



Chapter 6: Environment

6.7 Waste Management

Example of types of waste on a farm

Organic waste:

- Crop residue, such as stalks, coffee pulp, dropped fruits, or cocoa pods
- Food leftovers and waste from the kitchen, if there are houses on the farm
- Paper

Inorganic waste:

- Plastic waste, and metal waste
- Empty agrochemical containers
- Empty fertilizer bags

How are you currently managing all these different types of waste?



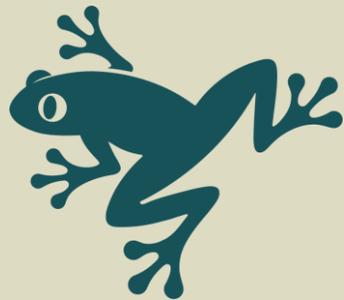
What happens if waste is left exposed on the land?

- Waste attracts disease-carrying flies and insects
- Flies multiply quickly and can transmit over 65 diseases, including **typhoid**, **cholera**, **polio**, and **tuberculosis**
- Empty chemical containers can contaminate the environment and cause illness if reused
- Decomposing waste contributes to soil, air, and water pollution
- Accumulated waste attracts and promotes the growth of crop pests and diseases risk



6.7 Waste Management

No.	Base requirements	Group certification			Ind. cert.
		S-farms	L-farms	Group mgt.	S/L
6.7.1	Waste is managed to avoid health and safety <u>risks</u> . It is stored and disposed of only in designated areas, not in natural ecosystems. Non-organic waste is not left on land.	✓	✓	✓	✓
6.7.2	Producers do not burn <u>waste</u> , except in incinerators technically designed for the specific type of waste.	✓	✓		✓



Read the requirements and their applicability before you move on to the next page

6.7.1

Waste is managed to avoid health and safety risks

- Waste is stored and disposed of in designated areas, not in natural ecosystems.
- Non-organic waste should not be left on the land.
- Waste on the farm can contain water, creating breeding grounds for mosquitoes
- Mosquitoes carry diseases like malaria, dengue, yellow fever, and zika



Poor waste management increases the risk of potentially fatal diseases.



6.7.1

Do not throw waste into waterbodies

- Waste in rivers and lakes **contaminates water** and harms wildlife like birds and fish
- Animals mistakenly eat plastics and metals, thinking they are food
- Many birds die each year from ingesting plastics and metals



Your waste should not contribute to these tragic outcomes.

What should we do with our waste?

- **Collect** and **separate** waste based on waste type
- Use **appropriately sized waste bins** for factories or big farms
- Small farms can use **color-coded sacks** or **boxes**
- Separation categories depend on available disposal options



6.7.2

Producers do not burn waste

- Burning waste in the open air emits **toxic fumes** harmful to health
- **Dioxin**, a highly toxic substance, is produced by burning waste
- Dioxin causes reproductive and developmental issues, immune system damage, hormone interference, and cancer
- Burning is only allowed in incinerators when they are technically designed for the specific waste type

Burning waste on the farm leads to various illnesses.



No.	Continuous improvement requirement				
6.7.3	Producers segregate and recycle waste based on available waste management, recycling, and disposal options. Organic waste is composted, processed for use as organic or used as input for other processes. Not applicable to small farms in groups.		✓	✓	✓



Read the requirement and its applicability before you move on to the next page

6.7.3

Producers segregate and recycle waste based on available options

- Plastics, metals, glass, and paper can be recycled if a system is available
- **Some waste can also be reused**
- Safe waste like clean plastic and metal can be used for creative projects such as decorations, waste bins, insect traps
- **Organic waste can be converted into energy or fertilizers** (coffee husk as fuel for drying machines)
- Other organic waste can be turned into compost
- **Composting** crop residue and kitchen waste creates **rich organic fertilizer**, which reduces waste and lowers the cost of chemical fertilizers

This is a continuous improvement requirement which becomes applicable during the second certification cycle.



Recycling: case example

A group of small coffee farms in Sumatra, Indonesia, **collects waste from members** and **sells it to a recycling company**.

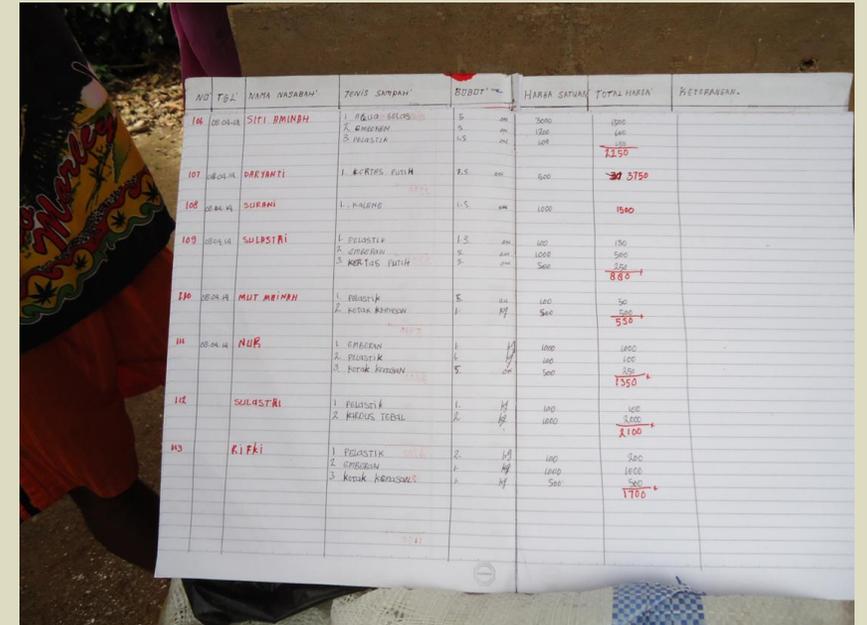
They created a **"bank for waste"** system.

Waste is segregated by type, weighed, and valued based on recycling company prices.

The value is recorded in the member's bankbook for waste.

Members can accumulate **credits** and withdraw **cash** when they have enough balance.

This system incentivizes members to collect and bring waste to the group.



ID	TGL	NAMA NASABAH	JENIS SAMPAH	BEBOT	HARGA SATUAN	TOTAL HARGA	PETAPANAN
106	08-04-14	SITI RIMINH	1. PLASTIK BEKAS 2. KEMASAN 3. PLASTIK	5 5 105	3000 1200 100	1500 600 10500 12100	
107	08-04-14	DREYANTI	1. KERTAS PUTIH	2.5	100	250	3750
108	08-04-14	SURANI	1. KALENG	1.5	1000	1500	
109	08-04-14	SULASTRI	1. PLASTIK 2. KEMASAN 3. KERTAS PUTIH	1.5 5 5	100 1000 500	150 500 2500 3150	
110	08-04-14	MUT RIMINH	1. PLASTIK 2. KERTAS KEMASAN	5 1	100 500	500 500 1000	
111	08-04-14	NUP	1. PLASTIK 2. PLASTIK 3. KERTAS KEMASAN	1 1 5	1000 100 500	1000 100 2500 3600	
112		SULASTRI	1. PLASTIK 2. KEMASAN TEBAL	1 1	100 1000	100 1000 1100	
113		RIFIKI	1. PLASTIK 2. KEMASAN 3. KERTAS KEMASAN	2 1 1	100 1000 500	200 1000 500 1700	



Case scenario

Let's look at waste management more through an example.

A farmer is reusing waste in various ways.

For example, empty plastic bottles are made into insect traps and garbage bins.

Empty chemical containers are used to fetch water.



?

Is this an example of good waste management?

Think about the answer before you click next

Case scenario - Solution

The answer is “**No**”, this is **not good** or **safe waste management practice**.

While reuse of waste is encouraged, this is not the case for empty chemical containers.

Empty containers have chemical residues that can affect people’s health.

Agrochemical containers **should not be reused for any purpose**. These containers must be cut or perforated to prevent reuse and stored securely until they can be disposed safely.



Case scenario



Let's look at another example.

A farmer segregates the waste on the farm into **organic** waste and **inorganic** waste and keeps them in two different holes.



?

Is this an example of good waste management?

Think about the answer before you click next

Case scenario - Solution

The answer is “**No**”, this is not a good waste management practices.

While it is good that the farmer is segregating waste, the waste hole is collecting rainwater.

This stagnating water is going to be a breeding place for mosquitos.

You need to be careful and ensure that waste bins or deposit holes do not collect rainwater.



Case example: Waste Management in a region in Sri Lanka

In a region in Sri Lanka, various estates have implemented **waste management plans** and organized **waste collection campaigns**.

These efforts have kept the environment clean and free of waste.

These campaigns have also reduced significantly workers' illnesses and improved health due to fewer mosquitoes, flies, and toxic substances.





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