

Tools to support community transformation

C2 REVEALING GOOD PRACTICE

Managing household waste

At a glance

- Households and communities should try to put into practice the '5 Rs':
 - Reduce the amount of waste we produce
 - Reuse things as much as possible
 - Recycle things that cannot be reused
 - Rot our fruit and vegetable peelings (composting)
 - Recover energy from waste through, for example, a biogas digester.
- Waste should never be openly burnt.
- Waste should never be thrown onto open waste land, or into rivers or the sea.
- In urban areas, try to find out what services exist and make use of them, or advocate for new services.
- In rural areas, once the '5 Rs' have been followed, rubbish pits can be used but ensure that they are at least 20 metres from water supplies and at least 1 metre above the water table (groundwater level) during the rainy season.



Why use this tool?

Waste is an increasing problem in many communities around the world. When there is no safe and effective system in place to manage waste, it collects around houses, on streets, in drains, and on informal dumping sites. It impacts people's health and dignity, and harms birds, animals and the environment. Good waste management is needed to ensure the safety of communities, and to protect the environment.



A brief description

This tool gives suggestions about what households and communities can do reduce and manage the waste they produce.



rubbish

Explaining the words we use

Pollution - when land, air or water are made dirty and unsafe by harmful actions or processes

Waste - things that people no longer want or need. Sometimes called garbage or

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Keys to success

- Reducing the amount of waste we produce is key. The less waste we produce, the
 easier it is to manage.
- Separate waste at source. For example households could have different bins for
 waste to be recycled (which could be separated into paper, cardboard, plastic and
 tin), organic waste to be composted or used in a biogas digester, and other waste
 that needs to be disposed of another way.
- Any project to manage waste needs to understand the community culture and practice of waste management. Who within the household deals with waste? What are the expectations and attitudes of both men and women in terms of managing waste? Expectations vary widely as to whether people will be willing to pay for waste collection from their homes. In some communities, people are happy to pay, in others, they expect it to happen free of charge. In others, incentives have to be offered in order to encourage people to hand over waste to collectors. Community education and mobilisation is often an important early stage in any project.
- In many societies, women are responsible for household waste management and are the primary users of waste management services. **Inclusion of both women and men**, of all ages, is very important in any project related to waste.
- It is important that people understand why sustainable waste management is important. Use the information in **Tool A1: Revealing the problem of waste** to help explain this.



What to do

The '5 Rs': reduce, reuse, recycle, rot, recover

The '5 Rs' may provide a helpful framework for households and communities seeking to manage their waste:

REDUCE

Where possible, can we **reduce** the amount of waste we produce? For example:

- Can we reduce the amount of plastic bags and bottles we use?
- Can we buy items with less packaging?
- Can we only buy things that we really need?
- Can we share items for example farming tools or electrical equipment within our communities, so that every household does not need to buy and own their own?

REUSE

Can we reuse things as much as possible, repairing things when they are broken, rather than replacing them?

 How could some waste items be reused? For example, old cans or cut-up plastic bottles can be used for growing tree seedlings; and well-washed glass jars can be used to store foods, carpentry and office supplies.



Awareness-

- Can we buy things that can be used many times, rather than just once? For example, a cotton bag will last much longer than a plastic bag. And can we buy cups, plates and cutlery that can be washed and reused, rather than disposable cups, plates and cutlery?
- Can we look after things so that they last as long as possible?
- Who in the community is good at repairing things? Could they be asked to teach others their skills?

RECYCLE

When things cannot be reused, can they be recycled so that they are made into something new? It is possible for items such as glass bottles, metal and tin cans, newspapers and plastics to be recycled.

- What recycling facilities are there in your area?
- Are there people who collect items for recycling? Are there companies who buy these items? Find out what services exist and how you can connect to them.
- Is there potential to start a waste collection, sorting or recycling business? What markets currently exist for selling specific types of waste (eg for recycling) or for processed/recycled products? See Tool C2: Starting a business for further advice.



The 4th R - 'rot' - is referring to composting food waste.

Can we compost our food waste such as fruit and vegetable peelings? See Tool C2: Composting for more information. See also Tool C2: Preserving and processing food for information on how to keep produce for longer, therefore reduce wastage.





Awareness raising

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sanitation

Households and communities should prioritise the '5 R's' above. However, if after carrying out these things waste remains, here are some guidelines for disposal.

- Waste should **not** be openly burnt. Only dry organic matter can be burnt, in controlled environments such as efficient wood stoves or combined heat and power plants (CHP).
- Waste should **never** be disposed of on open waste land, in rivers or the sea.



How to dispose of waste: specific advice for urban communities

- Do waste collection services exist in your town or city? Do they service your community?
 Are they delivering what they promise? If not, is it possible to advocate to companies or the municipal authority for this?
- If there are not services that will collect the waste from your house, are there places you
 can take the waste for recycling, and proper disposal of what cannot be recycled or
 composted? Is this something you could do jointly with your neighbours?
- Are there any community 'waste-to-income' or recycling schemes in operation?
- Who is involved in sorting waste? This could be formal waste collection or waste pickers collecting waste to make an income.

Tip - Try to sort your waste as much as possible as soon as it becomes waste. It is harder to separate waste into what can be recycled, what can be composted etc after it has all been mixed. Households could have a separate bin for each type of waste.

How to dispose of waste: specific advice for rural communities

- As a last resort, rubbish pits may be the best and safest way of disposing of household waste in rural areas. They remove household waste from view and keep flies, rats and unpleasant smells away from the home. However, unless located, dug and used properly, these may pollute the land and water sources see below for guidance.
- Avoid putting batteries and other toxic waste in a rubbish pit as these will contaminate the soil and water sources. Any batteries or other toxic waste should be carefully wrapped and sealed in waterproof material such as a strong plastic bag, and then buried.

Guidelines for digging pits:

The rubbish pit should be far enough from wells and streams to protect water sources from contamination. Pits should be dug at least 20 metres from water supplies and 20 metres from homes.



- The rubbish pit should not be located on valuable land, such as crop land.
- The pit should not be dug on wet ground as it may harm crops and animals, and potentially pollute drinking water.
- The bottom of the pit must be at least 1 metre above the level of groundwater during the rainy season. If necessary, dig a test hole 1 metre deeper than the bottom of the proposed pit just after the rainy season. If no groundwater is observed in the hole, the site is suitable.
- The ground beneath the pit should ideally be composed of non-fissured rock or clay, so that leaching is prevented. This will not be possible everywhere, but unless the pit is located in high clay content soil above the water table, it may pollute water sources which can make people sick. If there is a high water table you can "bury" by piling it above the ground and covering it with a layer of excavated high clay content soil.
- The pit should be located near ground which can be easily dug. Keep the soil that has been removed for covering the rubbish.
- Pits should be about the size of two doors (2 x 2-3 metres) and between 1 metre and 1.5 metres deep. This size will last an average household several years. For large households, the rubbish pit could be bigger. It is a good idea to dig only about 1 metre of the desired length of the pit to start with. Otherwise the rest may fill with soil due to wind and water erosion.

Using the rubbish pit

- Build a fence or hedge around the pit to keep young children and animals away.
- When rubbish is placed in the pit, cover it with a thin layer of soil to avoid smells and reduce flies. Do not leave exposed waste in the pit.
- When the waste and cover soil have nearly risen to the ground surface, place a final thick layer of soil or composted material. Then dig a new pit. When a rubbish pit is full, the site should be marked to avoid people digging it up again.

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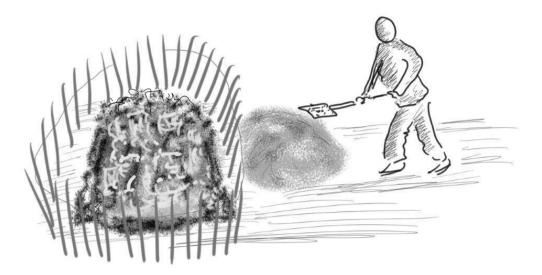
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CAUTION!

Care must be taken when handling waste to prevent cuts from sharp-edged scraps. Cleanliness is important to prevent the spread of disease. People should wash their hands after handling household waste, especially before preparing and eating food.

Source of Guidelines for digging pits - adapted and updated - Tearfund (2005) PILLARS: Managing good hygiene and sanitation, and Footsteps 59 (2004) Pollution



Finding out more

- Bates, E (2007) Practical Action Technical Brief: Biogas https://answers.practicalaction.org/our-resources/item/biogas
- Tearfund (2017) Why advocate on waste and a circular economy http://tilz.tearfund.org/en/resources/policy and research/sustainable economics/the circular eco nomy/
- Tearfund (2004) Footsteps 59 Pollution http://tilz.tearfund.org/en/resources/publications/footsteps/footsteps 51-60/footsteps 59/

Related tools:

- A1 Revealing environmental degradation: information for facilitators [A1: Climate & environment-21
- A1 Revealing the problem of waste: information for facilitators [A1: Climate & environment-3]
- A2 Slides and ladders helping or harming the environment? [A2: Climate & environment-3]
- A2 How is our environment changing? [A2: Climate & environment-5]
- A2 Mapping our past, present and future environments [A2: Climate & environment-6]
- B Caring for God's world (Bible study) [B: Climate & environment-2]
- B Caring for our environment (Bible study) [B: Climate & environment-3]
- C2 Composting [C2: Climate & environment-4]