sustainability where there are no related Project impacts).

CONTEXT

Steps 1-5 focused on Plan preparation. Step 6 concerns its implementation. This Step begins after official approval of the Plan has been granted by all authorizing institutions and the Plan Implementation Team (where different from the Plan Preparation Team) has been put in place.

ACTORS

It is possible that the Plan may be implemented by a different Team than the one that prepared it. Although

I. PRE-PREPARATION	STEP 0	»	Identify the Need for a Plan
II. PREPARATION	STEP 1	»	Define the Goals and Scope of the Plan
	STEP 2	»	Engage the Stakeholders
	STEP 3	»	Collect Data
	STEP 4	»	Develop Inclusion Options
	STEP 5	»	Write and Submit the Plan for Approval
III. IMPLEMENTATION	**STEP 6**	**»**	Implement, Monitor, and Follow Up on the Plan

there is much to be said for maintaining a single team on the ground throughout the process, different factors, such as hiring rules, sometimes require that the two teams be different to avoid conflicts of interest. It may also be possible that the institution responsible for implementation is not the same as that responsible for preparation. The Plan Implementation Team is usually responsible for:

1. Internal Monitoring
2. Documentation, analysis and dissemination of results
3. Providing ongoing follow up and support
4. Development of an exit strategy

These activities should be undertaken with the active involvement of eligible recyclers and oversight and support from the Implementation Agency and Donor Agency, where applicable. External monitoring, however, should be done by an independent outside actor, such as an NGO, separate government agency or private firm.

TASKS

1. Form the Plan Implementation Team
2. Form a Steering Committee
3. Execute the Actions Defined in the Plan
4. Implement the Monitoring Framework
5. Provide Ongoing Follow Up and Support
6. Develop an Exit Strategy
7. Conduct Ex-post Evaluation

The first two Tasks may be conducted in parallel, with initial ideas already having been developed in the preceding Steps, while the remaining Tasks are best executed in the proposed order.

RESULTS

* Team formed or hired to implement the Plan
* Steering Committee formed
* All activities set forth in the Plan completed
* All associated reporting submitted
* Results documented and analyzed
* Post-implementation follow up and support delivered
* Exit strategy developed and in place

TASK 6.1 FORM PLAN IMPLEMENTATION TEAM

The Institutional Capacity Assessment and Legal and Policy Review carried out in Step 1 should provide guidance for deciding which institution would be most appropriate to fulfill this function. It may be the Implementing Agency, landfill operator, the municipality, an NGO or a private consulting firm specifically contracted for this purpose.

The Plan Preparation Team should have already prepared clear Terms of Reference for the Plan Implementation Team as part of its mandate. Alternately, the Implementation Agency can do this. It is advisable, where possible, to consider retaining some or all of the specialists from the Plan Preparation Team to serve on the Plan Implementation Team, as recyclers often prefer to work with persons with whom they have already developed a relationship and trust (while some institutions may view this as a potential conflict of interest, it may be possible to bid preparation and implementation out as a single package, with a single preset budget and deadline). It is also advisable to include potential candidates for the Plan Implementation Team in consultation activities. A separate entity – whether from the Implementing Agency, Municipality, an NGO or private firm – should also be contracted to perform external monitoring.

The Implementing Agency should ensure that adequate budget is allocated for payment of the Team, as well as for the undertaking of the planned actions, whether it be from municipal budget, donor funds, or a contractual arrangement with the landfill operator.

Finally, a reporting process should be followed, based on the Monitoring Framework, with regular reports produced at established intervals (i.e., weekly, monthly, yearly).

TASK 6.2 FORM A STEERING COMMITTEE

It is advisable to establish a multi-actor or Steering Committee to accompany the implementation process. The Steering Committee should function for the full period of Plan implementation, and meet at least once every trimester. The Committee should include at least:

* The Implementing Agency
* The Municipality (if different from the Implementing Agency)
* Legitimate representatives of the eligible recyclers
* The Donor Agency (if applicable)
* The Site Operator
* Other key stakeholders, as appropriate

The main functions of a Steering Committee are:

* To review and assess Plan implementation
* To provide advice and guidance to the Plan Implementation Team
* To identify and address constraints and bottlenecks

TASK 6.3 EXECUTE THE ACTIONS DEFINED IN PLAN

The Plan Implementation Team's task is to implement the Options and any other actions defined in the Plan, in partnership with other key stakeholders, including the preparation of tender and procurement documents for any activities to be outsourced. The first step in this process is to present to and discuss with the recyclers the final approved Plan, the actions necessary for the implementation of the activities defined in it, the associated roles and responsibilities, and the expected implementation timeline. Ongoing contact should be maintained with the recyclers throughout execution and their feedback integrated into the planned activities.

TASK 6.4 IMPLEMENT THE MONITORING FRAMEWORK

The Monitoring Framework was developed in Step 5 by Project Preparation Team, but its implementation represents an integral part of the Plan Implementation Team's activities.

Internal Monitoring. Delivery of specific outputs defined in the Plan should be regularly monitored and reported by the Plan Implementation Team against the targets, milestones and timetable defined therein. Internal monitoring should seek to assess issues such as:

* Daily functioning of recovery operations
* Distribution, condition and use of uniforms, PPEs and ID badges
* Enforcement of site rules
* Availability, condition, and use of infrastructure provided
* Accessibility and effectiveness of the grievance mechanism

* Availability and condition of drinking water and food
* Regularity, quality, attendance and results of medical visits
* Regularity, quality, attendance and results of training events
* State of efforts to foment, support or strengthen recycler organizations

External Monitoring. Internal reporting should be verified/supervised by a technically qualified and neutral external actor (whether a professional firm, NGO, or independent government agency) through periodic field checks of key indicators, including site visits, interviews with various stakeholders and observation of key activities. The External Monitor should submit regular reports to the Project Management, presenting their findings and any recommendations for improvements to Plan implementation.

Outcomes of Plan implementation should be measured against the baseline conditions prior to the closing of the original site (if the Plan is based on a site closing), or to conditions prior to the start of Plan implementation (if it is not). One way of measuring outcomes to the value chain, as well as in terms of positive externalities, is through the tracking of materials by ton that are moving through the waste stream and recycling chain via a process flow and materials balance approach. This approach allows for the positive economic and environmental externalities of informal recycling – which can be weakened or strengthened by an intervention – to be reliably quantified.

External Monitoring could be undertaken by the entity responsible for external supervision of the related Project or by an NGO or other qualified entity, as appropriate.

Participation of the Recyclers. The participation of recyclers is recommended – to the extent possible – in all phases of monitoring, including the identification of indicators. If there is a representative body of recyclers, they can submit a regular report to be included in all Plan reporting. Open-ended interviews with a random sample of eligible recyclers can also help to gauge their knowledge of and concerns regarding Plan implementation, expressed level of satisfaction and any key problems. Observations of consultations with recyclers and other stakeholder engagement events may also be conducted.

The Plan Implementation Team should record the process as carefully as possible – not only for Monitoring purposes, but also with a broader view toward its subsequent analysis, write-up, and dissemination, so that future teams may learn from it.

TASK 6.5 PROVIDE POST-IMPLEMENTATION FOLLOW UP AND SUPPORT

Strong follow up and support to the recyclers once the chosen options have been delivered is critical to achieving full livelihoods restoration and making any necessary adjustments. While the nature and degree of this support and follow up will vary according to the situation, it is generally advisable to have a small team engaged for a period

of at least one (1) year after the delivery date of the Options. This team may simply be all or part of the existing Implementation Team. Its purpose is to:

1. Follow and report on the progress of the recyclers' post-delivery activities
2. Provide ongoing advice and technical support to the recyclers as necessary to ensure sustainable outcomes
3. Provide troubleshooting and problem solving in the transition to the new Options.
4. A budget source should be identified for this follow up before the close of Plan Implementation

TASK 6.6 DEVELOP AN EXIT STRATEGY

It is important during Plan execution to consider the post-implementation Phase and the sustainability of supported actions. Are the existing recycler organizations self-sufficient? If not, are there other supporting actors, such as NGOs, who can partner with them in a further phase? Are the livelihoods alternatives functioning and sustainable? If not, what actions can be taken? Is there a broader Municipal Solid Waste Strategy or related operations coming online in the near future that the recyclers can plug into? Have dependencies been created that need to be addressed? If so, how can the Project pull out in a phased or gradual manner so as to avoid unnecessary shocks? The Exit Strategy should take into account these and other issues, as determined by the specific the context.

TASK 6.7 CONDUCT EX-POST EVALUATION AND SHARING OF RESULTS

Ex-post Evaluation should be conducted at the close of activities, following the arrangements developed in the Monitoring Plan. Arrangements should also be made to share data, knowledge and lessons learned from preparation and implementation of the Plan to guide the development of future Plans.

POST-IMPLEMENTATION FOLLOW UP: HEBRON, WEST BANK-GAZA

The Southern West Bank Solid Waste Management Project, implemented by the Palestinian Authority, with support from the World Bank, has managed not only to restore the livelihoods of informal recyclers affected by the closing of the Yatta dump site but to measurably improve their lives in multiple ways. Socioeconomic and market studies and an intensive consultative process were undertaken to develop viable and sustainable livelihoods options that would: (1) allow sufficient options and flexibility for real choices to be made; (2) take into account not only the potentials and needs of individual recyclers, but also those of their families; and (3) incorporate both the recyclers' desires and concerns and an external assessment of their capacities, constraints and opportunities.

The results of this process were:

* Accommodation of all persons who chose to remain in the waste sector (via their incorporation into formal jobs at the new landfill and transfer station)

* Development of individualized, family-based livelihoods projects for the households who chose this approach (including support to livestock raising and the launching or strengthening of several small businesses (stone cutting, the manufacture and sale of clothing, blacksmith, surveyor, used furniture shop…)

* Full scholarships for the university studies of qualified students

Other actions included:

* Improvement of health and safety conditions at the existing site (distribution of boots, gloves and other clothing and protective gear, vaccinations, medical checkups, health and safety training, special measures for the seriously ill…)

* Support to the establishment of a formal workers' union, with a charter and license, as well as a rural development NGO

* Summer camps and other recreational and educational activities as an alternative to child waste picking

Strong follow up and support was provided to the waste pickers once the chosen options have been delivered to ensure full livelihoods restoration and make any necessary adjustments. An Extension Services Unit was created, via a partnership with UNDP's DEEP project and the East Jerusalem YMCA, for the duration of the Project to: (1) monitor and report on the implementation process; (2) provide ongoing advice and technical support to the beneficiaries; and (3) provide troubleshooting and problem solving in the transition to the new options.

The recyclers have strongly supported the program and reported a significant increase in self-esteem and social standing and their leader was recently elected to the local village council.

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ANNEXES

ANNEX 1:
OUTLINE OF TORS FOR PREPARATION OF AN INCLUSION PLAN

Background
This section would include a description of the background of the project (initiative) that is causing the potential impacts for the recyclers, with information on a) geographical location (of the landfill), b) brief data on presence of recyclers, c) reference to relevant solid waste management national and municipal plans and/or policies that are. Reference would be made to any safeguards that would be triggered by the project.

Descripcion of the Consultancy
This part provides general information of what the consultancy entails and the main actors with whom the consultants will interact.

Objetives of the Consultancy
This section states the objetives of the consultancy, which in most case is the preparation of an inclusion plan in consultation with the recyclers that are active on the landfill in question.

Activities
This section describes the main activities that are expected to be undertaken for the preparation of the inclusion plan, whereby attention should also be given on how the consultants are expected to interact with the stakeholders, especially the affected recyclers.

Products
This section should not only describe what is expected in the final product (the inclusion plan), but also should describe the main products that are required to come to the final product; including desk review, eligibility criteria, definition of cut-off date, consultation strategy, census, (socio-economic) survey, stakeholder analysis, contextual analysis, different (upgrading) options, monitoring and evaluation framework.

Skills and Composition of the Consultant Team

This section should provide information of the sets of skills needed to conduct the process for preparing the inclusion plan, including partipatory (planning) skills, language and cultural skills, social and communication skills, technical waste related skills amongst others. Furthermore an indication should be given of the minimum and maximum size of the team, how the skills are expected to be distributed amongst the team members, what kind of experience the team members are expected to have, what team positions should be fixed (or long term) and what positions could be fulfilled by temporary staff.

Responsabilities of the Executing Agency

This section should describe the responsabilities of the executing agency, be it the local authorithy or a donor agency. An important issue to include is the relation with the recyclers and the communication channels chosen.

Responsabilities of the Consultant

This section should indicate the main tasks for which the consultant is responsible, but also how the consultant is expected to interact with the recyclers and other stakeholders. Attention should also be given to the (neutral) role the consultant should take during the decision making process during the preparation of the inclusion plan, especially with reference to managing of potential conflicts amongst stakeholder (groups)

Time Frame

The time frame should indicate a total time needed to prepare the inclusion plan, with a specification of when the different Steps should be completed. Information should be provided on when important miles stones are expected to be completed, including completion of desk review, setting of cut-off date,definition of consultation strategy, completion of data collection and analysis, preparation of different (upgrading) options and their discussion, and finally completion of inclusion plan for approval.

Form and Schedule of Payment.

This section should clearly establish how payment will take place, whether this is directly linked to concrete products (such as those mentioned in section V) or whether payment is (partially) linked to time dedicated to the process of preparing the inclusion plan.

Reporting Arrangements.

This section should clear distinguish between the products expected to be delivered as described in section V and the reporting on the process for coming to these products. It can be important to register the process of preparing the inclusion plan, whereby lessons can be learned of difficulties encountered during the process and how they are to be dealt with.

ANNEX 2:

SAMPLE PLAN IMPLEMENTATION TIMELINE INCLUSION

		Months[2]												
N°	Activity[1]	1	2	3	4	5	6	7	8	9	10	11	12	n
1														
2														
3														
4														
5														
n														

[1] Indicate all main work activities, including submission of reports (for example, inception, progress, and final reports), and other stages such as approval by the contracting authority. For tasks in different phases, indicate separately the activities, the submission of reports and the steps of each phase.

[2] The duration of the activities should be indicated with a horizontal (or vertical) bar chart.

ANNEX 3:

SAMPLE OUTLINE OF A RECYCLER INCLUSION PLAN

INTRODUCTION

1. Objectives
2. Target Population
3. Eligibility And Cut-Off Date
4. Legal And Policy Framework
5. Results Of Stakeholder Consultations
6. Grievance Mechanism
7. Proposed Upgrading Options
8. Institutional Arrangements And Capacity
9. Implementation Timetable
10. Estimated Budget
11. Monitoring Framework

ANNEX 4:
KEY PARTICIPATORY MECHANISMS

Some of the most common participatory mechanisms that may be used in engaging informal recyclers include:

* General Assemblies
* Focus Groups
* One-on-One Meetings
* Representative Councils

General Assemblies.

These provide an important moment of public communication, particularly at the start of a particular phase or process. They allow for transparency and the broad sharing of information, as well as for elections and decisions on follow-up actions involving smaller groups of persons.

Focus Groups.

These allow particular sectors of the target population (e.g., women, local leaders, youth, religious or ethnic minorities, vulnerable persons…) to have greater freedom of expression than they might in a mixed group. Their use can help ensure that all voices are heard despite prevailing power dynamics. Targeted workshops may be held with particular categories to analyze and discuss specific options and understand key issues.

One-on-One Meetings.

These can take various forms, from targeted or random visits by Project staff to the dump or peoples' homes, to office hours during which recyclers can seek out Project staff to discuss particular issues, to scheduled interviews with selected persons. They allow for a more personal level of interaction and are critical to certain moments of the process (e.g., the defining of specific options packages for each individual.

Representative Councils.

These can take various forms. A legitimately established council of recycler representatives, preferably elected openly by assembly, can provide a greater level of practical involvement of the recycler population to complement general assemblies and focus groups, provided there are solid mechanisms for their reporting back to and consulting with the larger group. A broader council of local key stakeholders may also be formed to accompany the Plan or broader Project. This may include representatives of the recyclers, local community, businesses that generate or buy recyclables, local government officials, NGOs, CSOs or academic institutions working in the area or sector, etc. Such a council may be organized as a municipal or local Waste and Citizenship Forum (on the model used with success in Brazil), and could potentially continue to function in such a capacity even after project completion.

ANNEX 5:
EXAMPLE OF PARTICIPATORY COUNSEL

The Municipal Waste and Citizenship Forum: A Platform for Social Inclusion and Participation

In 1998, under the leadership of UNICEF, the National Waste and Citizenship Forum (FNLC) was launched in Brazil with the following objectives: eradication of child labour and adolescent in open dumps; elimination of open dumps; reclamation of degraded areas and implementation of landfills. The FNLC also promoted partnerships between local governments and organizations of (informal) recyclers in recycling programs

Waste and Citizenship Forums are participatory arrangements in which public issues related to solid waste management can be discussed and debated. The forums bring together different civil society organizations and the public and private sectors to discuss how the management of solid waste can ensure the rights of recyclers to gain a livelihood from gathering and processing of recyclables, as well as the improvement of their working conditions.

The National Forum. The size of Brazil and its regional peculiarities led to the creation of national, state and city forums where different governmental and non-governmental organizations could coordinate their actions. The National Forum, at its peak, brought together 56 institutions. In 2003, a federal inter-ministerial committee for social inclusion of waste pickers (CIISC) was created. This committee was composed of representatives of several ministries (eg Social Development, Employment, Science and Technology, Environment). The CIISC holds regular meetings with representatives of the National Movement of Recyclers. Soon after the creation of CIISC, the National Forum became less active and eventually ceased to exist. However, there are still some forums on solid waste and citizen participation in many states and cities throughout the country. Some participatory bodies on solid waste management issues have adopted principles formulated by the National Forum albeit with other abbreviations, such as the *Conselhos Municipais de Desenvolvimento Ambiental de Minas Gerais* CODEMAS.

Important gains can be attributed to social mobilization initiated by the National Forum. Among them we can include the creation of a national law legitimizing the activities of recyclers as service providers of recovering recyclable materials; support given to the process of organization of recyclers, and the development of public policies for inclusion of cooperatives in formal solid waste management systems. Many of the achievements related to the integration of waste pickers in the formal management of solid waste over the past 12 years in Brazil, as well as increased social activism of recyclers, have been attributed to the existence of a new approach started by the Waste and Citizenship Forums. This platform has legitimized the claims of recyclers to guarantee access to recyclable as a "right to the city."

ANNEX 6:
KEY CHALLENGES IN ENGAGEMENT WITH INFORMAL RECYCLERS

Managing Expectations.

One of the greatest risks in developing any social action with waste pickers is that of raising expectations that cannot be met. One must be careful not to make promises that may later prove impossible to fulfill. One is not always in a position – particularly in the early stages of preparation – to predict future changes to or limitations on a Project. It is thus important to be very clear about what is and is not known about future plans at any given time. Furthermore, even if one has the impression of having communicated carefully and responsibly the waste pickers may have their own reading of what was said. Careful documentation of all consultation events for future reference can help mitigate this last risk. Finally, rumors may spread that misinterpret or contradict with what is actually said in consultation meetings. The best way to mitigate this last risk is to keep interactions with the recyclers ongoing, open, and transparent. Unfounded rumors will often rush in to fill any space left by a free flow of information and opportunities for exchange.

Resistance to Change.

The flipside of raised expectations is potential resistance to any change in the existing situation. Informal recyclers are conscious of the benefits of their current situation, starting with income. In some countries, recyclers can earn several times the minimum wage. But their benefits extend beyond mere measure of income. Recyclers often appreciate the daily cash flow – sometimes supported by advances from intermediaries – that allows them to meet immediate needs. Flexible work hours allow them to take other income opportunities when available, care for children, etc. The freedom to work and earn more or less depending on need and availability is often appreciated, as well as the fact of having "no boss" to oversee them or fire them. Some enjoy the social aspects of the work, and others may have become attached to the dumpsite or the work itself through long years of practice.

Given these and other advantages, it is understandable that recyclers may be wary of any changes in the status quo. In order to be able to successfully communicate the potential benefits of any alternative, it is first necessary to have a good understanding of what the recyclers are losing and to be able to compare this to potential gains in a manner that is realistic for them.

Overconsultation.

Recyclers may already have prior experience of participation and be tired off or disillusioned with it. Care must be taken to avoid overconsultation, resulting in 'participation fatigue' or 'community de-mobilization'. It should never be forgotten that recyclers are professionals at their place of work. While development professionals and government officials are paid for time spent in community participation activities, recyclers are not, and their participation comes at an opportunity cost of lost revenue or other activities, such as childcare. It is important to recognize their contribution of time, both verbally and through such gestures as the providing of food and beverages at meetings.

Elite Capture.

A recycler group can represent a broad range of levels of education and power. It is helpful to have dynamic leaders who are willing to take on the responsibilities of organizing and interacting with a project. However, such a situation also carries an inherent risk of elite capture, or the control of Project interactions and benefits by a small group of "spokespeople" for the recyclers. The empowerment of local leaders should thus be both encouraged and monitored for such risks.

Local Power Structures.

Dumpsites are often centers of criminality, on various levels, and local actors may control the recyclers with threats of violence. The specific dynamics of such local power issues will depend on the location, but they must be adequately understood by the Team in order to have an effective – and safe – engagement with the recyclers.

Political and Social Tensions.

As a socially marginalized group, informal recyclers may not feel that their political leaders represent them. They may be wary of working with people from another social class (and in some cases, ethnicity). They may have prior negative experiences of interventions that have predisposed them to mistrust of government, NGOs and other external actors. Such issues should be made explicit from the beginning, carefully examined and, to the extent possible, addressed.

ANNEX 7:

SAMPLE CONSULTATION REPORTING FORM

Consultation #:
Date:
Recorded by:
Number of participants
(attach signed presence sheet):
Topic(s) discussed:
Key point(s) raised:
Proposed action(s):

ANNEX 8:
SAMPLE GRIEVANCE FORM

Grievance #:	
Date:	
Recorded by:	
Means of recording (check one):	* Phone Line * Community Information Meetings * Mail * Informal * Other (explain)
Name of complainant	
Address:	
Telephone:	
Signature:	
Nature of grievance:	
Proposed solution:	
Steps taken:	

ANNEX 9:

CENSUS DATA CHECKLIST

1. Name
2. Gender
3. Age
4. Address (lives on site or off-site)
5. Contact number
6. Marital status
7. Number of years worked at site
8. Number of hours worked per day
9. Number of days worked per week
10. Seasonality
11. Sole, main or secondary source of income
12. Materials collected
13. Quantities recovered
14. Quantities sold

ANNEX 10:
SAMPLE SOCIOECONOMIC DATA CHECKLIST

The following checklist may be used as a guide in developing a Baseline Socioeconomic Survey, to measure information collected. It can be shortened, added to or modified as the Team sees fit, depending on the context and purposes for which the collected data is intended.

1. Socio-Demographic and Cultural Data

* How many people are involved at any given time at the dumpsite, transfer stations, streets and other locations?
* Do the numbers fluctuate seasonally and why?
* What is their demographic and social profile (gender, age, ethnic affiliation, religion)?
* Do men and women play different roles in the system? (e.g., do men collect garbage while women sort, or specialize in different materials?)
* Where do the recyclers come from? Are they migrants or from the city?
* Are families involved? What are their compositions and sizes? What roles do different family members play, both in waste picking and the overall household economy?

2. Organizational Structure

* Who 'belongs' to the waste picker group?
* Is the system open or closed?
* Is there an 'in group' and an 'out group?' What are these distinctions based on?
* Are there any barriers to entry and what entry and exit points are available for newcomers? To what extent is the organization be fair and equitable regarding people who wish to participate?
* Is access to the dumpsite free or controlled? If controlled, by whom?
* Are recyclers long-term or temporary workers?
* Do they have other jobs or activities as well as waste picking?
* Are they organized? If so, how? What is their structure, membership and nature of operation?
* To whom do they sell recovered materials? What is the nature of their relationship with purchasers?
* What is their relationship with SWM managers?
* Are external organizations, such as government agencies, NGOs, or donors actively working with the group? What are their activities and what is the nature of their relationship with the recyclers and other key actors?

3. Occupational Characteristics, Income and Job Satisfaction

* What proportion of recyclers work full- or part-time? What other jobs do part-time workers do?
* How many hours per week on the average do they work at waste picking? Does this vary seasonally or according to other factors? If so, how?
* What are their average hourly earnings from waste picking and from other jobs? What proportion of the income of different demographic and social groups derives from waste picking?
* What are the current prices of recyclables on the market? What prices are they actually paid for their materials?
* What are their reasons for doing this work? What is their opinion of it? Would they prefer other activities?

4. Health, Education, and Living Conditions

* What are the risks they face on the job?
* Are recyclers susceptible to any particular occupational accidents and diseases? What are the most common illnesses and injuries? What is their prevalence?
* What healthcare resources are there? What precautions are taken to protect them (e.g. gloves, protective clothing, masks, etc.)?
* What are their levels of schooling and literacy?
* Do their children attend school? If so, until what age and grade levels?
* What is the overall status of their health? What are the most prevalent diseases? What are their main sources of exposure?
* Where do they live? Is it near their work site or do they commute?
* What are their housing and living conditions like?
* What is the state of their neighborhood? Do they have basic infrastructure (e.g., water and sanitation, health clinics, roads and schools)?
* What are their consumption patterns? What do they eat? What other goods do they consume? Do they have cell phones?

ANNEX 11:
TOPICS, TECHNIQUES AND APPROACHES FOR STAKEHOLDER ANALYSIS

Topics	Methods and Techniques	Presentation of Results
Roles and responsibilities, activities, timing	* Working group plan of action * Priority-setting and ranking exercises * Individual, semi-structured interviews * Diagramming * Field visits/observation, photos, videos * Maps * Survey of local initiatives	* Maps * Priority documents * Work plan * Timeline
Relations/alliances/ conflicts	* (Semi-structured) interviews * Diagramming * Focus group meetings * Interests and influences analysis * Transects and group mapping exercises	* Stakeholder relationship diagram * Interest and influence matrix * Minutes of focus groups * Vector diagrams * Venn diagram
Problems	* Objectives Oriented Project Planning (OOPP) * Role-playing and conflict resolution * Cartooning, caricatures, humour * Field visits, triangulation * Team-building and trust-building exercises * Time and motion analyses * Historical analysis	* Problem tree * Problem circles
Interests	* Power exercises, differences between power over, power with, power to * Diagramming * Gender analysis	* Vector diagrams
Influence on decision-making	* Small-group discussions * Workshops and seminars * Diagramming * Strengths Weaknesses Opportunities and Threats (SWOT) analysis	* Minutes, group documents * SWOT diagram

Socioeconomic differences	* Home visits * Literature review and reading of popular literature * Women's' group meetings * Role-plays * Life history exercises * School-based initiatives * Daily schedule and weekly activity analysis * Wealth ranking * Gender analysis * Mapping exercises and transects	* Personal narratives * Photo-documentation * Life histories * Art, literature, music * Daily and weekly schedules * Maps
Willingness and ability to pay	* Willingness-to-pay assessments * Analysis of payment records * Seasonal activity documentation * Gender analysis	* Pricing schemes, pricing schedules
Behaviour	* Interviews and role-plays with children * Field visits/observation * Photo- and video documentation * Surveys focusing on neighbours' behaviour	* Photos, videos * Reports
Strengths, weaknesses, opportunities and threats	* SWOT analysis	* SWOT diagram

Source: Adapted from 2004. IJgosse, Anschültz, Scheinberg; "Putting Integrated Sustainable Waste Management into Practice; Using the ISWM Assessment Methodology; ISWM Methodology as applied in the UWEP Plus Programme"; WASTE, Holland.

ANNEX 12:
CONSTRUCTING AN INFLUENCE MATRIX AND STAKEHOLDER DIAGRAM

Another way of analyzing stakeholders and assessing their potential role in an assessment and/or strategic planning process is to determine their influence on the process and their importance for the process.

Influence in this context refers to how powerful a stakeholder is. That is the power or ability to persuade or coerce others into making decisions, to control the decision-making process, to facilitate the implementation of the outcome of the assessment or strategic planning process. Assessing influence may be difficult and involves interpretation of factors such as:

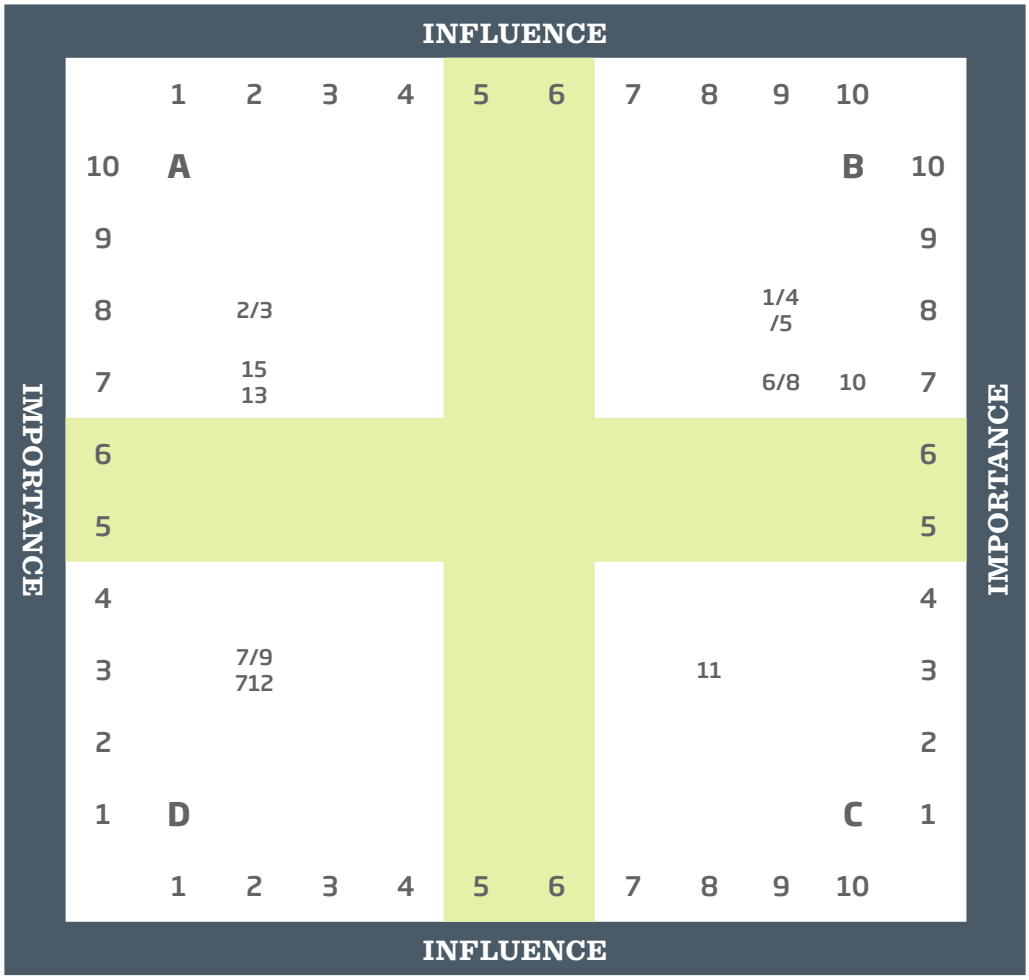
* degree of dependence on other stakeholders
* degree of organization, consensus and leadership within the stakeholder group
* authority of leadership

Importance refers to those stakeholders whose problems, needs and interests are the priority of the assessment and/or strategic planning process - if these 'important' stakeholders are not included then the assessment and/or strategic waste management plan cannot be considered a 'success'.

These two criteria can be combined using a **matrix diagram**, where by a value is given on a scale of 1 to 10. The value 1 for little influence and the value 10 for extensive influence. Similarly, the value 1 for little importance and the value 10 high importance.

The Figure below gives an example of the influence stakeholders have in Bamako, Mali and their importance for the outcome of the ISWM assessment and strategic waste management plan.

Figure: Influence and importance Matrix of Stakeholders involved in ISWM planning process in Commune VI in Bamako, Mali



Legend: Stakeholders included in influence and importance Matrix for Bamako.

1. Service Users in Served Areas
2. Waste pickers
3. Waste collection contractors (MSES/GIE) and coordination of the MSEs/GIE
4. Municipality: Mayor and Councilors
5. Municipal Manager for hygiene (Brigade d¨Hygiëne, BH)
6. Dept. of pollution control (SACPN & DRACPN)
7. Dept. of enviroment (BUPE)
8. Dept. of urbanism (DRUC)
9. Administration in charge of urban services and sanitation at district level (DSUVA/VOIRIE)
10. Police
11. CEK, ERM and WASTE
12. NGO CAFO CVI
13. Young and women Organizations
14. Comission for the attribution of service contracts
15. Vegetable gardeners/end users of compost

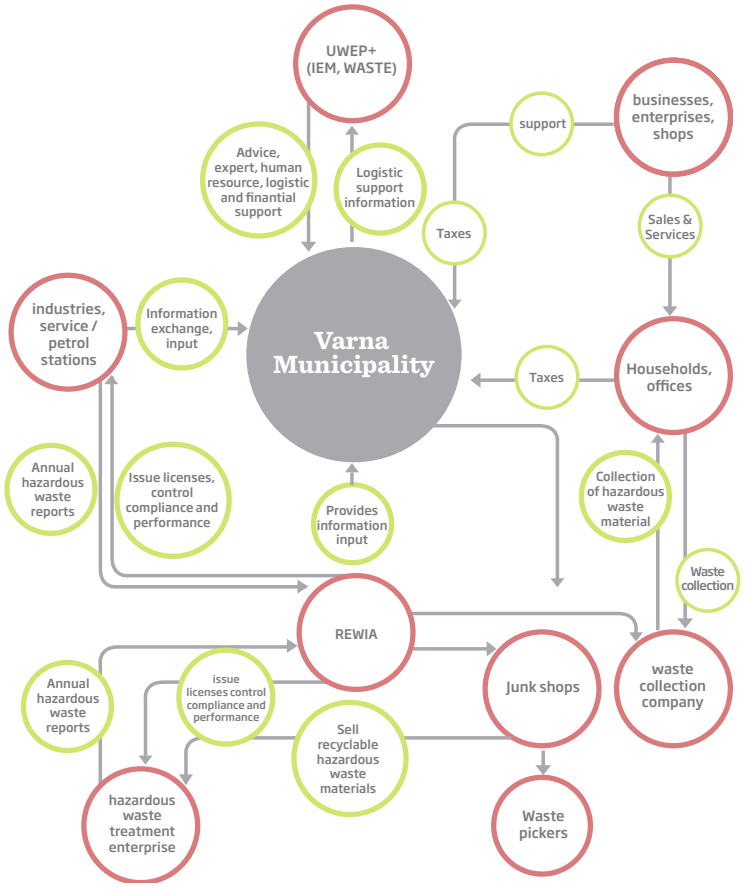
Constructing a Stakeholder Diagram

The Stakeholder Diagram represents a technique that can be used to visualize the roles of stakeholders and the relationship between them. Figure below shows information regarding the stakeholders involved in hazardous waste management in Varna, Bulgaria.

* The stakeholders: in this case a distinction is made between the key or main stakeholders and the other stakeholders
* The nature of the relationship between the stakeholders and whether this relationship is bi-lateral or only one way
* The role of the stakeholders

The diagram can be extended to include those stakeholders outside the geographical boundaries of the assessment (i.e. the national government) or to assess the relationships between all the stakeholders not only between the main or key stakeholder and the other stakeholders.

Figure: Analysis of stakeholders involved in hazardous waste management in Varna, Bulgaria using a Stakeholder Relation



ANNEX 13:

TOPICS, TECHNIQUES AND APPROACHES FOR WASTE SYSTEM ANALYSIS

Issue	Methods and Techniques	Presentation of Results
* Waste quantity * Waste composition * Density * Moisture content * Collection coverage * Uncollected waste * Performance of system * Equity of system	* Waste generation and characterization analyses * Review of reports on discharges to air, ground and water * Field visits to a range of Socioeconomic and geographic locations * Visual observation at discharge points * Volume measurement of waste discharges at (illegal) dumps and transfer points * Mapping and transects of illegal and informal disposal sites * Interviews with collection workers, street sweepers and waste collection entrepreneurs * Statistical economic data on inputs and outputs to the economy * Household surveys and interviews about backyard burial and backyard burning	* Tables, charts, statistical trends * Diagrams * Maps and routing diagrams * Photo and video-documentation
* Recycling, reuse and recovery	* Interviews with waste pickers, itinerant buyers, dealers, MSEs involved in pre-processing and recycling * Records of recycling plants and workshops * Sales records dealers * Interviews with collection workers, street sweepers and waste collection entrepreneurs * Social surveys and interviews about recovery and reuse within households and commercial establishments	* Recovery projections
* Flow of waste * Flow of materials	* Waste flow analysis * Material balances * Carbon and nitrogen balance	* Flow diagrams * Material balance diagrams

* Collection efficiency * Collection techniques * Collection rate	* Time and motion analyses * Survey of percent filling of containers * Visual analysis of discharge at disposal facility	* Results in seconds per household or per connection * Results in time per ton and time per distance
* Description of current practices in collection, transfer and disposal	* Analysis of annual reports, budgets, documents * Interviews with collection workers, street sweepers, waste collection entrepreneurs * Photos, slides, videos * Field visits/observation	* Maps * Photo and video-documentation * Descriptive text
* Resource analysis	* Fleet and equipment inventories * Lists of municipal buildings from cadastre or other source * Field visits/observation * Budgets * Financial reports of previous years	* Lists * Descriptions of unused equipment and buildings

Source: Adapted from 2004 IJgosse, Anschültz, Scheinberg; "Putting Integrated Sustainable Waste Management into Practice; Using the ISWM Assessment Methodology; ISWM Methodology as applied in the UWEP Plus Programme"; WASTE, Holland.

ANNEX 14:

SAMPLE SITE REGISTRY FORM

DATE	NAMES	MON	TUE	WED	THUR	FRI	SAT	SUN

ANNEX 15:
SAMPLE LIST OF FINAL DISPOSAL SITE RULES

- No recycler will be allowed on site without an official site ID badge.
- All recyclers must initiate a process of obtaining their national ID cards within X days of receiving their site ID badge.
- All recyclers must use their PPEs while on site.
- All recyclers must submit to mandatory medical examinations and basic vaccinations.
- No recycler may touch or interfere with an incoming vehicle or with site equipment.
- All recyclers must wait until an incoming truck has delivered its payload and the Traffic Officer/Supervisor has explicitly authorized them (by whistle or bullhorn) before touching materials.
- No cigarettes, drugs or alcohol may be consumed on or brought to the site.
- No weapons may be brought on-site.
- No fighting.
- No stealing.
- No setting of fires.
- Recyclers must obey site authorities at all times.
- Recyclers must assist landfill authorities in maintaining a clean and safe working environment at the site, and engage in cleaning and related activities, whenever requested to do so.
- Recyclers must maintain a professional attitude and treat one another, landfill staff and all other persons on the site with respect at all times.
- No children will be allowed to enter the site at any time

ANNEX 16:
TECHNICAL SPECIFICATIONS OF PERSONAL PROTECTION EQUIPMENT

2.1 Justification

The working day of the recyclers extends from 8:00 to 17:00 pm daily, year round, except Sundays. The work is done in the open, subject to the sun, rain, wind, dust, smoke, pestilence and toxic fumes. For this reason, it is necessary to provide them with adequate personal protection equipment (PPE) so as to protect them from these conditions. This document deals with the technical specifications of the equipment needed for protection during the recovering of waste materials on landfills.

2.2 Objective

To provide each recycler with equipment that protects their exposed body parts during working hours at the landfill.

2.3 Procedure

To determine the technical specifications of the PPE for recyclers on the current landfill relevant information was generated through the following activities:

- The Socioeconomic Census of the recyclers was conducted during in March-April 2013.
- Observations made by the Consultant Team in the working areas of the recyclers on the landfill, on April 30 and May 9, 2013.
- Working meetings were held with Mr. Gustavo Archer, Chief, Division of Solid Waste, Daniel Figueroa, Administrative Assistant, Division of Solid Waste, Social Worker Carolt Enriquez, and the Research Supervisor Mr. Oscar De Leon, all AMSA members. The meetings were held on the following dates: May 17 and June 3, 2013.
- Revision of the documents "Internal guidelines for the adequate development within controlled landfill (km 22), ruta al Pacifico, Villa Nueva, Guatemala" AMSA and "Preparing Informal Recycler Plans for Inclusion Solid Waste Management Projects: An Operational Guide, IDB, Washington "
- Consultations were held with commercial establishments specializing in the sale of PPE.

2.4 Components of Personal Protection Equipment for recyclers that work on landfills.

1. Cap with visor and ear muffs.
2. Hand gloves fabricated from cloth, wool on top and leather on the palm.
3. Industrial glasses.
4. Mask type scarf.
5. Gabardine Coveralls

6. Industrial type boots

7. Coat (rain protection)

Below a description of the technical specifications for each component is given:

2.4.1 Cap with visor and ear muffs.

1. All recyclers need to use (and in fact use) some kind of head cover during working hours at the landfill, not only for protection against the sun, but also against dust, and at certain times, strong winds. Some use scarves, hats and some other caps.

2. To ensure the best protection for the recyclers, the caps should have:

    - Visor: This visor is the one that protects the eyes from sunlight. Some of the covers that the recyclers are currently using as lack of this attachment.

    - Ear: that is, the cap that can give them added protection should have a flap that folds from the edge of the cap to cover the ears and neck. Most caps that the recyclers use presently lack these (ear) flaps, which is compensated by covering the ears and neck by some type of scarf.

    - During conversations with recyclers some of them expressed that these earmuffs on the side of the cap can be warm and uncomfortable, but there are some caps available that allow earmuffs to retract upward and hold them up with a little ledge. This would allow the earmuffs to be lowered during work when the wind picks up and there is a lot of dust, and to fold them upwards to refresh the ears and neck at times. If these small straps are included, then the cap with earflaps would be accepted by all recyclers.

1. There are waterproof caps, of the type described, which protect the user from rain.

2. There are different colored caps. This would allow each recycler to receive a cap with a color that corresponds to the registers and controls of AMSA.

3. The value of one of these caps is Q 35.00 per unit, according to the price quote presented in the annex.

4. Presently 123 caps are required.

2.4.2 Hand gloves fabricated from cloth, wool on top and leather on the palm.

1. The gloves are needed to protect the hands from cuts and abrasations from pieces of glass, metal, wire, cans and toxic or corrosive substances. For these reasons, most recyclers use some type of gloves. Based on observations from the field, however, it has been found that the gloves used (made from fabric or wool) do not protect the hands; and are unsuitable for the work.

2. When asked some why they use these fabric or woolen gloves, the recyclers indicate that they are very flexible, but recognize that they do not protect.

3. They also admit that in the past they used leather gloves, which are very hard, inflexible and do not allow them to work properly.

4. Thus it is necessary to provide all recyclers with a pair of appropiate gloves for the type of work done at the landfill. These gloves should have the following specifications:

    - They are made from a flexible and synthetic material.
    - They have fabric cover for added protection.
    - They are to be sold in hardware stores in the country.
    - They all have the same color.
    - The size is standard.
    - There are "hard" and "soft" (flexible).
    - On the market they cost Q 110.00 per pair, according to the quote annexed.

5. Presently 123 pairs of gloves are required, which should of the "soft" type.

2.4.3 Industrial glasses

1. The landfill is characterized by strong winds caused by the adiabatic exchange micro-climate of the Lake Amatitlan. These strong winds produce dust clouds that move at high speeds and affect the eyes of anyone who is in the landfill, whether working or just visiting.

2. For those that work every day for several hours at the landfill, their eyes are affected by dust (and sometimes smoke) if they are not protected with glasses. However, at present, only a small number of recyclers use glasses, either personal everyday glasses or goggles to protect against sunlight and dust. As such there is a high incidence of eye related infections and diseases amongst the recyclers.

3. Therefore, it is necessary to provide proper glasses to protect the eyes during working hours at the landfill. The technical specification of the glasses required are:

    - They should be industrial glasses.
    - They must be transparent.
    - The lenses should be made from plastic.
    - They should have "legs" to secure them behind the ears, or a string to tie behind the head down over the ears.
    - They should be all the same color.
    - The size is standard.

4. This type of glass is widely used in Guatemala and can be purchased at hardware stores and stores specie-cialed in industrial equipment.

5. The unit price of these glasses is Q 71.50 as indicated in the Annex.

Presently 123 glasses are required of these types of glasses for the recyclers on the landfill.

2.4.4 Mask-type scarf

1. Most recyclers currently working at the landfill have had experience of using some type of "mask" (to cover of the nose and nostrils), to protect against inhaling toxic fumes, stink, smoke or dust, which affect the entire area of the landfill and its surroundings, and they also affects those who work or travel within the landfill.

2. The recyclers feel and understand the need to protect their respiration, but even though they know of the masks, they prefer to protect themselves with a blanket, a piece of cloth or bandana.

3. They argue that the masks that have been used are made of rubber, which heat up and which in any case do not prevent the dust from entering , so prefer not to use them. These masks have a value of Q 3.00 (unit) on the market.

4. There are other masks such as La Pañoleta type Bandido that avoids discomforts of the masks that have been using till now, and that would ensure the required protection. This mask has the following features:

    - Include a filter material (a cloth activated carbon Dynamics of).
    - Is laminated between two layers of 100% cotton.
    - There is no necesity to replace the filters.
    - Are fully washable.
    - Includes clip to secure (seal) the the scarf around the nose.
    - Has a cord that allows to secure around the chin.
    - Provides protection againts smoke.
    - Has a lifetime of six to eight months.

5. The price is Q 395.00, as indicated in the Annex.

6. Currently 123 masks are needed for the recyclers on the landfill.

2.4.5 Gabardine Coveralls with Reflective Tape

1. Currently the recyclers working on the landfill use their every day clothes to sort through the waste. This means that there every day clothing becomes contaminated and that pathogens, impurities, toxic or hazardous impregnations are brought to their homes and to their families. Only a small proportion of the recyclers change their clothes when they come to the landfill and when they leave after work.

2. Therefore, to ensure greater protection to the recyclers and their family, they should be provided with appropriate work clothing suitable to the conditions of the landfill. The specifications of these clothing are as follows:

    - This is a coverall (Guatemalan term used to name a garment which is like a one-piece jump-suite with a long-sleeved shirt connected to the pants, have large bags to carry and store items, and opens and closes with a zipper at the front).
    - They should have a zipper from the neck to the pubic region.
    - They should be made of canvas or gabardine.
    - They can be purchased in the colors assigned to the recyclers in the registers of AMSA
    - They should be small and medium sized.

3. Their unit price is Q 200.00, as quoted in the annex.

4. Currently 246 overalls are required, of the appropriate colors for the groups of recyclers, two per recycler so they have a change of clothing allowing for one to be washed whilst using the other one.

2.4.6 Industrial type boots

1. The recyclers working at the landfill using a variety of footwear. Some have rubber boots, other use tennis shoes. However, the amount of scrap metal, glass, tin, and the presence of hospital waste, and toxic or hazardous chemicals, is high, as described in the reports of on waste composition. For these types of dangers, according to the experts, protection provided by the rubber boot and ordinary shoe soles or Pantanal type soles (those that do not to slip in the mud) is insufficient.

2. Thus appropriate footwear for landfill conditions are required, so that the recyclers can work in safer conditions. The required specifications for these footwear are:

    - Must be industrial shoes (which can not be punctured by hypodermic needles or nails).
    - They should be high and cover the ankle and part of the leg.
    - There should not be made of rubber, so as to avoid the danger of burning or corrosion.

3. They can be purchased in stores that sell items for industrial or agricultural work.

4. There are of suitable sizes for each person, there is also a standard type.

5. The unit price is Q 332.00 per pair.

6. Currently 123 pairs of industrial boots are required for the recyclers at the landfill.

2.4.7 Coat (rain protection)

1. There are heavy rains in the area of the landfill during the rainy season "winter" in Guatemala (from May till October), and the recyclers work in the open. Therefore it is necessary to consider their protection from the rain.

2. Parasols and umbrellas are discarded because they occupy one hand to secure and the recyclers need both hands for their work.

3. It is recommended that they should be provided with an impermeable coat with the following features:

    - A waterproof poncho, in small and medium sizes.
    - It closes with snaps.

4. On the market these kind of ponchos can be bought for Q115.00, as quoted in annex.

5. Currently 123 ponchos are required.

Table 2. Technical Specifications for Personal Protective Equipment

Type		Description	Quantity	Unit value Q.	Total Value Q.
1.	Cap with visor and ear muffs.	The top of the cap should be waterproof with retractable visor and ear muffs and attachable with velcro. Earmuffs with a flap on the sides of the caps to cover the ears and 10 cm of neck	123	35.00	4,305.00
2.	Hand gloves fabricated from cloth, wool on top and leather on the palm.	Weatherproof, made from leather combined with a soft, flexible material that allows a free movement of the fingers, covering upto one third of the forearm. Heavy duty thread, double stitching in areas of greater efforts.	123	110.00	13,530.00

Type		Description	Quantity	Unit value Q.	Total Value Q.
		Fingers covered individually, with reinforcements on the knuckles. Fiber lining for better fitting and to achieve greater comfort. Ajustable to all hand sizes and adjustable closing mecanism.			
3.	Industrial glasses.	Protective safety glasses. The goggles feature an ultra-durable lens coating, heat resistant and cushioned. With a contemporary design, uni-light lenses, offers a panoramic view. Adjustable length-Meets Mil V0 ballistic test purposes. Protection against impact force which exceeds ANSI 7x required. -Meets requirements of ANSI X87 + glasses. Meets the requirements of CSA Z49.3 glasses	123	71.50	8,794.50
4.	Mask type scarf.	Mask type scarfe. Incorporates a filter material (Activated Carbon), to be placed are around the mouth and nose. Laminated between two layers of cotton. Completely washable. Includes aluminum clamp to seal nose scarf around the face. Has draw cord to seal under the chin.	123	395.00	48,585.00
5.	Gabardine Coveralls	Gabardine or canvas overalls, long sleeve, single piece with the pants. With large bags to carry and store objects. It opens and closes with a zipper or Velcro or zipper (from the neck to the pubic region) 62 medium and 61 small.	246	200.00	49,200.00
6.	Industrial type boots	Medium sized black colored classic boot without steel toe. Height of six inches, glued and stapled construction cooked cut, color black, certified steel toe, rubber sole 100% (solid) Sizes from 5 to 13.	123	332.00	40,836.00
7.	Coat (rain protection)	Made of vinyl 0.35mm. Maximum mobility, attached hood with cord adjustment, special plastic clips, all hermetically sealed seams.	123	115.00	14,145.00

2.4.8 Summary

The complete equipment for a recycler working at the landfill in better and safer working conditions, and with per unit price as follows:

Name of the product	Unit Price (Q)	Total (Q).
1. Cap with visor and ear muffs.	35.00	4,305.00
2. Hand gloves fabricated from cloth, wool on top and leather on the palm.	110.00	13,530.00
3. Industrial glasses.	71.50	8,794.50
4. Mask type scarf	395.00	48,585.00
5. Gabardine Coveralls	400.00	49,200.00
6. Industrial type boots	332.00	40,836.00
7. Coat (rain protection)	115.00	14,145.00
Total	**550.50**	**179,395.50**

This represents an estimate of 179,395.50 Q corresponding to 123 units, except the overalls which require two units per recycler.

ANNEX 17:
SAMPLE SITE HEALTH, SAFETY AND EMERGENCY PROCEDURES

There are a numerous examples of SAMPLE SITE HEALTH, SAFETY AND EMERGENCY PROCEDURES available digitally on the Internet. These are from National or Regional Environmental Authorities as well as from Landfill Operators. In most cases, reference is made to comply with national legislation. It should be noted that national legislation frequently prohibits the presence of persons recovering materials within the landfill and especially on the tipping face. Often a specific section might be included regarding scavenging. However, for the purpose of this guide, health and safety procedures are considered important and relevant also for those circumstances where waste picking occurs.

Two examples are included in this annex, with the purpose of demonstrating the main topics to be included in such procedures.

The first example draws from Chapter 8 of the LANDFILL MANUALS: LANDFILL OPERATIONAL PRACTICES (1997), from the Environmental Protection Agency, Ireland.

The second example refers to a Contingency Plan taken from the Solid Waste Landfill Guidance Section 9 of Department of Environmental Quality of Oregon State, http://www.deq.state.or.us/lq/sw/disposal/landfillguidance.htm, which is presently used in the State of Oregon.

Example 1: Safety

Introduction

This section sets out the basic requirements of the effective control of health and safety at landfill sites. It constitutes general guidance which should be considered and enacted by all site operators. However, readers should note two important matters:

- site specific guidance relevant to an operator's own safety requirements should be available in the organisation's relevant health and safety statements and working procedures; and
- the operator of a site has an overlying legal duty to ensure that each landfill is operated in compliance with the Safety, Health and Welfare at Work Act 1989 and associated Regulations.

Accordingly, the following text should be viewed as general guidance and it should be appreciated that the fundamental requirement must be the compliance with the above documents, particularly the 1989 Act and the Regulations. All operators of landfill facilities should have read, understood and, where appropriate enacted, the requirements of the provisions mentioned above.

Landfill Hazards

Like all industrial activities, there are inherent hazards associated with the operation of a landfill. Historically accidents at landfills have in the main resulted from the temporary nature of much of the site infrastructure – eg site roads, sharp bends and steep gradients – and because vehicles and machinery are often operated in confined areas and in close proximity to each other. Reversing vehicles are a significant problem, particularly where

staff are required to cross the working area on foot or direct vehicles at the landfill face.

Accidents can be minimized by the implementation of safety and training programmes and by effective site management. These programmes should include the following

- identification of potential sources of risk;
- assessment of the degree of risk from these sources;
- determination of procedures for addressing the risks;
- development of procedures to minimise accident/risks when they occur; and
- on-going monitoring to ensure proper implementation of safe working procedures.

Safety, Health and Welfare at Work

The Safety, Health and Welfare at Work Act 1989 is composed of five principal elements. Firstly, the Act contains the over-riding duty on all employers to ensure "so far as is reasonably practicable" the safety, health and welfare of both employees and other affected persons. The criterion of "reasonably practicable" is satisfied by way of compliance with the relevant legislation and any available code of practice, as well as "good practice" within the particular industrial sector as a whole.

Second, there is a duty on all employers to compile Safety Statements, with such statements being based on the comprehensive written identification of hazards and an assessment of relevant risks. The third element is the right of employees to be consulted on safety, health and welfare issues. Fourthly, all employees are also given a duty to take reasonable care in safeguarding their own safety. Finally, the Health and Safety Authority was to be established to promote and enforce safety issues.

The Act is supplemented by way of Regulations that fill out the Act's more general provisions. The Safety, Health Welfare at Work (Construction) Regulations 1995 (SI No 138 of 1995) have particular application to landfill sites. Under the Regulations a project supervisor must be appointed for the design and development stages of all construction works. A safety and health plan will be required. The purpose of the Plan is to co-ordinate health and safety requirements that may affect all persons present on the site. As construction is an ongoing process at a landfill, the requirements of these Regulations need to be addressed throughout the life of the site. In the light of these provisions, the operator should ensure the safety, health and welfare at work of all persons employed on the landfill. This duty should include the following priorities:

- the landfill should be constructed and maintained in a safe condition;
- a safe means of access to the site for staff and vehicles should be provided;
- plant and machinery should be maintained in a safe condition;
- risks should be appraised and safe systems of work planned, organised and performed;
- suitable safety information, instruction, training and supervision should be provided;

- suitable protective clothing and equipment should be provided and maintained;
- emergency plans should be prepared and revised as necessary;
- that the presence of any article or substance on the site must not present unacceptable risks to health; and
- adequate welfare facilities for staff must be provided and maintained.

A key requirement of the 1989 Act is preparation of the safety statement by all employers. This statement is fundamental in ensuring the safety, health and welfare at work of employees in the workplace. The safety statement should be based on an identification of the hazards at each landfill and an assessment of the risks posed by those hazards.

It is a statutory requirement that the safety statement is up-dated in the light of changing circumstances at the site, any new legal requirement and good practice within the industry. Risks to employees and others should be periodically re-assessed. Accordingly, the statement should be seen as an evolving, rather than static, document. The Health and Safety Authority published a revised version of their Guidelines on Safety Statements in 1993. All employees should have read the safety statement, with managers and supervisors being fully aware of the statement's implications.

Personnel

One or more persons within any organisation must be formally designated in the Safety Statement with the responsibility for safety and for the implementation of the Act and Regulations.

Precisely who should be so designated is left to the discretion of any organisation. Individuals so designated should understand the statutory requirements, be able to act as competent persons under the legislation and ensure the continued maintenance of a safe system of work. The latter tasks should include matters relating to training and supervision. They should be responsible for the identification of hazards and designated managers should transmit such information by verbal or written instructions to the workforce, contractors, site users and site visitors. Designated persons should also be responsible for ensuring that the safety statement is applied and compliance with all statutory requirement. An important task is ensuring that all accidents are reported to the Health and Safety Authority if they involve an employee being off work for more than three consecutive days (excluding the day of the accident itself).

Regular site safety inspections should be undertaken by a designated safety officer in accordance with the safety statement. Written reports of inspections should be maintained at the site or at the operator's principal offices.

LANDFILL HEALTH AND SAFETY

Training

Operators should provide suitable training and instruction to site employees, both full time and part time. The operator should also ensure that any contractor working on site is also informed of the hazards and the necessary precautions. There is also a responsibility for persons employing contractors to ensure that the latter are able to act as competent Project supervisors in relation to the safety aspects of the relevant design and construction elements of their work.

All site personnel should be familiar with contingency procedures in the event of accident, injury, fire etc. The locations of emergency equipment should be identified during routine employee training. Phone numbers for local police, fire and ambulance services should be prominently displayed for use in the event of an emergency. Table 5 sets out an example emergency contact sheet. Other information will need to be displayed on the site in accordance with the requirements of the Safety, Health and Welfare at Work (Construction) Regulations 1995.

Staffing Levels

All staff and users of the site should be effectively supervised. No site open to receive waste should be manned by one member of staff working on their own. Similarly no unloading of vehicles should occur in the absence of site staff or out of their immediate view.

Medical

Good personal hygiene is essential to workers on landfill sites and hence hot and cold washing facilities must be provided. All workers at landfill sites, including those employed temporarily by the operator or by contractors working on the site, should have adequate protection against tetanus. This protection must be kept up to date, with boosters given at 10 yearly intervals. The onus should be on the employer to ensure that these injections have been received by employees and to require appropriate assurances from contractors working on the site.

First Aid

A first aid box should be available on site in a clearly marked location. The contents of the box should be monitored for use, so that supplies are checked regularly by a named individual responsible for its upkeep. Eye wash facilities also should be available: these should either employ running water or involve non-reusable eye wash bottles. Any bottle with a broken seal must be disposed of immediately and replaced. The operator should arrange for recognised occupational first aid training, with a minimum of one person with a first aid qualification normally present on site. All staff should be familiar with the first aid facilities available on site. The Health and Safety Authority has published guidelines on first aid.

Personal Protection Equipment

High visibility clothing should be provided and worn by all site staff and visitors. Safety boots and/or wellingtons should be issued to all site workers. They should have steel toecaps and have a steel insert in the sole to resist injury from projections of glass, metal or other items in the deposited wastes. Gloves should be issued as required. The type of glove should be puncture resistant and should be suitable for the relevant task, eg litter collection, vehicle fuelling, cold weather conditions. Safety helmets and eye protection should be available as

necessary. Ear defenders should be available for those driving site machinery or working in high noise areas. Operatives at landfill sites work in all weather conditions and will need to be provided with suitable windproof wet weather clothing.

Landfill Gas

All site staff should be made aware of the possible hazards from landfill gas. Smoking on site should be forbidden except in designated areas in the site cabins. Buildings and other enclosed structures located at the landfill should be designed to prevent the accumulation of flammable gas within them. Facilities to permit the free circulation of fresh air will generally be required, particularly under floors. It is imperative that all cabins, other store rooms and voids such as those below weighbridges and cabins should be regularly monitored for the presence of flammable gas. All service duct entries to buildings should be seen as possible gas pathways and hence appropriately monitored. Where it has been established that concentrations of landfill gas are above 20% of the lower explosive limit (LEL), the relevant building should be evacuated. Where this level has been observed within site buildings, the installation of continuous landfill gas monitors and an audible alarm is essential. Extreme care should be taken when reentering buildings thath have been previously evacuated. Procedures for the evacuation and reentry of buildings when significant amounts of landfill gas have been observed should be contained in the operator's safety statement. The unnecessary creation of enclosed spaces on site, such as by inversion of a skip for maintenance, should be avoided on all landfills. Lighting columns may permit the accumulation of landfill gas. Hence they should be sealed at the base and should contain intrinsically safe electrical equipment. Health and safety issues should have particular priority where any site works involves the disturbance of filled areas. In particular, drilling in deposited wastes may give rise to the evolution of noxious and/or combustible gases. Hence regular checks on gas build-up should be made as drilling proceeds. Similarly, any trenches constructed for the purposes of gas collection pipes will need to be physically stable and also monitored for landfill gas. On no account should persons enter trenches or other confined spaces without gas monitoring, rescue and other appropriate safety measures. All contractors should be aware of the hazards of working on landfill sites and be suitably experienced to address them.

Instructions should be issued to all employees that no-one should enter any confined space below ground level, such as culverts and manholes, unless an appropriately authorised person has certified that it is safe to do so. Safety precautions for areas where gas may accumulate require that:

- only persons with appropriate experience and training should be involved in entering confined spaces or providing back-up on the surface;
- smoking should not be allowed;
- persons entering a manhole should be equipped with self-contained breathing apparatus;
- persons entering a manhole should have a safety harness and appropriate line manned by at least two other employees;
- other employees at the surface should have spare breathing apparatus and the requisite training in its use; and
- lights or tools to be used in manholes should be intrinsically safe.
- If there is any doubt as to safety of an enclosed space, it should not be entered. The Health and Safety

Table 5: Health & Safety Information

Name Of Site:	
Location:	Grid Ref
Operator:	Phone Fax
Safety Officer	Phone Fax
Licensing Authority:	Phone Fax
Doctor:	Phone Fax
Ambulance:	Phone
Hospital:	Phone
Police:	**Phone**
Fire Service:	Phone
Location Map (Showing Site Location And Services As Above)	
Other Information	

Site Infrastructure, Signs and Barriers.

Steep gradients and sharp curves on site access roads should be avoided. If this is not possible warning signs and crash barriers must be provided. Speed limits should be displayed and enforced by the site operator. Vehicles should not travel over unstable areas on a landfill surface. Neither should they travel with their vehicle bodies raised up or being lowered. Sites should be provided with adequate lighting to allow for safe and efficient operation at the tipping area at dawn and dusk in the winter period. Trenches and lagoons used for liquid or sludge disposal should be fenced or be clearly marked with poles and bunting and each trench should be labelled to indicate the type of wastes allowed to be deposited. When filled, trenches should be covered immediately. After filling, it may be desirable that the position of trenches remains clearly marked.

Their soft nature, particularly when sludges have been deposited, may make them a hazard to site workforce, users and trespassers. Hazard notices should be utilised on the site in relation to deep water, leachate lagoons or steep faces. Physical barriers should be in place to prevent unauthorised access to culverts and other confined spaces. Culverts on landfill sites may be attractive to children and must be subject to adequate security measures to prevent entry.

Other Site Operations

It must be emphasised that the working area at a landfill site is dangerous with vehicles regularly manoeuvring in tight spaces. Totting or scavenging by site operatives should not be allowed. Any banksman directing vehicles at the face should be required to stand well clear of reversing vehicles and other machinery.

Site personnel should be instructed to prevent the access of obviously unsafe vehicles. However, it may be appropriate that these are unloaded and then are prevented from returning.

Hazardous Substances

The operator should ensure that exposure of persons at a landfill to hazardous substances, is minimised or, where exposure cannot be avoided, adequately controlled. Employees should be trained regarding:

- potential risks;
- associated preventative measures and precautions;
- existence of occupational exposure limits;
- actions to be taken;
- hygiene requirements; and
- personal protective equipment.

Guidance to occupational exposure limits in relation to chemical agents is given in a Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 1994. A schedule to the Code gives exposure limits for substances listed and reference should be made to the requirements of that schedule.

Landfills represent working environments where employees could be potentially exposed to a variety of different substances. Operators should assess the types of substances likely to be received at their sites and identify the risks they pose. Where known hazardous substances such as asbestos are deposited, clear procedures and supervision should be undertaken as part of the safety statement for the site.

Electrical Hazards

The electricity distribution system should be inspected annually by a qualified electrician. Residual current breakers should be fitted to all power outlets. External contractors undertaking works at the site must comply with the requirements of the National Rules for Electrical Installations and should preferably be members of the Register of Electrical Contractors of Ireland (RECI).

Electrical equipment located in areas where accumulations of flammable gas could occur should be selected, installed, and maintained in accordance with the requirements of BS 5345 Part 1. Portable equipment likely to be used in such areas should be similarly treated, e.g. telephones, monitoring equipment, radios etc. Overhead power lines may cross the site. These should be either diverted or measures should be taken to ensure that the level of waste does not rise above a level agreed with the electricity supply authority. At no time should vehicles or equipment be able to get within arcing distance of any electrical cables. All power lines should be signposted by protective barriers that should have cross members to prevent raised vehicle bodies passing in proximity to them. Any damage to these barriers should be dealt with immediately. On no account should excavation equipment be operated in proximity to live power lines. The Health and Safety Authority and/or the Electricity Supply Board should be contacted for advice in respect of landfill sites in close proximity to overhead cables.

Scavenging

Scavenging is the separation and removal for re-use of items such as scrap metal. In the past, it provided a means by which materials were recovered and recycled. The practice is dangerous and interferes with the efficient operation of a landfill. Scavenging is perhaps the greatest single cause of accidents and fatalities at landfill sites, due to the partially obstructed view of drivers of vehicles when they are reversing. For these reasons, scavengers should be prohibited on all sites.

Example 2:

Contingency

Contingency plan scenarios

Develop a contingency plan that includes procedures for responding to the following scenarios:

- on-site personal injuries
- leachate releases
- surface water or groundwater contamination
- landfill gas migration and associated fire and explosion hazards
- liquid spills
- fires (e.g., equipment fires, "hot load" fires, disposal site fires, building fires)
- explosions, accidents, and other emergencies
- detection of leachate in any secondary leachate collection and removal system
- leachate storage facility at or above capacity
- tank and surface impoundment spills or leakage, and
- storms and inclement weather

Notification List

Create an emergency notification list in the contingency plan (e.g., contact person, address, telephone number) and procedures for:

- emergency assessment
- communication
- identification of emergency response organization
- identification of community, civil authorities and regulatory personnel, and
- reporting.

Layout Map

Prepare a site layout map showing:

- facilities
- fire hydrant locations
- individual building floor plans showing locations of fire extinguishers, first aid kits and stations, exits and communication equipment, and
- other relevant site features

Fire prevention and control

Establish comprehensive procedures for fire prevention and control of equipment and solid waste fires.

Equipment Fire Prevention

Equipment fires generally are started by an electrical failure or fluid leak and oil and grease that spreads on the machine and on nearby refuse. Preventative maintenance on the machines will reduce the potential for leakage of flammable fluids. Routine cleaning of equipment will further contribute to fire prevention. Furnish a fire extinguisher with each piece of equipment. Consider automatic fire control systems for dozers and compactors.

Solid Waste Fire Prevention

Landfills fires can be started by "hot loads," spontaneous combustion, unknown combustible materials subjected to sparks, and by equipment fires. On-site personnel must always be on the lookout for "hot loads" and flammable materials. Subsurface fires resulting from spontaneous combustion can be difficult to locate and extinguish. Extinguish near-surface fires by covering the area with dirt. If the fire is deep, excavating the burning material may be necessary. Follow appropriate personnel safety precautions in all of these situations. Inaccessible fires require a different strategy. Extinguish these fires by cooling the burning mass in-place, or reduce available oxygen by closing cracks and fissures, or by adjusting the gas control system operations.

ANNEX 18:
SAMPLE ESTIMATED BUDGET

Quantity	Item	Estimated Cost
1. Recovery operations		
2	Soccer/police whistles	US $10
200	C batteries (for bullhorn)	US $25
2	20X20m tents	US $10,000
4	Pushcarts (for transport of materials)	US $600
2. . PPEs, ID badges and Health and Safety		
75	Long boots	US $1600
75	Gloves	US $400
75	Hard hats	US $750
75	Resistant goggles	US $100
75	Respirators and cartridges	US $150
75	Rain suits	US $850
75	Reflective vests	US $500
75	Better quality rain suits	US $1200
150	Cotton coveralls	US $3000
75	Raincoats (better quality)	US $1500
75	Pair leather elbow-length gloves	US $1000
1000	Dust masks/mo.	US $600
70	ID badges	US $250
3. Picker Shed fixtures, furnishings and supplies		
	Electrical fixtures	US $1250
Quantity	**Item**	**Estimated Cost**

	Improved plumbing fixtures	US $250
70	Lockers	US $24,000
1	Refrigerator (with door for drinks)	US $1000
1	Gas stove/gas tank	US $600
2	100 lb gas cylinders	US $350
2	6X2m wooden tables with benches	US $3500
12	Folding chairs	US $200
5	Trash bins	US $75
1	Kitchen counter	US $250
4	Kitchen cupboards	US $750
1	Sink	US $50
2	Shelves	US $50
1	Power wash	US $1,200
1	Hose	US $50
1	Water pump	US $50
6	Soap, cleaning agents, toilette paper, disinfectants	US $100
Other		
2	Technical visits by International expert	US $10,000
55	Bicycles	US $3,500
	Carpentry work	US $3400
	Discretionary budget (10% of total)	US $7320
Sub-total		**US $80,480**

ANNEX 19:
SAMPLE LIST OF MONITORING INDICATORS

This Annex includes a sample list of monitoring indicators organized per category of upgrading option.

Topic	Indicator
Upgrading Options	**Category 1: Site Access, Registration and Rules**
ID badges	• Number of registered recyclers • Number of issued ID-badges • Number of distributed uniforms • Number of recyclers using ID-badges • Number of recyclers using uniforms
Site registry	• Number of registered recyclers entering the site • Number of unregistered recyclers attempting to enter the site • Number of unregistered recyclers on the site

Site rules	• Number of trainings given to explain site rules
	• Number of violations of site rules
	• Indicators that monitor the effect of what the rules set out to combat such as:
	  • Number of daily accidents on site
	  • Number of daily fires on landfill

Upgrading Options	**Category 2: Health, Safety, and Living Conditions**
Personal Protective Equipment (PPEs)	• Number of trainings given to explain purpose and use of PPEs • Number of PPEs distributed • % of recyclers using PPE • Number of PPEs lost (after 1 year) • Number of PPEs replaced with own funds • Number of accidents on site

Topic	Indicator
ID badges	**See category 1**
Emergency Response	• Existence of emergency response procedure • Trainings given to implement emergency response procedure • Number of recyclers that have knowledge of emergency response procedure • Number of times emergency response procedure has been employed • Number of times emergency response procedure has been revised and updated • Number of times emergency response procedure has been tested
Medical Care	• Existence of vaccination programme • Number of (registered) recyclers vaccinated • Number of medical examinations scheduled and performed • Number of sick days of (registered) recyclers with a disease included in the vaccination programme • Number of sick days of (registered) recyclers with a disease included in the vaccination programme • Number of deaths of (registered) recyclers • Number of deaths of family members of (registered) recyclers
Hygiene	• Number of hygiene trainings given • Number of sanitation facilities (showers, toilets, hand sanitizers, trash bins) • Number of times per week sanitation facilities cleaned • Registered use of sanitation facilities
Fire prevention.	• Number of registered daily fires
Upgrading Options:	**Category 3: Gender, Minors and Vulnerability**
Women	• Number of specific actions developed for women and the impact of these actions.

Topic	Indicator
Minors and children	• Number of children active on the site • Number of adolescents (minors) active on the site • Number of children attending school • Number of children and/or adolescents suffering issues of health and social stigmatization.
Vulnerable groups	• Number of actions undertaken for elders, the sick or disabled, the mentally ill and the chemically addicted
Upgrading Options:	**Category 4: Working Conditions, Access to Materials and Recovery**
Upgrading recovery	• Implementation of operations plan at the landfill site and in specific at the tipping face. • Instructions and trainings given to operators and recyclers on reorganization of access lanes and equipment operation procedures. • Number of accidents • Quantity of recyclable materials recovered • Number of conflicts between operators and recyclers
Materials storage	• Construction of a dedicated storage facility • Average price obtained per separated material • Amount of separated materials lost due to fire • Amount of separated materials with diminished value because of exposure to natural elements (rain, wind, sun) • Amount of separated materials lost due to theft
Integration into source separation schemes	• Number of organized recyclers contracted (by the municipality) to operate door-to-door recyclables collection from households, private businesses, markets or government buildings
Upgrading Options	**Category 5: Efficiency, Productivity and Profitability**
Expanding the client base	• Number of new clients per type of recovered material • Amount (in Kgs/Tons) of recovered materials sold to new clients (in comparison with old client base)

Topic	Indicator
Raising productivity	• Amount of recovered materials per type of recovered material • Amount of recovered materials per (registered) recycler
Increasing scale.	• Number of collective arrangements undertaken • Number of contracts signed with third parties as a results of collective arrangements • Amount of recovered materials per type of recovered material
Diversifying business lines	• Number of (registered) recyclers participating in trainings given to diversify to other business activities. • Number of (registered) recyclers employed in other business activities.
Bypassing intermediaries	• Amount of recovered materials per type of recovered material sold through intermediaries • Amount of recovered materials per type of recovered material sold directly to the end-user (buyer) without intervention of intermediaries
Upgrading Options	**Category 6: Organization, Institutions and Capacity**
Formalization	• Number of training given that certificate qualification for professional recyclers • Number of government benefits received as a results of recognition of materials recovery as a legal profession.
Material support.	• Quantity of office space, equipment, facilities, etc. donated or access granted for meeting and training
Capacity building	• Number of trainings given in relevant skills
Social benefits and services	• Number of recyclers with access to healthcare, life insurance, credit, emergency assistance and legal counsel as a result of support from recyclers organizations.
Upgrading Options	**Category 7: Policy, Legal and Institutional Reform**
Policy development and advocacy	• Number of laws and legal measures that support recyclers

Topic	Indicator
Public outreach	• Number of public information and awareness-raising campaigns that promote recyclers, and encourage local communities to contract recycler organizations as service providers.
Outreach to law enforcement	• Number of trainings given to local police on recyclers • Number of registered incidents of harassment of recyclers by police
Partnerships with local government.	• Number of (service) contracts given to (organized) recyclers for activities including street sweeping, waste collection in under-served areas, or work in local recycling programs.

ANNEX 20:
SAMPLE INTERNAL MONITORING FORM

Ratings:	Month:	Year
1 = Highly Unsatisfactory		
2 = Unsatisfactory		
3 = Partially Unsatisfactory		
4 = Partially Satisfactory		
5 = Satisfactory		
6 = Highly Satisfactory		

Formalization Plan Internal Monitoring Tool	
1. Recovery Operations	
1.1.	Physical condition of site acceptable
1.2.	Recyclers complying with site rules
1.3.	Trucks able to tip efficiently without waiting
1.4.	Recyclers allowed adequate time to recover materials
1.5.	Machinery operating unimpeded by recyclers
1.6.	Continued or renewed existence/use of on-site shelters

Comments:

2. Registration, Access and Site Rules (include daily registries in annex)	
2.1.	# of entrants to site
2.2.	Maximum daily #
2.3.	Minimum daily #
2.4.	Average daily #
2.5.	Compliance with site rules
2.6.	# of recyclers sanctioned for breaking site rules

Comments:

3. PPEs	
3.1.	# of recyclers issued PPEs
3.2.	# of recyclers using PPEs
3.3.	Mechanism in place for replacing lost, broken or worn PPEs

Comments:

4. Health, Safety and Security	
4.1.	Presence of trained first-aid provider on-site
4.2.	**# of medical visits realized**
4.3.	# of recyclers attended

4.4.	Drinking water available on-site
4.5.	# of accidents requiring medical attention
4.6.	# of medical, safety and hygiene trainings held

Comments:

5. Dedicated Recycler Facility ("Picker Shed")	
5.1.	All necessary items installed (attach list in annex)
5.2.	Shed cleaned daily
5.3.	Recyclers involved in daily cleaning
5.4.	**# of lockers being used**
5.5.	# of cases of theft from lockers
5.6.	**Availability of basic amenities**
5.7.	Sustainability plan for payment of recurring costs agreed upon with recyclers
5.8.	Repair/replacement of broken and/or missing items

Comments:

6. Training and Information	
6.1.	# of training évents held
6.2.	# of attendees

ANNEX 21:
SAMPLE EXTERNAL MONITORING FORM

Ratings:

1 = Highly Unsatisfactory

2 = Unsatisfactory

3 = Partially Unsatisfactory

4 = Partially Satisfactory

5 = Satisfactory

6 = Highly Satisfactory

Formalization Plan External Monitoring Tool

Date:

Name/Title/Affiliation of Monitor:

Date:

No.	*Indicator*	*Rating (1-6)*	*Comments*
1	Functioning of recovery operations at tipping face		
2	Control of access (use of ID badges and exclusion of unauthorized personnel from site)		
3	Enforcement of site rules		
4	Distribution, condition and use of PPEs		

No.	*Indicator*	*Rating (1-6)*	*Comments*
5	Health, safety and security measures		
6	Regularity, quality, attendance and results of medical visits		
7	On-site first-aid measures		
8	Availability and condition of water and food		
9	Functioning of materials storage areas (temporary and overnight) and state of collected materials at pile		
10	Condition, functioning and use of Picker Shed		
11	Regularity, quality, attendance and results of training events		
12	Regularity, quality and effectiveness of consultations		
13	Functioning of grievance mechanism and dissemination and awareness		
14	Beneficiary satisfaction		

General Comments:

Cumulative Score:

NOTES

1 Various titles are used: Resettlement Action Plan (RAP), Livelihoods Restoration Plan (LRP), Social Action Plan (SAP), Informal Recycler Inclusion Plan (IRIP), etc.

2 "Final Disposal sites" can include everything from sanitary landfills to semi-controlled landfills, open dumps, and illegal dumpsites.

3 Many terms are used to designate persons engaged in informal resource recovery, and their relative accuracy and appropriateness remains a subject of debate. The 2008 First World Conference of Waste Pickers, held in Bogota, Colombia, adopted the term "waste picker" for English use to facilitate global communication, but this term retains a pejorative connotation. Other English, terms include "scavenger," "reclaimer," "rag picker," "informal resource recoverer," "binner," "recycler," "poacher," and "salvager." Spanish and Portuguese terms used in the Region include: ciruja, cartonero and excavador (Argentina); catador and chepeiro (Brasil); *cartonero, cachurero, chatarrero and recolector* (Chile); *basuriego, costalero, zorrego, botellero* (Colombia); buzo (Costa Rica, Cuba, Honduras and República Dominicana); *minador* and *chambero* (Ecuador); *pepenador* (El Salvador, Mexico); *guajero and pepenador* (Guatemala); pepenador and churequero (Nicaragua); *metalero* and *pepenador* (Panamá); *ganchero* and *pepenador* (Paraguay); *segregador* and *cachinero* (Perú); *hurgador* and *clasificador* (Uruguay); and *excavador* and *zamuro* (Venezuela). *"Chiffonie*r" is commonly used in French. This Guide has opted for "informal recycler," in the understanding that, while it imperfectly describes what most recyclers actually do, which is recovery, it nevertheless emphasizes their role as the first rung of the recycling chain.

4 Studies in India and Nepal have identified informal recyclers as a high-risk group for poor individual and public health. For instance, health surveys conducted in these countries show that recyclers have poor health and lower-than-average life expectancy (Nguyen et al. n.d.), likely due to their high level of unprotected contact with waste. Tuberculosis, bronchitis, asthma, pneumonia, dysentery, parasites and malnutrition were among the most common diseases experienced by recyclers, according to studies done in Bangalore, Manohar and Delhi (Cointreau-Levine 1998). Regarding life expectancy of informal recyclers a range between 39 and 53 years have been cited in different studies undertaken in region; the former value found in Mexico City (Castillo 1990), while in 2004 a World Bank study estimated life span to be 53 years (Bernstein 2004).

5 Data from the UN-Habitat publication, *Solid Waste Management in the World's Cities, Water and Sanitation in the World's Cities 2010,* based on research in 20 cities around the world, indicate that the informal sector plays an important role in municipal solid waste management systems in terms of tons of recyclables recovered annually. Municipalities such as Delhi in India and Quezon City in the Philippines reported a participation of 50% and 45%, respectively (in Managua, Nicagarua and Belo Horizonte, Brazil, the numbers were 16% and 2%, respectively).

6 One example is Brazil's 2010 National Waste Law, which obliges municipalities to involve recognized recycler organizations in the collection of separated recyclables. This builds upon earlier municipalities laws that recognize the role of recyclers in solid waste management and allow the implementation of partnerships between municipal authorities and recycler cooperatives in municipal recycling programs. Belo Horizonte and Porto Alegre are two municipalities that passed laws to establish covenants with groups of organized waste pickers. The *LEY N° 29419: LEY QUE REGULA LA ACTIVIDAD DE LOS RECICLADORES (07.10.2009),* passed by the Peruvian national government in 2009, regulates the activities of recyclers and is mandatory for municipalities. In the same year, funds were made available in Peru through Emergency Decree 119, from the Ministry of Economy and Finances, to reserve additional budget for municipalities with strategic waste management plans including waste separation and the involvement of organized informal recyclers.

7 Upgrading solid waste management systems involves modernizing the key physical elements of an Integrated Sustainable Waste Management System, namely: (1) protection of public health (by guaranteeing adequate at-source collection systems); (2) protection of the environment throughout the waste chain (particularly through safe treatment and dis-

posal); and (3) a focus on resource management and "closing of the loop" by returning materials and nutrients to beneficial use, preventing waste generation, and raising rates of organics recovery, reuse and recycling.

8 Such as the IDB's OP-710 on Involuntary Resettlement. For more details see: http://www.iadb.org/en/publications/publication-detail,7101.html?id=18715

9 This Guide does not specifically address physical resettlement (i.e., loss of housing or shelter), as this is already discussed in other publications. It is advisable for Economic and Physical Resettlement Plans be developed separately, as they concern issues and actions that are quite distinct.

10 This iterative process can also be influenced and impacted by planning processes to develop municipal solid waste management plans.

11 The plan may also be structured along the lines of a Process Framework, which applies to loss of access to resources in protected areas. Where the number of affected persons is small, it may also be possible to prepare an Abbreviated Plan. Even where no donor policies are involved, these structures and templates may still be useful as a guideline.

12 In some countries, national standards for operating sanitary landfills restrict the access of informal recyclers to the tipping face or even to the site. Similarly, municipalities may decide to implement source separation schemes operated by their own staff or contracted out to private enterprises.

13 In projects financed by IFIs, the Loan Agreement is a legally binding document and safeguards compliance thus mandatory, regardless of the standards set by local law. Conversely, where local legislation follows a higher standard than the applicable donor safeguard policy, it is the standard that must be followed. Today, some governments have developed policies on informal recyclers that go beyond donor safeguard standards.

14 Although informal recyclers working at a site to be closed or rehabilitated may not be technically covered under Resettlement policies where there is no actual taking of land, they are still threatened with loss of access to assets, income, and/or means of livelihood. A broader approach to affectation thus includes not only the taking of land, but any *change in its use* as well. When in doubt as to whether a policy is triggered, it is generally preferable to trigger it in a precautionary manner. Alternately, it is possible to refrain from technically triggering the policy while applying a quality enhancement approach that complies with the policy's basic requirements and even extends beyond them.

15 The typical waiting period for payment of a junk shop is approximately 90 days, meaning that these businesses generally need some 3-6 months of working capital for normal operation.

16 In certain cases, the national political situation may be a predominant factor. In Brazil, President Lula Ignacio da Silva cultivated a particularly strong relationship with recyclers that directly impacted national policy. In Guyana, a national ban on the export of recovered metals had a major impact on recyclers' livelihoods. In Colombia, a court decision recognizing the recyclers' legitimacy as actors in the sector transformed their access to work in the sector.

17 Certain actions designed to raise recyclers' incomes may result in reduced opportunities for others (granting cooperatives exclusive rights to waste, for example, may exclude non-members from access, and intermediaries are likely to resist recyclers' empowerment where this reduces their profits).

18 This first option implies the presence of recyclers at the tipping face. This option does not represent an ideal solution and it is always recommended as a transitional option (some national regulations even prohibited this practice). However, it can it be considered a first step in cases where the other proposed options are not applicable immediately.

19 "Monopsy" is to demand what monopoly is to supply: a single buyer to which all must sell. Such an arrangement tends to reduce sales prices. The term was first applied to recyclable materials by Medina (2007).

PREPARING INFORMAL RECYCLER INCLUSION PLANS: an operational guide

IDB

IRR Regional Initiative for Inclusive Recycling

This guide was developed in the framework of the Regional Initiative for Inclusive Recycling, a four year partnership developed by the Multilateral Investment Fund and the Water and Sanitation Division of the Inter-American Development Bank, the Avina Foundation and The Coca Cola Company to inte- grate informal waste collectors and recyclers into the formal recycling market.