



# COMMUNITY-BASED WASTE MANAGEMENT FIELD HANDBOOK

*Developed for the Project for Building Resilience  
against COVID-19 through WASH and Waste  
Management Support in Urban Informal  
Settlements (March 2021 – February 2024)*

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February 2024

This practical guide was prepared by UN-Habitat Myanmar and Thant Myanmar under the project for building resilience against COVID-19 through WASH and waste management support in urban informal settlements.

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## **PART I**

# **WHAT IS COMMUNITY- BASED SOLID WASTE MANAGEMENT?**

**TO INITIATE COMMUNITY-BASED  
WASTE MANGEMENT**



# I-1. Introduction

As the focal point for all urbanization and human settlement matters within the UN system, UN-Habitat sets its mission to promote socially and environmentally sustainable human settlements development and the achievement of adequate shelter for all. The agency's work contributes to the UN Sustainable Development Goals, in particular, Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable.

UN-Habitat Myanmar has been implementing the work under the project for building resilience against COVID-19 through WASH and waste management support in urban informal settlements since March 2021. The project components to improve solid waste management include waste segregation, proper waste disposal, compost making and plastic use reduction.

This document aims to aid residents of informal settlements in Yangon. Lack of waste segregation and improper disposal have become serious issues partly due to lack of knowledge and absence of practice.

As proper waste segregation and management is vital to create healthy and environmentally sound communities, this handbook is meant to summarize basic information for households and community leaders to initiate community-led waste management.



## I-2. What is waste?



We continuously generate waste in our daily lives. Appropriate management of waste benefits not only the households but also the community environment. It also decreases health risks created by the waste. The first step in proper waste management is separating different kinds of waste. In general, waste can be divided into two categories: biodegradable (organic) and non-biodegradable (inorganic). Sometimes they are referred to as wet waste for biodegradables and dry waste for non-biodegradables.

Biodegradable (organic) waste is made of or comes from living matter or materials. Non-biodegradable (inorganic) waste is artificial or is not made of or does not come from living matter. Non-biodegradable wastes are those that cannot be decomposed or dissolved by natural agents. They are the main causes of pollution.

Biodegradable materials make up 77% of the waste in Yangon City while non-biodegradable waste such as plastic, paper and others account for 13%, 7% and 3% respectively.<sup>1</sup>

<sup>1</sup> Policy Report, "Waste Management in Myanmar: Current Status, Key Challenges and Recommendations for National and City Waste Management Strategies," UN Environment and Institute for Global Environmental Strategies (IGES), 2017."

# Biodegradable (Organic) Waste

Biodegradable (organic) waste is made of or comes from living matter or materials. It includes kitchen waste, animal excreta, garden waste and waste from altars/temples/monasteries, and paper waste. There are different kinds of biodegradable wastes in our living environment.

## Example 1

it includes vegetables, fruit peels, meat bones, cooked food waste, and eggshells from your kitchen waste.

## Example 2

Garden and plant waste, such as flowers, sticks, twigs, branches, leaves, weeds, grass clippings, and plant trimmings.

## Example 3

Paper waste includes newspapers, paper covers, paper bags, paper tape, books, cupboards, brown papers.

**NOTE:** While paper is technically biodegradable, it may be often treated or combined with non-biodegradable materials (i.e. plastic cover, lamination).

## Kitchen waste



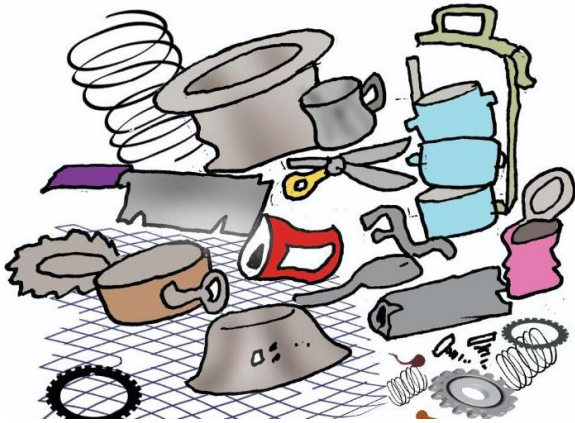
## Garden / Plant waste







## Metal waste



### Example

Tins  
Steel used utensils  
Food metal packages  
Old keys  
Metal clips and scraps  
Iron wires, sheets, or grilles

## Bio-medical waste



### Example

Sanitary pads  
PPE kits  
Masks  
Inhalers  
Medicinal covers  
Syringes  
Anything that has touched blood  
Used tissues

## Electronic waste (e-waste)



### Example

Computers  
Mobile phones  
Game controllers  
Refrigerator waste  
Used batteries  
Light bulbs  
Induction cookers  
Electric pots  
Electric irons

### Note

Some e-waste is also hazardous due to toxic chemicals found in batteries, for example.

## I-3. Why do we need waste management?



Waste management is necessary to protect the long-term health of our environment and community. Waste segregation and practicing Reduce, Reuse and Recycle (3Rs) principles are the most important steps in waste management. Waste segregation refers to the separation of biodegradable and non-biodegradable waste. The 3Rs refer to behaviours related to the consumption and reclamation of different products in an environmentally friendly manner.

Furthermore, successful waste management needs active participation of all individuals and the community. Without their active participation, the whole system is susceptible to collapse.

It is for this reason that raising awareness on the importance of proper waste management among community members and building the capacity of community volunteers on the same form core parts of this intervention.

# Advantages of proper waste management

Proper waste management has several benefits:



**Improved community health:** Right waste management will reduce festering and rotting waste in the community. Since festering and rotting waste can lead to the spread of disease, proper waste management can reduce the health hazards posed by waste.



**Physical safety:** Carelessly discarded waste can be dangerous, especially when sharp objects like rusty nails, glass shards, broken bulbs, banana peels and oily materials are left on the ground. Proper waste management also protects community members and waste collectors alike from these potential health hazards. Waste management can also reduce the risk of other safety hazards such as water contamination and fires.



**Economic benefits:** Recycling plastic bottles and tin cans can have economic benefits in the form of extra income in addition to saving the earth. Composting can also help people save money by reducing their need to purchase fertilizers.



**Clean environment:** Waste segregation helps neighbourhood look clean and reduces the state of environment where rodents and other pests might thrive. Segregated waste also takes up less space and emits less greenhouse gases. Composted waste can also enrich the local soil.

# Disadvantages of inappropriate waste management

Improper waste segregation or disposal can cause many problems to individuals, communities and the environment. This section introduces some of disadvantages resulting from inappropriate waste management.



Piled, mixed waste releases methane gas, a toxic gas that creates health issues such as reduced oxygen levels, nausea, compromised vision, polyps, etc.



Disadvantages of inappropriate waste management. The pollution can also eventually enter our food chain in the form of micro-plastics, which are hazardous to our health as well as animals.



Money is lost when goods that can be recycled are sent to a landfill as mixed waste.



Improper waste management can lead to clogged drainage systems. Clogged drainage systems can lead to floods during or after a heavy rain, typhoon, etc.



Disposal of mixed waste which contains hazardous materials may lead to major health issues, especially for waste collectors. Waste collectors are exposed to metal, methane and other toxic chemicals. Such disposal sites are also susceptible to fires which are dangerous to the surrounding communities.



If people practise open burning as a form of disposal, it may cause health issues because burning waste releases toxic materials into the air. When people inhale these toxic materials, they may face serious health issues.



Improper waste segregation or disposal can lead individuals and communities to use up extra space unnecessarily.

## I-4. What can we do with the waste?



There are several approaches to work with waste. Biodegradable waste can be used as animal feed or converted into compost. Non-biodegradable waste can be put to best use through the principles of 3Rs (Reduce, Reuse and Recycle).

# Approaches for use of biological waste

## Approach 1: Waste as animal feed

Some biodegradable waste can be repurposed as animal feed.

Findings from a recent waste audit of 100 households conducted in Dala Township by Thant Myanmar and UN-Habitat showed that 30% to 50% of waste is repurposed as food for animals, such as pigs, goats, cows or horses.

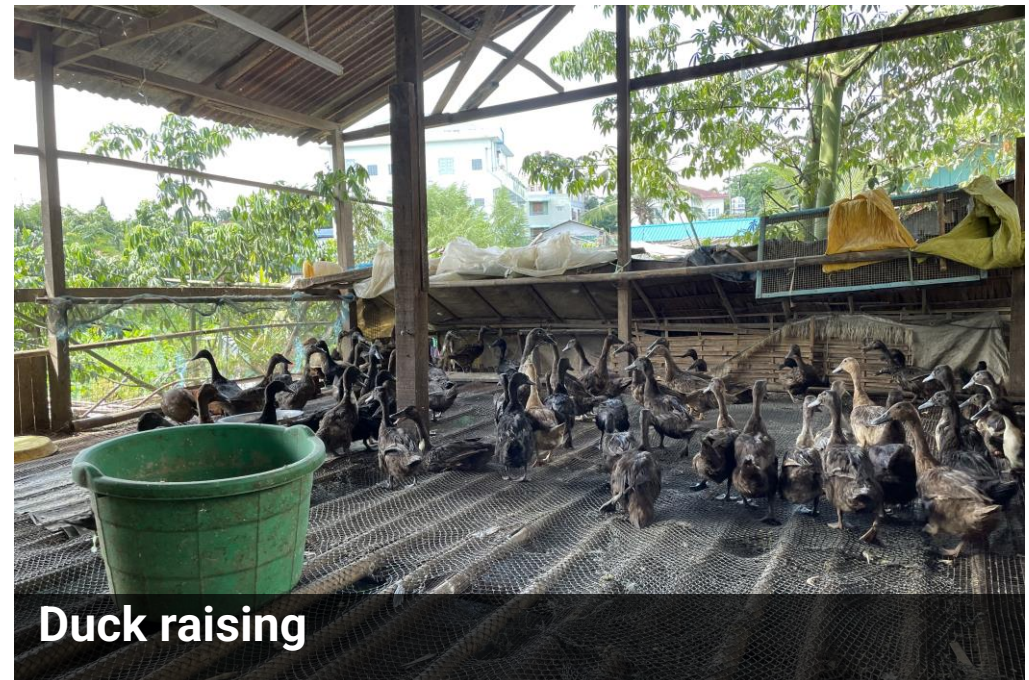
This is an easy way of saving or generating money where people raise livestock or poultry.

However, some food waste can be harmful to animals. For instance, onion and garlic peels can cause stomach problems of animals.

Therefore, before the launch of the project, poultry and livestock farmers should be educated by project staff or experienced people about the types of food that can be fed to the animals and those that should be avoided.



**Pig raising**



**Duck raising**

## Approach 2: Waste as compost

Composting is the natural, biological process of recycling biodegradable matter into fertilizer. Compost is made of decomposed matter which can enrich soil and plants.

In general, over 80% of waste generated by households is considered biodegradable waste, and composting is the best approach for repurposing biodegradable waste that includes leaves, branches and vegetable cut-offs.

Compost is nutrient rich natural fertilizer that can be used to improve soil quality. Normally the resulting compost can be used directly by households for their own garden instead of chemical fertilizers.

In cases where larger compost piles can be set up, compost can be sold to farmers creating new forms of livelihood in the community.





## Steps for composting at the household and community level

The recommended approach to composting is to continuously add new material to the compost bin without turning. A simple compost bin can be constructed from almost any materials including pieces of metal or bamboo and fishing nets or any material that allows air to pass through. The following steps outline a simple composting process.

Steps	Activities
1. <b>Create a bin</b>	Create a compost bin using locally available materials. Ensure that air is able to pass through the bin.
2. <b>Add waste</b>	Add biodegradable waste to the compost bin. See the table in page 14 for a complete list of what can and cannot be composted.
3. <b>Add water</b>	Add water twice a week in the dry season to keep moisture content of around 50%.
4. <b>Wait</b>	Leave the compost bin and wait for approximately 4-6 months to allow the waste to turn into compost.



Compost bin that uses an old wire mesh

## Dos and Don'ts for composting

### Dos



Add water twice a week in the dry season to keep a moisture content of 40-60% by weight.

Build the compost bin in a shaded areas, such as under a tree, to keep a moderate temperature

If possible, add compost materials in layers, alternating wet and dry waste

Remove items or avoid putting things in the bin that do not decay or decompose (e.g. plastics, pieces of cloth, iron scraps, etc.)

### Don'ts



Do not put food waste like cooked food, meat or fish in the compost bin to prevent foul smells

Do not let the compost bin become totally dry

Since there may be a lot of dry leaves in the compost bin, do not allow people to smoke nearby

Do not compost bones, cheese, cooking oil, meat products, milk, or peanut butter. See the full list below of green waste and brown waste.

*Note: To determine the right consistency, you put on a pair of garden gloves, pick up the watered compost and squeeze it. If water excessively pours out, then you have exceeded the optimal amount of water.*

## Compostable waste

### Green wastes that decompose quickly

- |  |  |
|--|--|
| • Fruit and vegetable scraps   | • Spoiled tofu and fermented soybeans            |
| • Cooked rice  | • Grass clippings                                |
| • Leaves and flowers trimmed from houseplants                                | • Spoiled soy/rice/almond/oat/coconut milk       |
| • Coffee grounds   | • Seaweed  |
| • Horse, cow or goat manure  | • Old herbs and spices                           |
| • Stale pumpkin, sunflower or sesame seeds (chopped up so they can't sprout) | • Avocado pits (chopped up so they don't sprout) |

### Brown wastes that take longer time to decompose

- |   |  |
|---|--|
| • Nut shells and peanut shells                        | • Old rope and twine (chopped, natural, unwaxed only)  |
| • Eggshells (crushed)                                 | • Dead houseplants and their soil                      |
| • Toilet paper rolls and paper towel rolls (shredded) | • Newspapers (shredded or torn into smaller pieces)    |
| • Coffee filters                                      | • Used paper napkins, paper towels, and facial tissues |
| • Nail clippings                                      | • Fur from the dog or cat                              |

## General Rule “Keep it moist”

During the dry season water must be added regularly to keep the waste moist enough for it to continue to break down. The bigger the compost bin you have, the more water you will need (more evaporation due to the greater surface area). The amount of water that must be added will also vary with local wind conditions. A couple of buckets every other day should be sufficient. Adding less water to the waste will still lead to compost, but it will slow down the process.

The most nutritious compost is made from a wide variety of waste materials from the yard and kitchen, with a mixture of brown and green waste. The greater the variety of compost ingredients, the richer the compost. Keeping a careful balance of brown and green waste is one of the most important tips for fast composting. A healthy compost pile should have much more brown waste than green waste. A simple rule of thumb is to have one-third green and two-thirds brown waste.



# Approaches for non-biodegradable waste

To manage non-biodegradable waste in the community, waste segregation by individual households is the key.

Waste segregation aids proper waste disposal and encourages people to practice 3Rs (Reduce, Reuse, and Recycle).

Therefore, community residents are encouraged to become familiar with each of the 3Rs, how different types of non-biodegradable waste can be reused, repurposed or recycled, and the positive impacts of waste separation.



## Approach 1: Reduce

The first 'R' is reduce. Reducing waste is about consuming less and creating less waste. Consider the following ways to reduce non-biodegradable waste.



Only buy what we need



Use reusable spoons, chopsticks and utensils at home and ask for reusable spoons and chopsticks at restaurants or any other eating place



Choose products with less packaging



Bring your own packets, tiffin carriers, plastic/rattan baskets, and plastic or paper bags during shopping or when buying something



Use products with longer lifespans (e.g. Use LED lightbulbs rather than Incandescent)



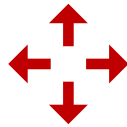
Some items can be used more than once. Instead of buying new, look for items that we can reuse

## Approach 2: Reuse

The second 'R' is reuse. Reusing waste involved using certain items again, ideally multiple times, before replacing them. Here are some ideas on how to reuse items:



Fill up a safely reusable water bottle at home instead of buying a new one every day.



Before throwing away an item, think about using it in different or creative ways



Use items multiple times before they break, such as plastic utensils, food containers, and plastic bags



Packing materials can be saved and reused again for packing



Reuse plastic bags to collect and separate waste around the house



Ditch plastic bags and choose reusable, environmentally friendly bags instead



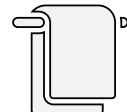
Sheets of paper that have been used on only one side can be used again for note-taking or rough drafts



Use cardboard to plant seedlings



Offer outgrown clothes, furniture and household items that you no longer need to people in need, friends, or charity



Old towels and sheets can be cut in small pieces and used as dust cloths



Books and magazines can be donated to schools, public libraries, nursing homes or orphanages, etc.

## Approach 3: Recycle

The third 'R' is recycle. Recycling is about separating items that can be broken down and re-processed into the same or new items. Recyclable waste is saleable. In Myanmar, waste pickers or YCDC staff separates recyclable items from waste collected from households. Junk shops and recyclers buy the separated, recyclable waste. Households that want to recycle may have to collect large quantities of a single item in order to sell it to a junk shop or a recycler.

Recyclable materials include many kinds of glass, paper, cardboard, metal, plastic, cans, tires, textiles, batteries, and electronics.

### Example

- Paper including newspapers, magazines, and exercise books (Without hard cover)
- Cardboard (OCC)
- Glass bottles and jars
- Pet bottles (polyethylene terephthalate)
- Rigid plastic products
- Metal containers, including tin, aluminum, and steel cans.
- Tires
- Electronics





## I-5. How can waste management be promoted at community-based level?



If you want to see the benefits of waste management in your community, there are several tips you can follow.

In general, waste management must be conducted on a community wide level to be successful. The community must therefore become educated about the waste separation and regular waste disposal practices described in this manual. Furthermore, community members should be actively involved in all stages of the waste management process from designing the process, to implementation, and finally to monitoring and evaluation of waste management practices.

To ensure success and sustainability of the intervention, capacity of community members should be built, and ownership of the project should be given to them by promoting participation of people in all stages of the intervention—planning, implementation, and monitoring phases.

It is also recommended to form solid waste management committees with suitable persons. Gender balance shall be taken into account.

# Encouraging the 3Rs in communities

Community leaders or members of a solid waste management committee are recommended to adhere to the following tips for encouraging the adoption of 3Rs in their communities.

<b>Reduce</b>	<ul style="list-style-type: none"><li>● Monitor waste disposed from individual houses and provide guidance for improved separation</li><li>● Encourage people to do composting and reduce the amount of biodegradable waste</li><li>● Prepare information, education and communication (IEC) materials and raise awareness on the dependency of non-biodegradable products such as single use plastics in shops or restaurants</li></ul>
<b>Reuse</b>	<ul style="list-style-type: none"><li>● Encourage shops to reuse paper, old cardboards or other locally available materials for packaging</li><li>● Start campaigns that incentivise community members to ditch plastic bags and use reusable and environment-friendly bags instead</li><li>● Install community water stations and promote a bring your own (BYO) container concept when making purchases</li><li>● Prepare IEC materials and introduce examples to reuse the plastic bought in shops and restaurants such as for decoration</li></ul>
<b>Recycle</b>	<ul style="list-style-type: none"><li>● Recyclables are collected at doorstep normally. If that cannot be done in some areas, strategic locations should be identified where recycling bins are placed next to biodegradable and non-biodegradable waste bins</li><li>● Develop information, education and communication (IEC) materials such as pamphlets and posters on recycling and emphasizing potential profits through appropriate recycling</li><li>● Use social media to spread the news about how households have seen success through recycling their waste</li><li>● Educate school children and young people in the community and ask them to share their knowledge about recycling with their families</li><li>● Encourage households that start recycling to share the metrics of their success (Amount or volume of recycling and money earned through the process month by month)</li></ul>

# Capacity building trainings

## Purpose

Capacity building of community members is a vital activity to promote solid waste segregation and management in communities. To enhance awareness of the people on SWM, capacity building trainings should include knowledge sharing on the intended SWM activities (e.g. waste segregation and collection, compost making, plastic bag reduction campaign) and their benefits, discussion with community members on how to create an action plan based on their issues encountered, needs and vision.

## Tips

- Making use of visual / audio materials during the sessions.
- Using simple language by avoiding jargons and English terms during the sessions.
- Making the training sessions as interactive as possible. Encouraging participation of representatives from all community households, local leaders and elders.
- Encouraging people who keep quiet to talk more.



*Note: Household waste collection services may be provided for free for a certain period to motivate the community members for bringing about their behavior change on solid waste management.*

# Household solid waste collection

## Purpose

As the communities in informal settlements do not have regular waste collection services in general, they are encouraged to introduce them. They shall form respective solid waste management committees after which nominate waste collectors and assign them to collect household waste regularly at doorstep or at designated collection points. Waste pickers shall be given minimum wages.

## Tips

- Conduct cost analysis and set prices for the household waste collection by considering wages for waste pickers, the waste volume each household generates as well as the distance to the nearest public garbage dump.
- Discuss with the regional municipality concerned on pick-up points and frequency of regular waste collection.
- Create rules specifically on household waste collection including suitable wages for waste collectors and how to manage waste collection pushcart (i.e. where it shall be kept, responsible person for its regular repair and maintenance).
- Select suitable waste collectors who have experience, capacity, and commitment.
- Decide proper price setting for waste collection because waste pickers need to earn enough money to make a living through their services.



# Individual / community compost making

## Purpose

Compost making is one of the approaches to repurpose wet (bio-degradable) waste and reduce total volume of waste disposal. It also helps waste pickers to reduce chance to make them wet and touch bacteria or odour during their waste collection (Detail explanation in page 14-18).

## Tips

- Based on the introduction of compost making during the capacity building trainings, individual households or groups of a few households are encouraged to make compost bin.
- Negotiate and seek collaboration with the waste collectors to add compostable wastes in the bins.
- Post vinyl or posters on what wastes can and cannot be composted in public areas within the community.
- Ensure that compostable and non-compostable waste, such as plastic materials, are not mixed. If possible, add more green waste than brown waste to harvest compost in shorter time.
- People who have knowledge about compost making regularly monitor and advise people who are making compost.



# Plastic bag use reduction campaign

## Purpose

The waste audit in informal settlements in Yangon between 2022 and 2023 revealed that approximately 90% of waste is compostable waste and the second biggest waste is plastic waste (approximately 10%). People use plastic bags frequently because shops give them for free, and they are very cheap. Cooperation of shop owners is important to reduce plastic bag use in the community to change the behaviour of community members on their use of single-use plastic.

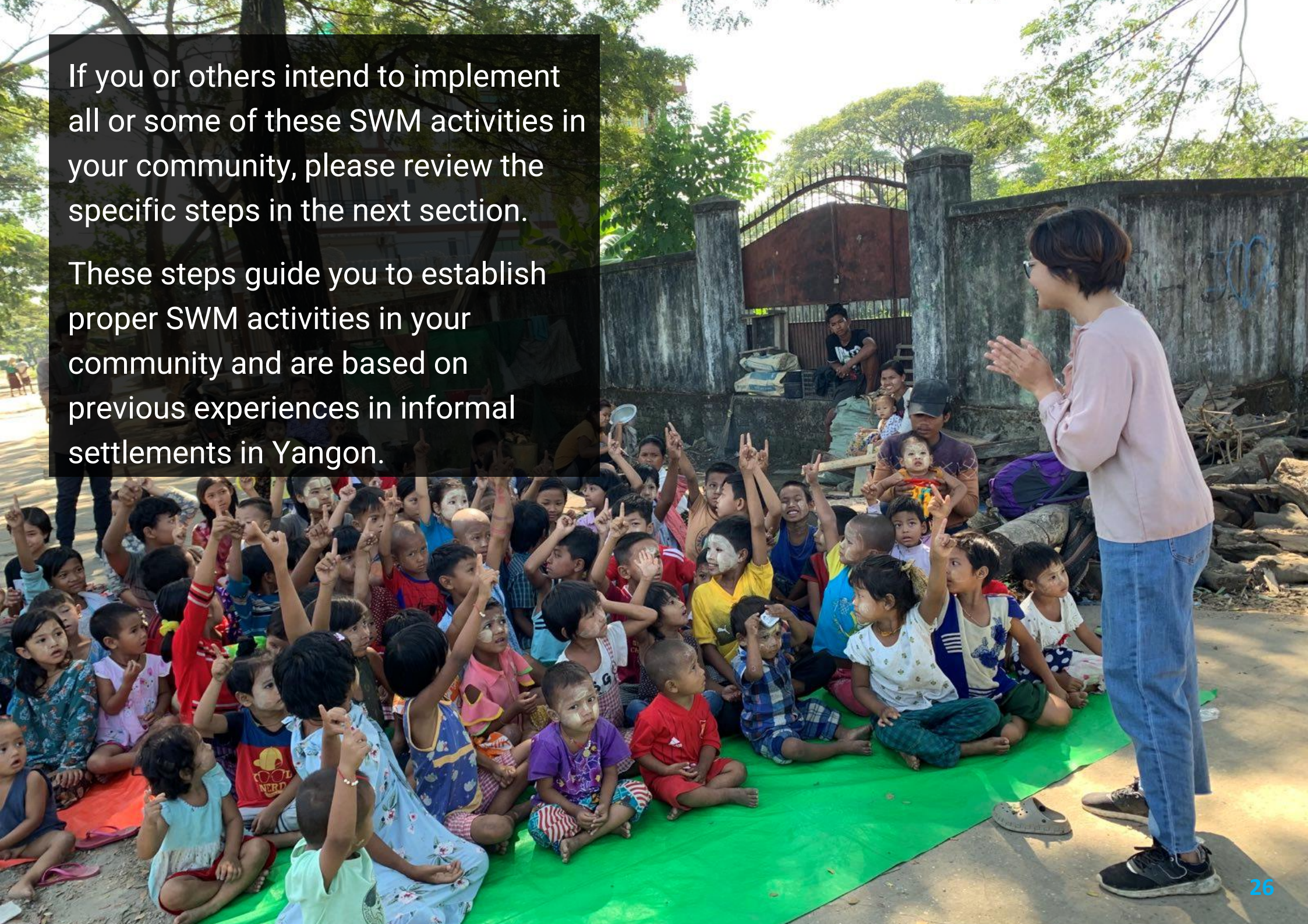
## Tips

- Encourage shops to participate in the plastic use bag reduction campaign.
- Explain shop owners about the campaign and system, specify discount given to customers if they don't take a plastic bag and use their own reusable bag or container.
- Discuss with shop owners and fix a discount price for customers who refuse to take plastic bags. Price setting should consider benefit to shop owner by reducing purchasing plastic bag. It could be Win-Win for customers and shop owners. The project subsidizes the shops for in an initial phase for the people to make a behavioural change.
- Create posters that reflect on the dangers of the use of plastic to the environment and encouragement of bringing own bags / containers.



If you or others intend to implement all or some of these SWM activities in your community, please review the specific steps in the next section.

These steps guide you to establish proper SWM activities in your community and are based on previous experiences in informal settlements in Yangon.





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UN HABITAT  
FOR A BETTER WORLD





## PART II

# A GUIDE FOR COMMUNITY WORKERS IN INFORMAL SETTLEMENTS



## II-1. What is the target of the Part II ?

01 **Target reader:** Previously community development trained personnel

Before using this guide with communities, you should have received training on community development activities related to Water, Sanitation and Hygiene (WASH).

02 **Methodology:** Tried and tested structures

It is based on 5 years of experience working in low-income urban areas in Myanmar where the project has brought about behavior change among community members in their disposal of household waste.

03 **Target area:** Limited access to municipal service

This handbook helps community workers to make use of a step-by-step methodology for setting up a waste management system in a community with limited access to a municipal service.

## II-2. The Goal of Community-based SWM:

### The ideal community from the perspective of Solid Waste Managements

The ideal Solid Waste Management (SWM) system in an urban setting with limited formal collection is where the community itself organizes primary waste management with a strong focus on reduction of waste at source. It can be relatively advanced from the perspective of SWM. It is of utmost importance to be very practical on one side while at the same time find mechanisms which incentivize segregation and reduction of household waste throughout all community activities. This is challenging and requires time. The final aim of a community SWM system should be that community members internalize:

#### REDUCTION

- Segregate waste at the source and treat organic waste by feeding animals or making compost
- Reduce plastic use by refusing plastic bags, setting up refill mechanisms, etc.
- Awareness is raised to the community on the danger of plastic and individuals see behavior change.

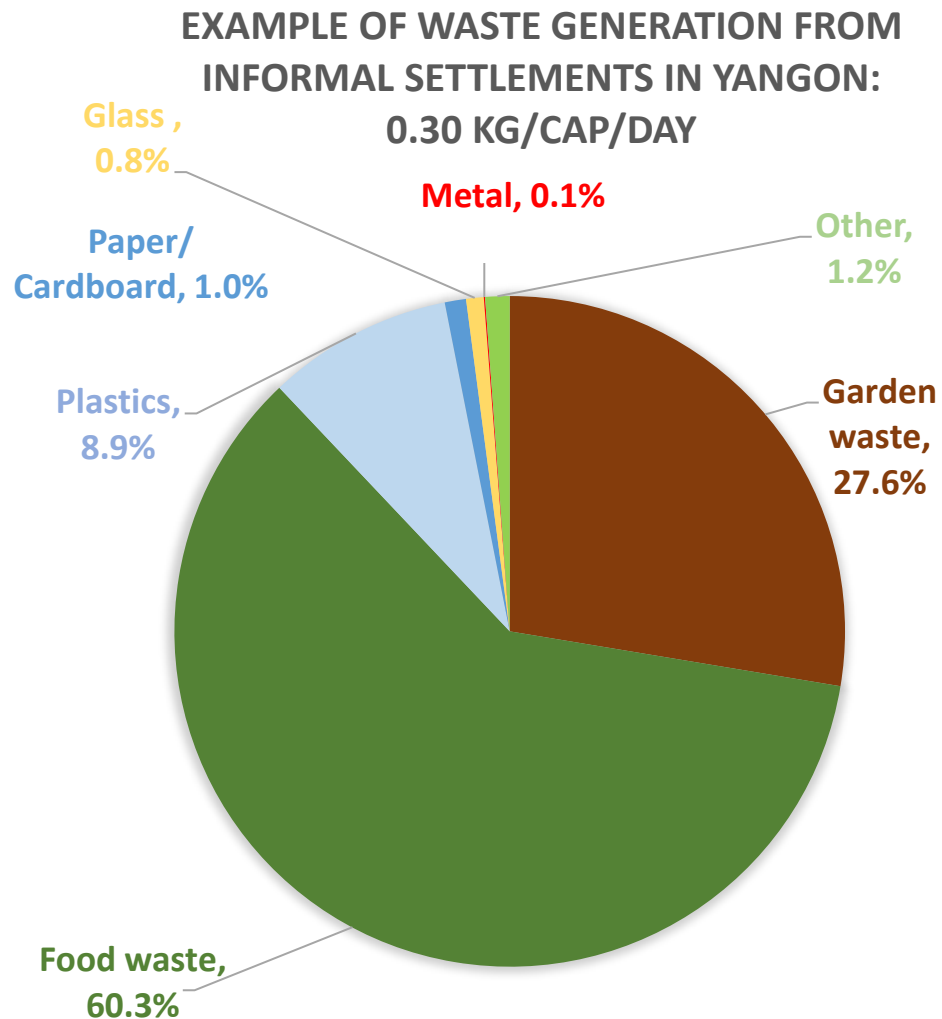
#### COLLECTION

- Integrate existing informal system into the community waste management system as core labor force.
- Set up a good connection between households and the waste collectors
- Agree on a regular payment method to sustain community collection (periodically or pay as you drop)

#### DISPOSAL

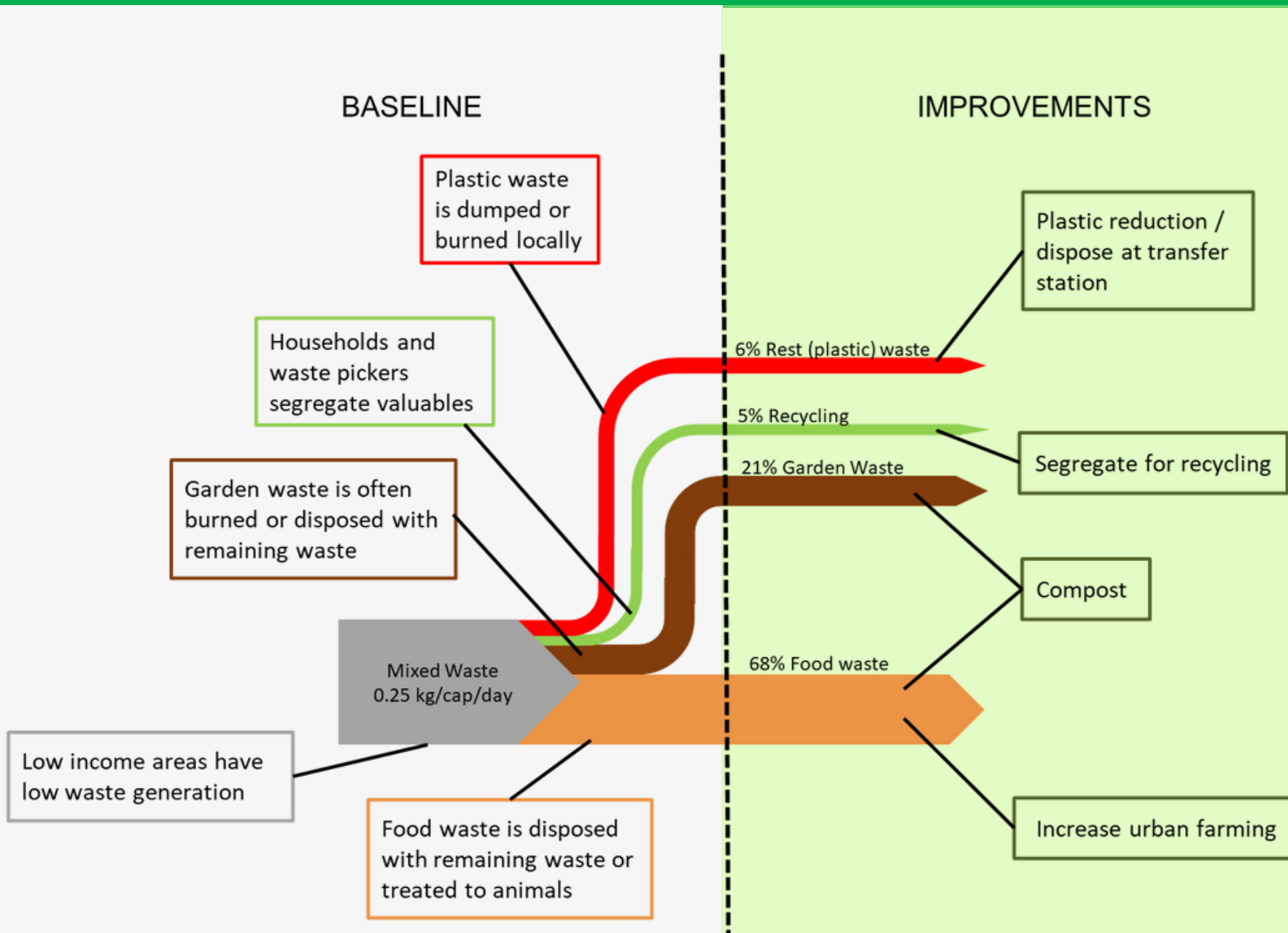
- Dispose of remaining waste with the municipality
- Seek agreement with municipality on sharing expenses on the collection system

## II-3. Key data to keep in mind for low-income areas



- Waste generation rates are lower (around 50%) compared with formal settlements or relatively well-off neighborhoods as commercial and industrial activities are not found
- 80% to 90% of waste is organic in comparison to only 60% to 70% looking at city wide data
- Food waste (around 65%) is treated to some degree sustainably (fed to animals)
- Plastic is the only component in the waste stream which requires a waste collection system for its disposal
- Less than 10% of plastic waste has a potential of being recycled (mainly PET). HDPE and PP items have a higher reuse value.
- Main plastic waste items are: bags, sachets and blister packaging/plastic coated wrapping paper which are driving environmental pollution.

# Urban waste flow

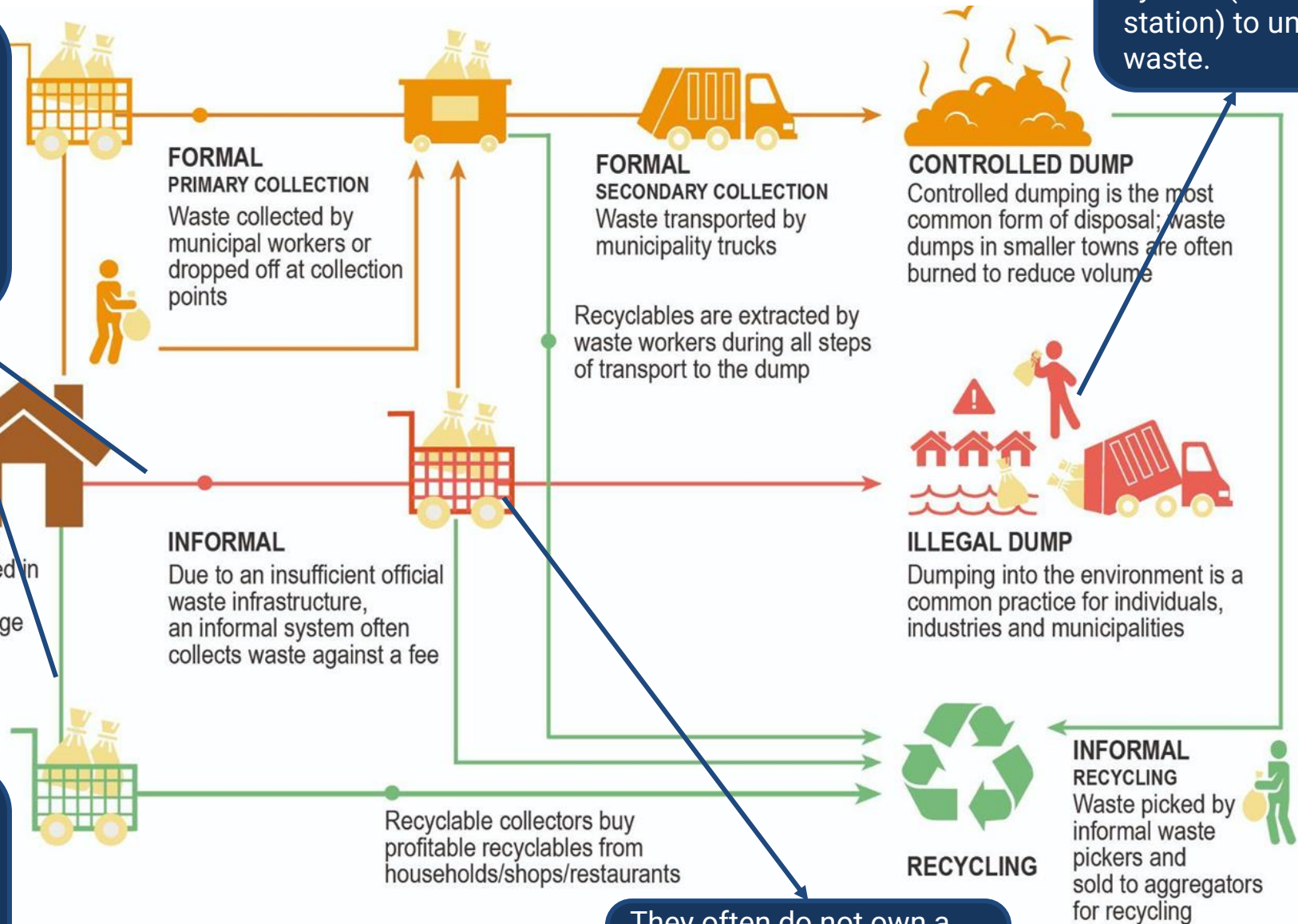


# What is informal collection?

Waste collectors provide their service either at a fee collected from households and/or by buying recyclables from the community.

Individual uncontrolled disposal is still practiced in most towns leading to heavily clogged drainage canals/drains that contribute to flooding

They may face harassment from local authorities or the community as their service is seen as socially "dirty".



They often do not own a waste cart but rent it from businesses like junk shops.

## II-4. Key definitions

### **STEP**

A step may contain one or more activities aimed at achieving the overall objective.

### **ACTIVITY**

An activity is one specific action taken inside one step aiming at putting a piece of infrastructure in place or reach an understanding/agreement with a specific stakeholder.

### **MATERIALS**

Most activities require some form of additional materials. They range from Information, education, and communication(IEC) materials for trainings, questionnaires for conducting surveys and components to build infrastructure. Materials as provided in this guide can be either copied, used or adjusted to specific local requirements.








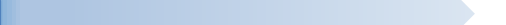










## II-5. Ideal team field capacity to build community-based SWM system



# II-6. Steps and activities to build community-based SWM system

Activity for:   
 Educator   
 Facilitator   
 Technician

Steps	Activity	Activity for:		
		Month 1	Month 2	Month 3-6
1. Community introduction and observation	<ol style="list-style-type: none"> <li>1. Meet local authorities &amp; community leaders</li> <li>2. Observe community &amp; collect baseline data</li> <li>3. Engage households and develop SWM action plan including a reasonable fee collection mechanism</li> </ol>	  		
2. Set up collection	<ol style="list-style-type: none"> <li>1. Train the collector</li> <li>2. Segregate household waste at source</li> <li>3. Dispose of remaining waste properly</li> <li>4. Move from informal to community collection</li> </ol>	   	 	
3. Actions on waste reduction	<ol style="list-style-type: none"> <li>1. Reduce plastic use</li> <li>2. Repurpose food waste to animal feed</li> <li>3. Use green and brown waste for composting</li> </ol>		 	
4. Community awareness	<ol style="list-style-type: none"> <li>1. Raise awareness among children</li> <li>2. Incentivise cleanup campaign</li> </ol>			
5. Monitoring and ensuring sustainability	<ol style="list-style-type: none"> <li>1. Regular monitoring by the community leaders/ monitoring committee members. They will monitor while encouraging waste segregation at the source and ensuring proper waste collection, disposal, and waste collectors.</li> </ol>			

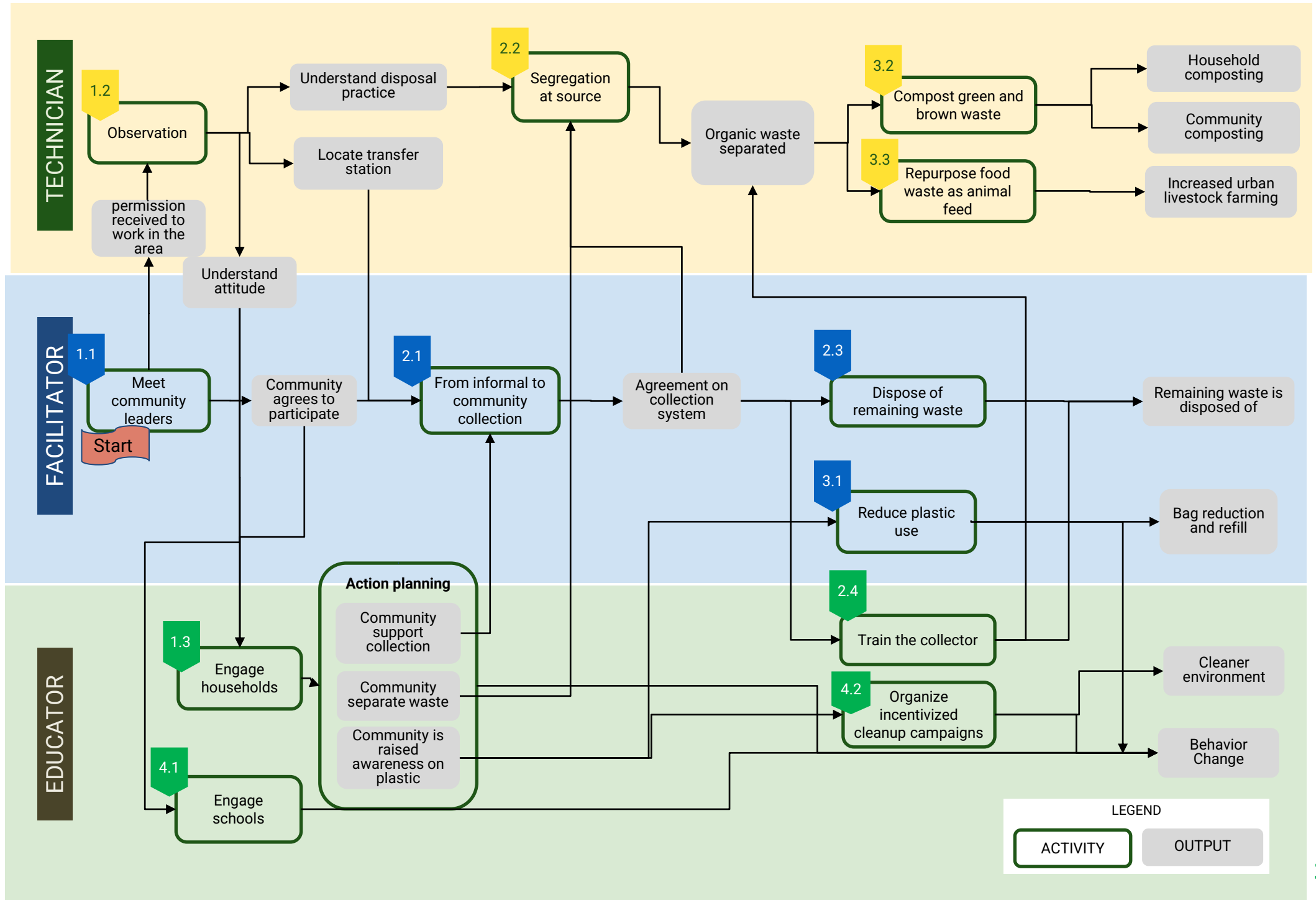
# II-7. Field budget requirements

No.	ACTIVITY	MATERIAL NEEDED	COST
2.1	From informal to community collection	Waste cart, PPE, etc.	500 USD
		Fees for initial startup	500 USD
3.2	Households and community compost	Material + incentives for set up	500 USD
	BYO campaign	Material or incentive to reduce plastic usage	300 USD
4.2	Organize incentivized cleanup campaigns	Buy waste	300 -500 USD

g = 30,000

$$200 \text{ m}^2 \text{ PPG} = 30,000 - 25,420 = 4,580 /$$

# II-8. Detailed roles, activities and outputs



# 1.1

## Step 1 - Activity 1 (Meet community leaders)

**Your Role**  
**Facilitator**

### Purpose

Seek an agreement to set up community waste management system

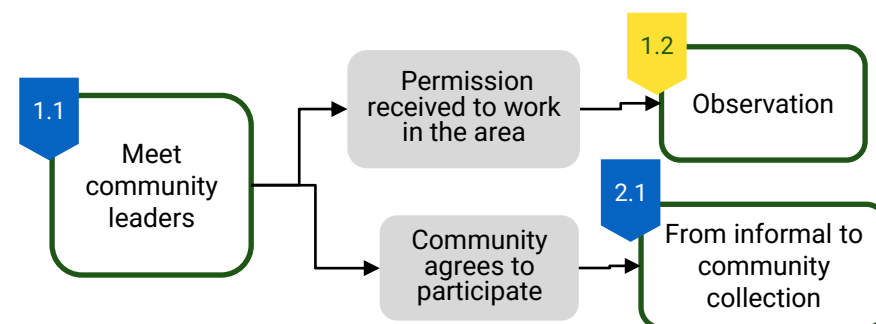
**Time Needed**

**2 hours**

### What to do?

- Introduce the team and the reason for your visit
- Ask briefly how they manage their waste
- Listen to their challenges with waste and their experience
- Plan for implementation, timeline
- Ask any suggestion and get their agreement
- Discuss the outcomes you need from their sides

### Activity outcome tree



### Tips :

- Be aware in advance of what contribution your organization can provide and what the community will get
- Include main official stakeholders right from the start (e.g.: Local Administration, Municipality, etc.)
- Request for the freedom to pilot and test if there is skepticism on your proposal from their side

### Challenges :

- Conflict with municipal rules
- Community Leader has limited influence on the community
- Frictions between community leaders and members
- Limited interest in or has no concern about environmental pollution
- Being skeptical about the success of the intervention

### Stakeholders

Township Administration, Local authorities, municipality, Community leaders

### Place of activity

Local authority office / community space (e.g. preaching hall)

### Materials

Prepare information about your organization and the project vision, objectives and activities

# 1.2

## Step 1 - Activity 2 (Observation)

**Your Role**  
**Technician**

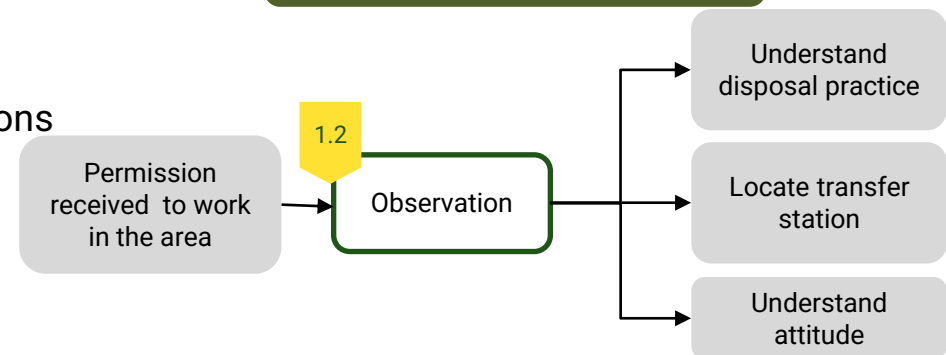
**Purpose**  
**Understand the waste flow in the area**

**Time Needed**  
**2 hours**

### What to do?

- Examine existing formal and informal waste infrastructure
- Check local dust bins, dump sites, creeks, drainages, transfer stations
- Assess possible places for waste management infrastructure
- Speak with households, businesses, waste collectors

### Activity outcome tree



### Tips :

- Be curious during the implementation and ask the community until you understand current waste situation and its disposal practice.
- Ask main waste managers in the community such as housewives, shop owners to understand the waste flow.
- Take steps to understand how they manage organic waste and food waste.

### Challenges :

- Urban systems can be quite complex, with a lot of activities happening which requires in depth observation
- Answers from the community often reflect what they should do rather than what they actually do.

### Stakeholders

Households, shops, waste collectors, recyclers

### Place of activity

Formal collection infrastructure, creeks, drainages, local dumpsites, backyards

### Materials

Camera, notebook, questions for stakeholders, Knowledge, Attitude and Practice (KAP) survey ([link](#))

# 1.3

## Step 1 - Activity 3 (Engage households)

**Your Role**  
Educator

### Purpose

Community is aware of challenges and seek solutions

**Time Needed**  
1 hour in multiple session

### What to do?

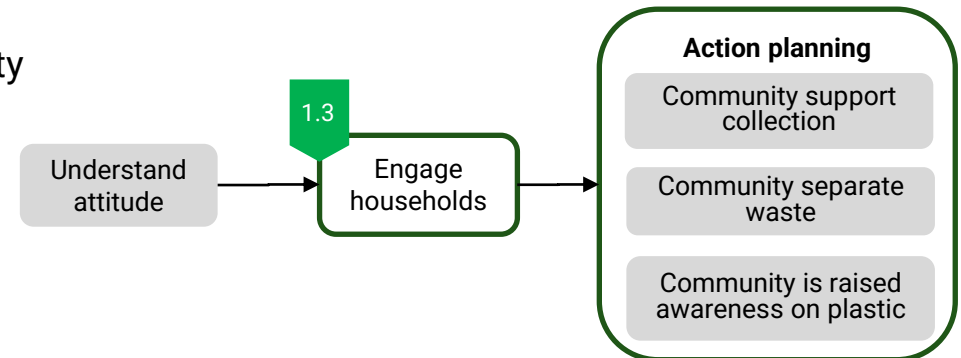
Awareness-raising with household members. (see next slides)

- Waste segregation game
- Introduce: collector, plastic campaign shops etc. to the community

Action agreement:

- Segregation at source
- household composting
- “Bring your own (BYO)” promotion
- Payment to collector

### Activity outcome tree



### Tips :

- Use pop up format: make the training on roadside in the community while inviting attendees ad-hoc.
- Involve the collector and bring your own shops in the training and give them space to talk
- Play waste segregation game using real waste from the neighborhood
- Link participation with access to project incentives to encourage people to join
- Educate households to do composting

### Challenges :

- Gathering community members
- Segregating waste at source (May need to show them time and again how to separate waste)
- Facilitating between households and collector
- Finding a waste collector who can work long-term

### Stakeholders

Community members

### Place of activity

Roadside

### Materials

IEC materials ([Link](#))

အိပ် တုတ်၊ ခွန်ပစ် အပျိုက် စီမံ ခန့်ခွဲမှု  
သင်တန်း



Time : 5 min  
Ice breaking : use some common  
Ice-breaking activities to make the  
participants laugh and be more  
active.





# အမှိုက်ခိုတာ ဘာလဲ

အမှိုက် ဆိုသည်မှာ ဖြန့်လှုပ်အသုံးပြု၍ မရသော၊ အသုံးမဝင်သော အရာများကို ဆိုလိုသည်။

Time : 3 min  
 Before showing answer : Ask them how they define waste?  
 Aim: waste is not all the same for everyone

## .အိမ်တိုင်းမှာ ရှေ့ဆုံး ထွက်ရှိနေသော အမှိုက်များ

Time: 8 min:  
 Before showing answers:  
 Ask:  
 - The common types of waste they know?  
 - Explain the types of waste and what is the further use of this waste?  
 - What can be done with organic, paper, metal and glass waste?  
 - Link with composting for organic waste.  
 Aim: only plastic has no further use and therefore becomes the main polluter (except for certain types which can be recycled)



စား ကြွင်း စားထုန်များ



မီးဖိုချောင်ထွက် အမှိုက်များ



မြဲထွက် အမှိုက်များ



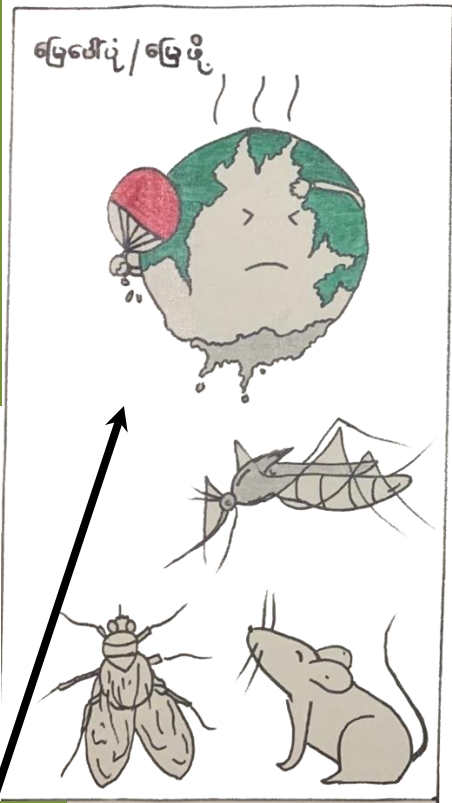
ပလတ်စတစ် အမှိုက်များ  
 (မာလေး၊ သံသတ္တု၊ အိတ်၊ နှင့် အခြား အမှိုက်များ)

Time : 3 min

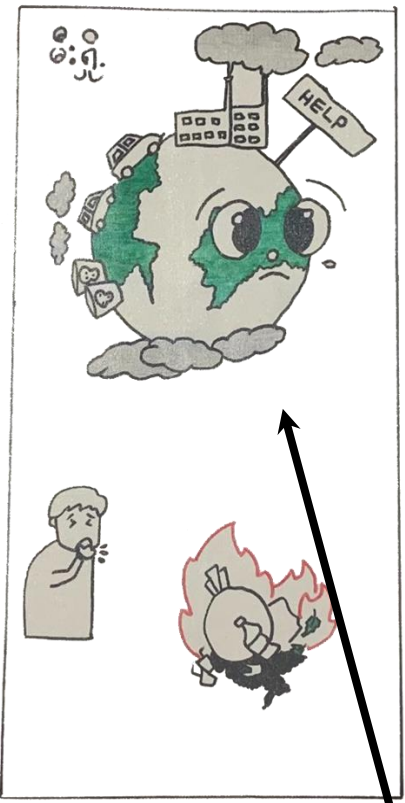
Before showing answer  
: Ask them how they define waste?

Aim: waste does not mean the same for everyone

စွန့်ပစ်အပိုက် စီမံခန့်ခွဲမှု



**Explain:**  
Impacts of open dumping by linking with pests, general pollution, etc.



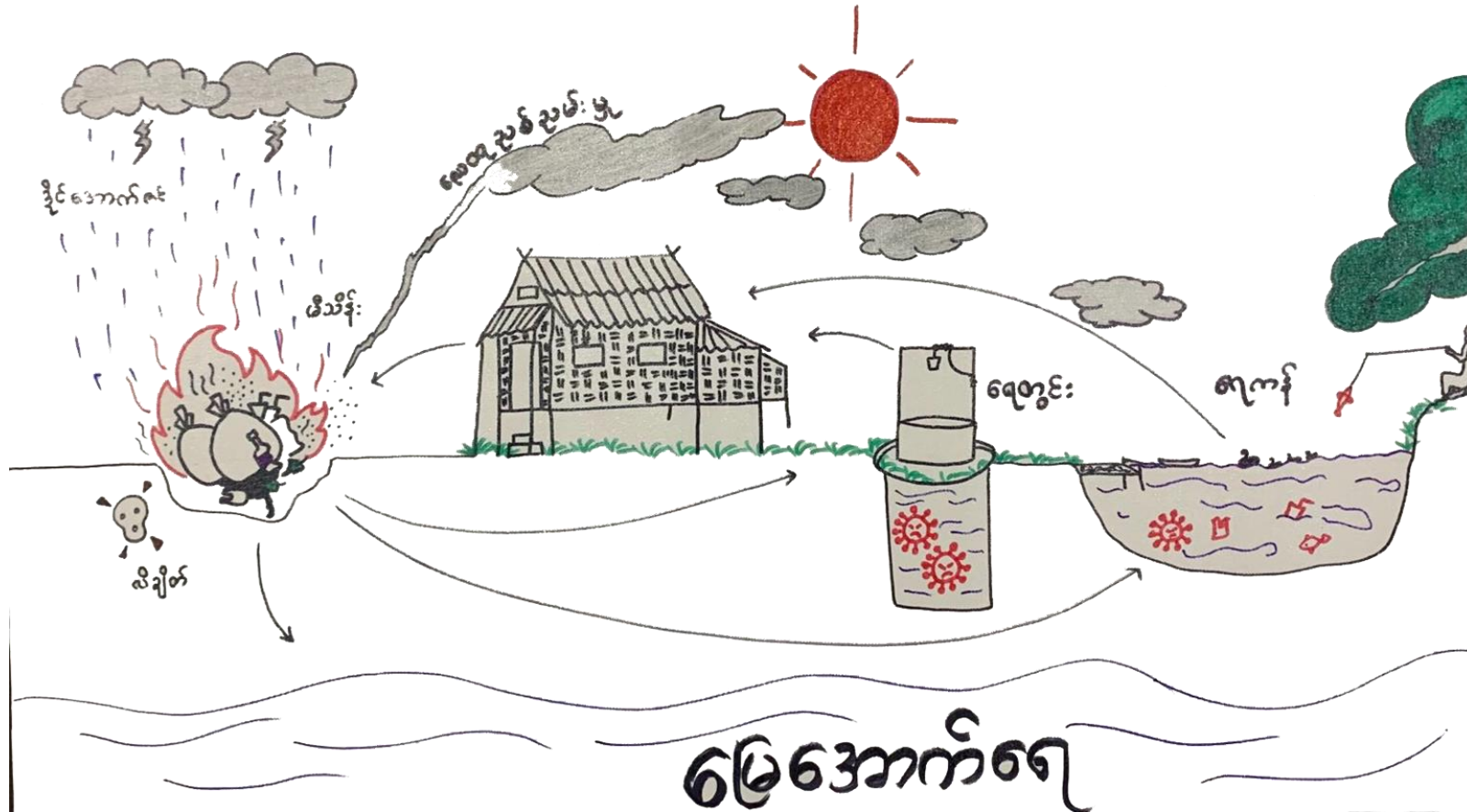
**Explain:**  
Impacts of open burning on health. Highlight how oxygen and clean air quality are crucial for human beings.



**Ask:**  
Do you eat your plastic waste?  
Link plastic with the food chain and that we do eat around 5g of plastic per week

**At the end of this slides:**  
link all the impacts with next generations on health and well-being. Stimulate their emotions.

# ပလတ်စတစ်၏ အန္တရာယ် ကွင်းဆက်

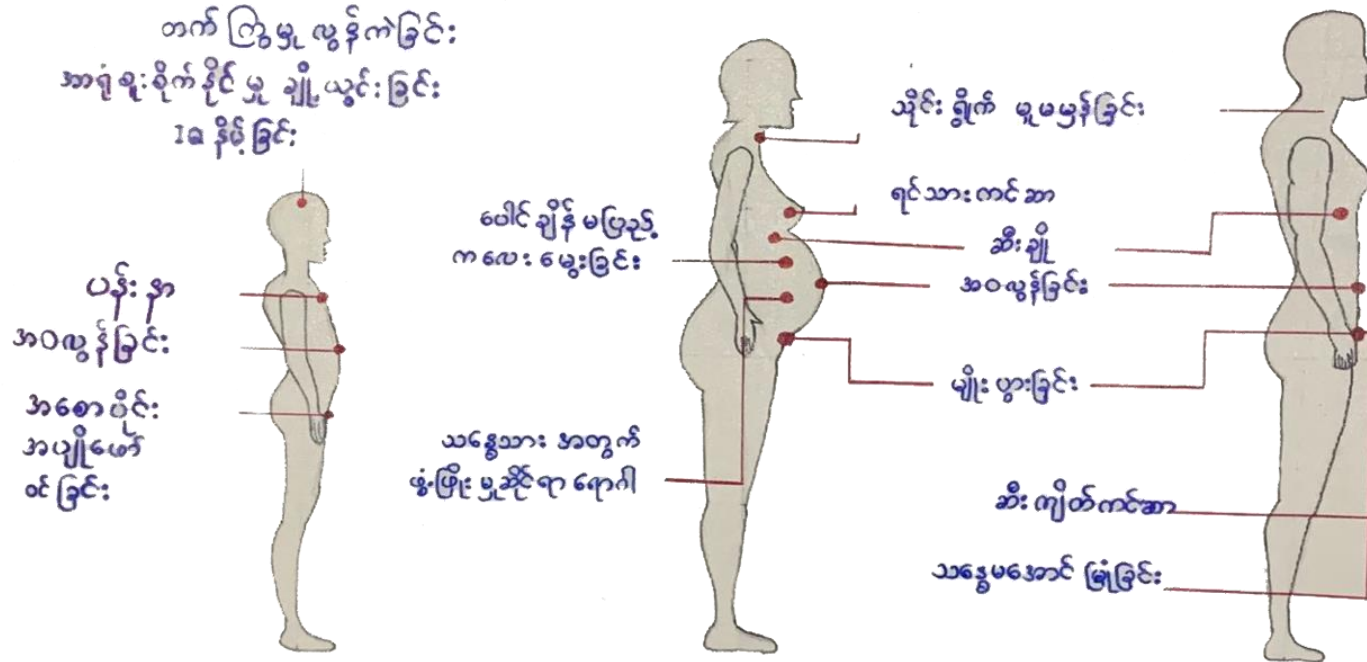


## Explain:

Movement of microplastics and toxic chemicals released into air, water and soil which enter from there again into the human body.

Aim: People come to realize that plastic is toxic, and what they do has a negative effect on them.

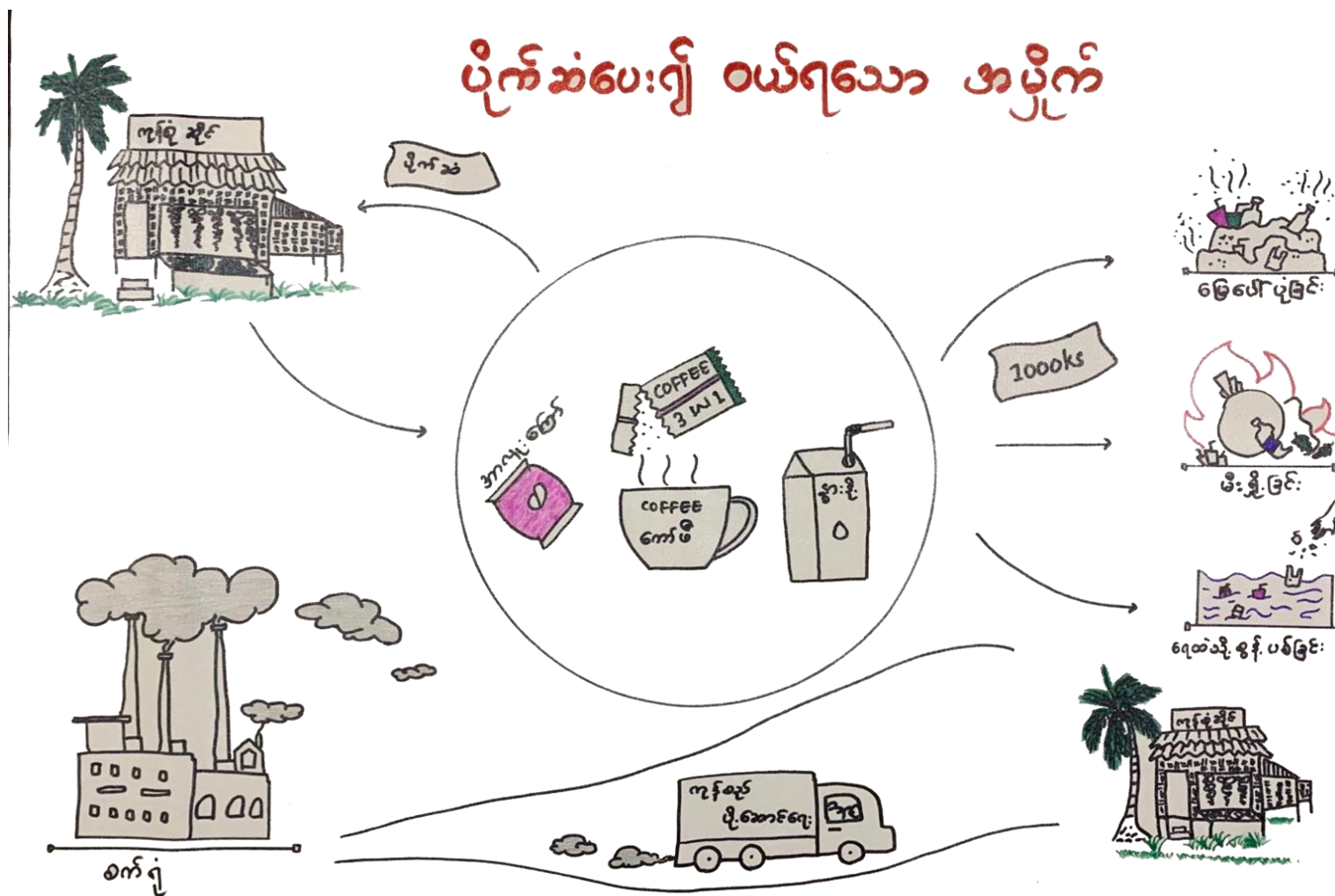
# ပလတ်စတစ်နှင့် ကျန်းမာရေးအကျိုးဆက်များ



- ရှူမိခြင်း
- မျိုချမိခြင်း
- အရေပြားနှင့် ထိခြင်း

## Explain

- Ask:**
- Types of common sicknesses and discuss if they are related to toxic chemicals.
  - Explain the impact of plastics and toxic chemicals on the human body.
  - Common effects triggered are: Being harmful to reproductive health and can lead to cancer.



**Explain:** People often get cheated by shiny products but with poor value content. The money they pay for these products finally become their burden in having to pay for the cost of the package. All the money they pay is not for their own benefit but is for the sake of large brand owners.

**Aim:** Appraise consumption behavior and support local production.

**Action Planning:** A action plan can be a useful tool to reach higher ownership by stakeholders and to clarify responsibilities. The tool can be used either directly after awareness sessions together with participants or after basic actions are in place and to discuss method of sustaining the actions.

# Sample Action Plan

ITEM	ACTION	RESPONSIBLE PERSON	TIMELINE	FUNDS
Collection system	Self Dropping System/ Collection points system/Door to Door Collection System	Who will collect waste?	Schedule for collection	Estimated funds needed
Vehicle	Rent/ buy: waste cart/ Sidecar on a motorcycle/ 3 Wheelers	Who will buy/ rent the vehicle?	When to buy/rent?	Cost for vehicle: rent /buy?
Segregation	Educate households; household or community makes compost/ livestock farming	Who will participate	When to do?	Incentive for participation
Fee collection	monthly/pay as you drop	Who collects fees?	When?	Highest fee?
Plastic reduction	Present reduction activities	Introduce participating shops		

# 2.1

## Step 2 - Activity 1

(From informal to community collection)

**Your Role**  
**Facilitator**

### Purpose

Integrate informal waste collectors into the aspiration of a well functioning community collection system

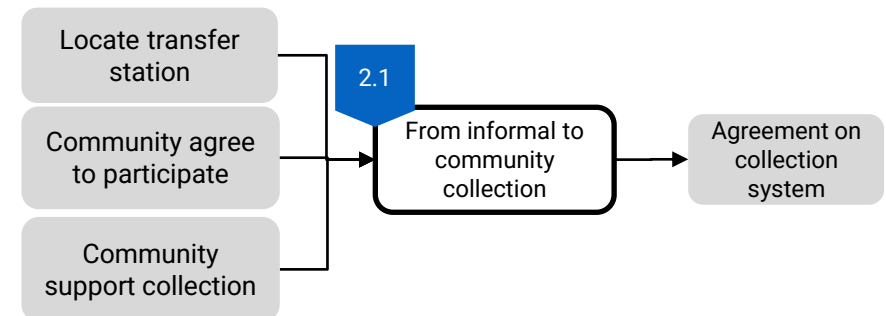
**Time Needed**

**1 week**

### what to do?

- Reach out to existing informal waste workers to find someone willing to work as a community waste collector (about 500 households per round)
- With the collector you have to agree on:
  - mechanism to collect waste separately (see 2.4)
  - place of disposal for remaining waste (see.2.3)
  - payment
  - possible incentives you can provide: pushcart, megaphone, vest

### Activity outcome tree



### Tips :

- Create a sustainable collection structure requires that the collector has prior experience in waste management
- Talk with several informal collectors to find a suitable collector

### Challenges :

Often community leaders wish not to rely on existing informal collectors but want to employ a community member for the task. Please reason that experience is required to ensure long term sustainability.

### Stakeholders

Informal collectors

### Place of activity

-Roadside/community space (preaching hall)

### Materials

The collector would need:

- vehicle (waste cart, trishaw, etc.)
- megaphone to publicly announce waste collection
- PPE (gloves, hat, raincoat)
- Uniform/vest if requested

# 2.2

## Step 2 - Activity 2 (Segregation at source)

**Your Role**  
**Technician**

### Purpose

Organic waste is treated at source and makes remaining waste collection more efficient

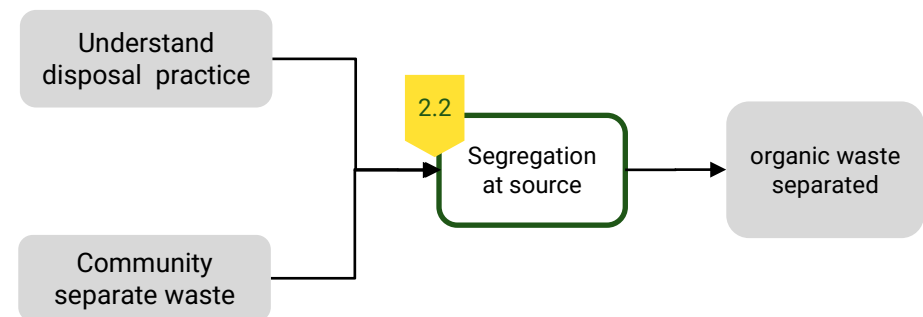
**Time Needed**

**2 weeks**

### What to do?

- With the support of community leaders build compost units which can be accessed by the community and collectors alike and which are maintained by the collectors
- Incentivize households to build small 2' x 2' compost units close to their house and have them all organic material disposed of there
- Promote and support urban farming: pigs, ducks and fish

### Activity outcome tree



### Tips :

When the project is more than 5 months long, a financial incentive to make compost can be created through buying compost from the household or waste collector. This would stimulate more participation over a long time, increasing the chance for bringing about behavior change.

### Challenges :

- Food waste should not be added in large amounts into the composters
- Urban livestock farming is often considered smelly and not accepted by the community

### Stakeholders

Informal collectors

### Place of activity

-Roadside/community space (preaching hall)

### Materials

The composter:

- bamboo or wood poles
- fishing net, wire mesh, etc.



# 2.3

## Step 2 - Activity 3 (Dispose remaining waste)

**Your Role**  
**Facilitator**

### Purpose

Transfer of waste to the formal municipal collection system

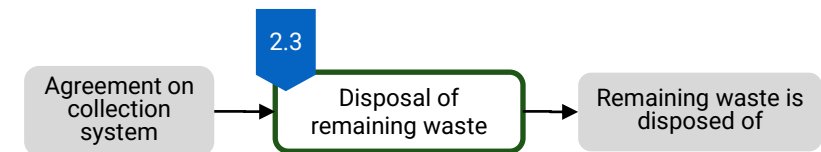
**Time Needed**

**2 weeks**

### What to do?

- Together with the local authorities (municipality, local administration) discuss the terms of disposing of the waste. These can be:
  - license or monthly fees paid by the collector or secondary collection (if households do not pay official waste tax)
  - define the collection points/transfer point
  - agree among all stakeholders for the fees to be paid by households for waste collection. This can be done following the initial stage of the project

### Activity outcome tree



### Tips :

- Create a triple win situation between municipality, community and collector that guarantees the most long-lasting agreement
- Make sure the waste cart fits the local condition and is built to last, since its breakdown can lead to a full collapse of waste collection system
- Make sure that your collector separates recyclables and organic material while collecting
- Make always available a community compost pile which can be used/maintained by the collector.

### Challenges :

- Without formal recognition by the municipality, it poses a challenge to integrate community collection into the larger system
- Contamination of the remaining waste with organic material will be an ongoing challenge and households have to be reminded about it continuously
- Fees to be paid out by households for waste collection may vary depending upon their volume and the distance to the transfer station.

### Stakeholders

Informal collectors

### Place of activity

Local authority office, transfer station

### Materials

- Transfer station available which can be utilized by the collector
- Waste cart for the collector

# Recommended specifications of waste cart



Front view



Back tires and angle bar

## Recommended specifications

**Paint:** primer (1<sup>st</sup> layer ) and rust-proof paint (2<sup>nd</sup> layer)

**Height:** maximum 2 ft

**Front:** Flat iron sheet (recommended) and Iron mesh (optional)

**Tires:** Alloy Rim Diameter (16 inches)

**Angle bar:** Thickness (3 mm)



Front tire



Bottom view

# 2.4

## Step 2 - Activity 4 (Train the collector)

**Your Role**  
**Technician**

### Purpose

The collector can handle all SWM activities

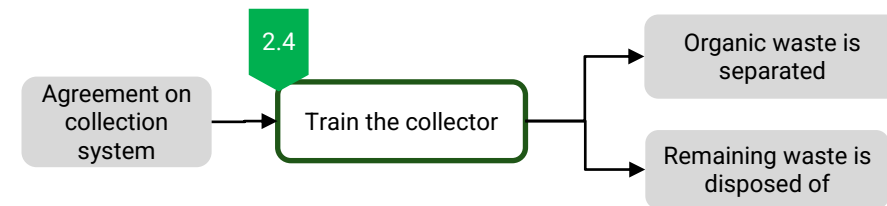
### Time Needed

2 weeks

### What to do?

- Lay out the collection route together with the collector
- Set the collection days (a household should get serviced 2 times per week)
- Introduce the collector to the households and show them again (a number of times if required) how to separate waste
- Show the collector how to place different waste collected separately on his/her waste cart
- Dispose of organic waste and maintain the community composter

### Activity outcome tree



### Tips :

- Make sure that your training method is fully hands on and very practical
- Remember that the collector has minimal influence on the households to change their behavior due to their social status. So, you introduce the collector to the community and are responsible for the behavior change of the community.

### Challenges :

- Informal collectors may not live in a place for a long time. This factor has an impact on their work
- Negotiations between the collectors and municipality remain complicated. You shall negotiate for the informal collection to become part of community SWM.

### Stakeholders

Informal collectors

### Place of activity

Target community

### Materials

see 2.1

# 3.1

## Step 3 - Activity 1 (Reduce plastic use)

**Your Role**  
**Facilitator**

### Purpose

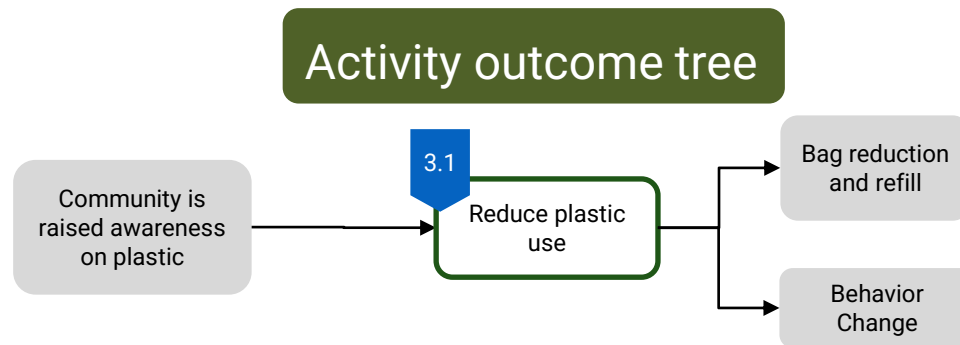
Build a campaign around plastic reduction and reuse

### Time Needed

2 - 6 months

### What to do?

- Discuss with local shops on their willingness to participate in plastic reduction
  - Plastic bag reduction through an inverse plastic bag fee
  - Refill: Betel nut, Shampoo etc.



### Tips :

- Use an incentive structure to promote sustainable consumption so that the campaign can be very effective if you have funds available. Make sure that next to plastic reduction you also promote consumption behavior that use locally available products in packaging such as banana leaves and old newspaper and forms of refill.
- Focus on incentivizing method which is easiest to lead to a system change
- Rely less on packaging and carry products in a container

### Challenges :

- This method might be new to the project team and to participating shops resulting in many uncertainties:
- Controlling / Keeping records of the number of incentives provided by the shop?
- Motivating the shops so that they become the “agent of change”?

### Stakeholders

Shops

### Place of activity

Shops in target area

### Materials

- Bag reduction ([Link](#))

## Before campaign



## After campaign



Shop owners are the key to a sustainable campaign. Even after the campaign period, they will keep encouraging people to reduce plastic if they understand how much money they can save during the campaign.

Shop sells shampoo pumped from the big container to smaller ones.  
Betel shop sells with container for first time.



# Refill



Customers bring their own containers

# 3.2

## Step 3 - Activity 2 (Compost green and brown waste)

**Your Role**  
**Technician**

### Purpose

Organic waste is treated at source by households or community collector

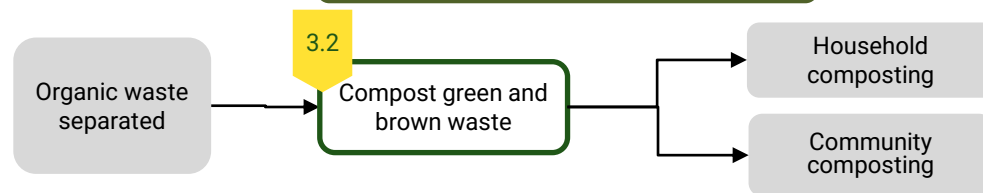
### Time Needed

At least 6 months

### What to do?

- Together with community leaders find vacant land for community compost (design next slide) which is maintained by the collector
- Household composting can be facilitated through training of those who are interested or through an incentive scheme where they get paid for set up and initial usage

### Activity outcome tree



### Tips :

- Community compost:
  - Show the surrounding households how to use it and invite them for usage. This decrease the risk of non-acceptance by individual households or pollution
- Household compost:
  - Consider to buy compost made by households as an incentive for them. Experiment with use of different materials for composter for control and maintenance

### Challenges :

- Some households continuously do not well distinguish between plastic and organic waste, keeping the compost pile polluted posts a constant challenge;
- The time it takes for the community to accept compost making is around 6 months as only then they can see the benefits of it.

### Stakeholders

Collector and households

### Place of activity

Pilot Areas

### Materials

Depending on used structure:

- iron mesh
- fishing net
- bamboo mesh

## WHAT TO COMPOST

### Materials for compost

#### Brown

Dry leaves / Branches

Paper / Cardboard

Saw dust / Egg shell

#### Green

Vegetable cut

Kitchen waste

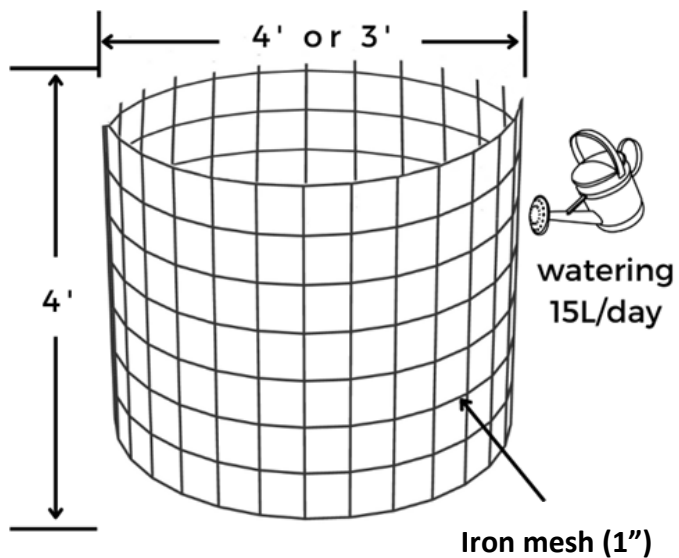
Flowers / Grass

## UNDER CERTAIN CONDITIONS

Cooked food  
Sour organic  
chillies, fats and grease

## WHAT NOT TO COMPOST

Inorganic waste

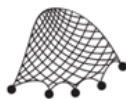


Compost Pile

### materials



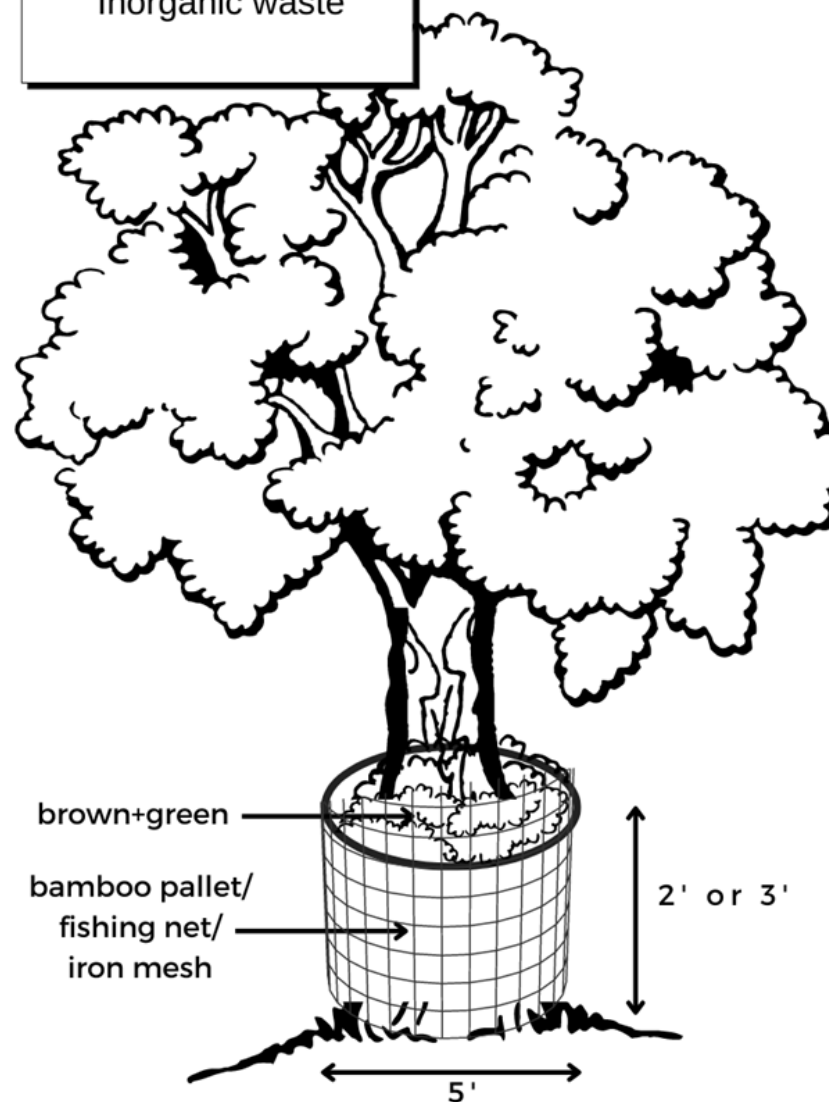
iron mesh



fish net



bamboo mesh



Duration(3 - 6 months)



# Pictures from makeshift composters



# 3.3

## Step 3 - Activity 3 (Repurpose food waste as animal feed)

**Your Role**  
**Technician**

### Purpose

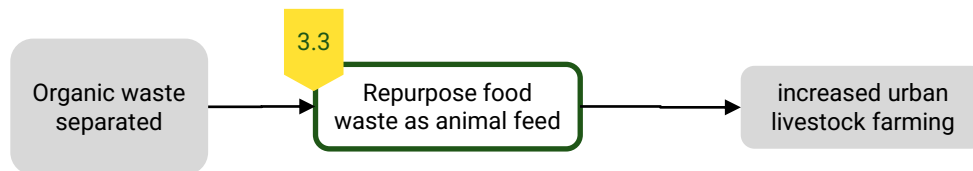
Reduce food waste (around 50% of total waste) from the waste stream and re-utilize it as animal feed.

**Time Needed**  
**2 months**

### what to do?

- Pet feeding (dogs, cats, chicken, etc)
- Neighborhood pig raising
- Duck raising
- Fish farming

### Activity outcome tree



### Stakeholders

Livestock farmers  
Household

### Place of activity

-

### Materials

-

### Tips :

- Right place: make sure that the surrounding community agrees with what you do.
- Right people: often community members have experience in animal raising, work with them;
- Community benefit: find an existing mechanism in a community.
- Make sure they are using food waste as feedstock and that households know which waste they can feed to a specific animal.

### Challenges :

- Smell: animals are often rejected by urban communities.
- Death or injury of the animal is very common and a constant risk.
- Young animals might need additional food or vaccine.

Animal	Pig	Duck	Fish	Remark
Animal Cost (MMK)	150,000/animal (45-60 days old)	Baby duck = 1,200Small duck (20 day old) = 2,200Adult (Start laying eggs) = 6,000 – 7,000Egged one time = 4,000	2 inches size = 353 inches size = 55 4 inches size =60if 3000= 180000	Costs also depend on age and species of animal
Number of animals required to make a living for a family	3 to 4 pigs	100 ducks	3000 fish	Depend on family size Depend on the place
Yearly Income (MMK)	Female pig = 1,500,000 – 2,000,000 (depend on number of baby pigs born in one time)Male pig = 450,000	588,000 Based on 100 ducks70% of them can produce eggs per dayThey can egg 8-9 months per year1 egg = 280 MMK	3 months 1 time can sell After 3 months, the average weight of each fish is 0.6 viss(0.25 -0.9 visses)In 3000 fish , average 2400 fish will left3 months 2400fish( 1 viss for 3500) =2664000 mmk	Female pig can breed two times per year and can grow up to 5-6 yearsMale pig can get only one time benefitEgg production rate of a duck depends on kind of food we feed.
Infrastructure needed	Yes	Yes	yes	
Infrastructure cost (MMK)	Brick and concrete = 500,000 – 600,000Bamboo = 150,000 – 200,000	Bamboo = 250,000 – 300,000For 100 ducks	2- 10 feet round tank( for 3000 fishes)500000-700000	Depend on kind of material we use and number of animals we raiseFish farming - depending on the place that we have (dig a hole in the ground or on the ground with rain cover tank)
Eats Food waste	Yes	Yes	yes	In the early month, must feed cp food
Potential food waste for feeding	All food waste (rice, meat, vegetables, fish waste) (except pork)	Clean rice, some vegetables and fish waste	All food waste (rice, meat, vegetables, fish waste) If fish farming on the ground with a rain cover tank,the food cannot be oily food waste.	Food waste only is not enough for ducks and they need industrial specialized food for producing eggs.Pigs need CP food only when they were young
Amount of food waste eaten (kg/animal/day)	26kg/animal/day(with liquid)	19kg/100/day(wet food)	don't know yet5"to 6" inches fish (3000)can eat 24 cups o rice per day.	
Additional Care	Vaccination = 4,500 MMK/ pig (three vaccines)CP food = 90,000 MMK/ pig/month (need to feed 3 months)Need special male pig for insemination with female pig	Vaccine = 8,000 MMK/100 duckMedication = 10,000 [JF3] (every month)Industrial food supplement = 190,000MMK/100/month [JF4]	Cp food(9102) = 50000folic acid=16500potassium =9500(15days 1 time)	Without CP food, ducks cannot produce eggsThe fish need CP food exactly one month from the starting time raising them. Once they are 5" to 6" in size, can start feeding them any food waste.
Risk	Pig needs more investment than duck	- Ducks can die easily for several reasons- Need CP food all the time-Need systematic feeding method	If 1000 of fish are raised, only about 750 can be left( jump and run away ,eating each other)Due to the imbalance of heat, it can catch fungal diseases and die.	Ducks no need male duck for egg Male duck is only needed when we want to use the egg for breeding

# Example photos of pig, fish and poultry farms

Pig farm



Fish farm



Duck farm



# 4.1

## Step 4 - Activity 1 (Engage schools)

**Your Role**  
**Educator**

### Purpose

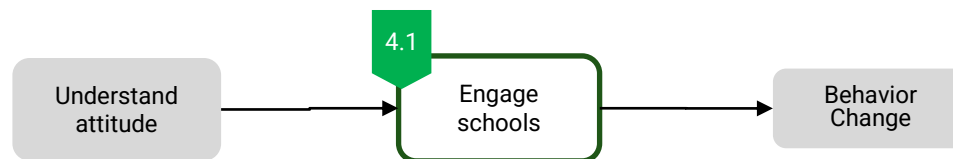
Students have a better understanding of the fragile environment and learn actions to preserve it.

**Time Needed**  
**2 -3 hours**

### What to do?

- Raising awareness of students according to their age.
- Teaching with dance, song, games and poems relating to waste.
  - Reading stories related to waste and environmental pollution
  - Play waste segregation game using postcard
  - clean up activity

### Activity outcome tree



### Tips :

- Make the activities as engaging as possible
- Use popup format: make the training on the roadside for children without formal education/school dropouts.
- Separate the groups according to their age and/or education level *[Be sensitive in asking children's level of education]*
- Conduct waste segregation games (depending on the time available)
- The methodology of composting in the school compound and its benefits (depending on the time available)
- Need to give instructions when we do cleanup activity

### Challenges :

- Extracurricular - activities are low priority for teachers
- Gathering children who do not attend formal education
- Time for primary level, they can't focus on our talking for a long-time (should not exceed 1 hour)

### Stakeholders

Students

### Place of activity

School, roadside

### Materials

[Link](#)

# 4.2

## Step 4 – Activity 2 (Organize incentivised cleanup campaigns)

**Your Role**  
Educator

### Purpose

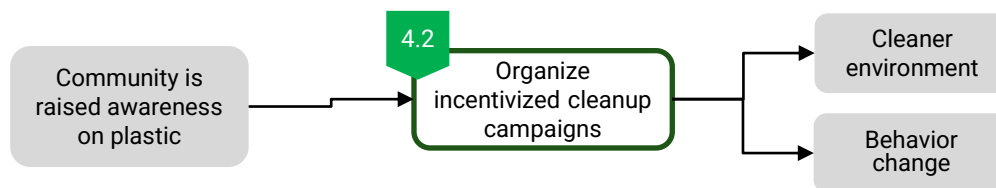
Community involves to a large degree in creating a cleaner environment

**Time Needed**  
1 day

### What to do?

- Announce in the community that you will buy plastic waste collected from the environment on one specific day (100MMK/viss)
- On the cleanup day set up multiple (2 or 3) places where you receive waste, can weigh it and pay the person
- Coordinate with the municipality for collecting waste

### Activity outcome tree



### Tips :

- Make sure that the community understands that you collect only plastic waste.
- Communicate clearly that the reason for this activity is exactly because plastic has no resale value, pollutes the environment and needs support to be collected.
- Depending on the amount you pay for waste, you might be able to collect up to 10 tons of cleaned up waste in a single day. This could be up to 8 trucks full of waste.
- Check the bags while weighing so that no organic material is disposed of.
- Empty the polypropylene bags into the truck and give the bags back to the community to collect more plastic cleaned-up

### Challenges :

- Clearly communicate that the reason you buy the plastic waste is to help them in the cleanup and that there is no additional value derived from the plastic, otherwise the community might think that their waste has some further value. This thinking would greatly undermine your efforts of asking them to participate in reduction as well as paying for waste collection.

### Stakeholders

Full Community

### Place of activity

All target areas

### Materials

- scales (up to 30kg)
- PP bags (200 or more)
- Cash (bring change)

# 4.3

## Step 4 - Activity 3 and 4 (Monitoring)

### Your Role

Educator

### Purpose

Community is changing its behavior and infrastructure is in use making the system finally sustainable and community owned

### Time Needed

3 - 6 months

### What to do?

- Source segregation:
  - Frequently visit the shop and discuss their challenges and ways to improve
- Plastic Reduction:
  - monitor the compost piles and clean them together with the collector/household
- Waste collection:
  - Go along with the collector on a regular basis.
  - Encourage households to segregate and dispose of waste with the collector

### Tips :

- Be present in the target area frequently to deepen the relation and increase the trust the community has in you.
- Adopt activities according to circumstances
- Understand that some actions that you planned may not be well received and consider to drop them.

### Challenges :

- Time: Behavior change is a time intensive work, and the success of the activity depends strongly on how long you can be actively present there;
- Hierarchical interaction: on one side you have to encourage and push for the community to become active and understand the reason for the actions on the other side it is them who finally need to take ownership of them

### Stakeholders

Full community

### Place of activity

All target areas

### Materials

none

# 4.4

## Step 4 – Activity 5 (Develop SWM action plan)

### Your Role

Educator

### Purpose

To develop a SWM Action Plan to ensure sustainability of the practice when the community has realized the benefits of proper waste management

### Time Needed

3 - 6 months

### What to do?

- Organising a mass meeting to discuss the development of SWM action plan
  - Meet with local leaders and elders and community members and develop an SWM action plan with involvement of key stakeholders
- Review of the work done, challenges met and how they were overcome
  - Explain the components of SWM, their benefits and the requirement for development of an action plan for this undertaking to sustain
- Development of an action plan
  - Devise on components of an action plan (Activities, their frequency, equipment needed and dos and don'ts regarding SWM)
  - Decide who do what (YCDC, community leaders/elders, waste collectors, service users and community members)
  - Set waste collection fee for waste collectors to earn enough and be affordable to service users
  - Incorporate complaint lodge / grievance response mechanism
  - SWM committee shall be formed to monitor the work

### Tips :

- Be sure to involve local leaders/elders, community volunteers and waste collectors in the development of an action plan
- Commitment from the township municipalities is required to collect waste regularly from nearest transfer points
- Collection fees acceptable to all parties concerned is the key to success

### Challenges :

- Some people who live far from YCDC transfer points and generate more volume of waste may be reluctant to pay higher fees
- It could happen that waste collectors don't make regular rounds as required, SWM committee shall intervene in this situation
- Household waste segregation may pose a challenge

### Stakeholders

Full community

### Place of activity

All target areas

### Materials

none



