

Tools to support community transformation

C2 REVEALING GOOD PRACTICE

Developing rural home gardens

At a glance

- Decide on a clear purpose for the garden for feeding the family, providing a small income, helping the environment or a community project.
- Ensure participation of the right people.
- Decide on the location and size in sunlight or shade, close to a water source and where there is good quality soil.
- Select your crops and plan the layout.
- Maintain soil and plant health, and ensure you plant at the right time.
- Ensure the garden is well cared for.



Why use this tool?

Home gardens produce a varied and nutritious diet for families, improving their health and income. They can be an important activity in helping communities adapt to climate change (see Tool A2 - Different ways of adapting to climate change). If you are in an urban context, read Tool C2 -Developing urban home gardens.



Explaining the words we use

Compost – a fertiliser made from vegetation waste and other natural materials. See Tool C2 - Composting.

Intercropping – growing two or more crops together to benefit each other.

Irrigation – directing water to soil to help crops grow.



A brief description

Advice on how to develop and maintain a home garden that produces a variety of food throughout the year.



Time taken

A home garden takes a few days to design and several months to condition the soil, and sow and grow mature healthy plants.

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You will need

- a piece of land or hanging baskets
- seeds or seedlings for the types of crops to be grown in the garden
- tools to help prepare the soil, for example, hoes or spades
- sticks to make a small hole in the ground to plant the seeds
- water for the crops, especially if you want to maintain the garden throughout the year
- compost or fertiliser (desirable if the soil is of poor quality)



Keys to success

- Ensure participation of the right people. It is particularly important to ensure that women are involved in planning and designing the garden they are likely to be caring for the garden and preparing the food to be eaten.
- **Decide the right location and size** in sunlight or shade, close to a water source, with good quality soil. Ideally the garden should be near the home so that people don't have to walk far to look after it. It is important to avoid contamination from nearby latrines, garbage areas or other pollution sources.
- Decide upon the right crop selection and layout. Crops can be planted in stages
 (a few each week) so that they can be harvested and consumed from one area of the
 garden while the other crops grow. This helps keep a supply of different crops.
 Different plants require different nutrients from the soil and harbour different diseases.
 They also give back different nutrients to the soil. Rotating the crops in different
 locations each year will help improve the condition of the soil naturally. Intercropping
 different crops together is another way of improving the soil condition and helping to
 increase harvests.
- Ensure the garden is cared for. Plant at the right time for the rain and seasons. Maintain soil and plant health and consider organic pest control and fertilisers.



What to do

Decide on the purpose

Home gardens have many purposes such as providing food for the family or animals, or produce to sell at market. If the purpose of the home garden is to provide food, what types of food are missing from local diets? A home garden can be an excellent way to make sure that families are eating a varied and nutritious diet. For example:

- Roots and tubers such as cassava, yam and sweet potato are rich in energy.
- Legumes such as peas, beans and lentils provide protein, fat, iron and vitamins.
- Fruits and vegetables provide minerals and vitamins.

What plants could be grown which will increase nutrition? Nutritious diets are especially important for pregnant women, young children and people living with HIV and AIDS.

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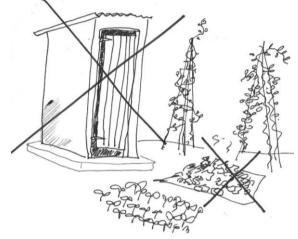
Ensure participation

Who should be involved in the design and planning of the garden? Ensure that the location, design and the choice of crops to be grown suits those who are likely to be caring for the garden and preparing the food to be eaten (usually women). Including children in this activity can be a good way of teaching them about healthy eating.

Select the right location and size

Home gardens need daily attention. Is there a plot of land available near the home or near a water source? What size should the home garden be? Home gardens can be any shape or size - depending on what land is available. It is better to start small and expand gradually as the gardener gains experience.

Do you have, or can you obtain, the right to grow crops on the land? Should you share the garden with neighbours? How will you protect the crops from damage from animals, intense rainfall, sun or wind? Are there latrines, garbage areas or other pollution sources nearby? It is important to avoid contamination from these.



Select the right crops

It is important to grow a variety of fruit and vegetables, not just grain crops. It is also important to select different crops that are resistant to different pests and environmental change such as droughts, floods or fly attacks. For example, a mixture of root vegetables (eg carrots), fruit trees, legumes (eg peas), brassicas (eg cabbage). It is helpful if you select existing local traditional crops, but it may be necessary to introduce new crops to achieve the required nutrition.

What crops grow well in the area? Are some varieties of fruit and vegetables more resilient to pests and diseases? What needs can be met through the home garden? For example, food, fodder, medicinal plants, shade etc? What are the soil conditions? What about the weather: is it changing? Is this knowledge within the community? Are there local experts you could ask for advice? Are there any home gardens already in the locality that people could visit?



Can trees, other crops and livestock be integrated into the garden?

Yes! Trees can be another important way of meeting many household needs including income, nutrition and shade. Livestock can be incorporated into the home garden and have multiple uses. See Tool C2 - Keeping livestock and Tool C2 - Poultry Keeping. You may want to find out about plants that can be grown to protect your crops from pests and diseases such as neem, marigolds and nasturtiums.

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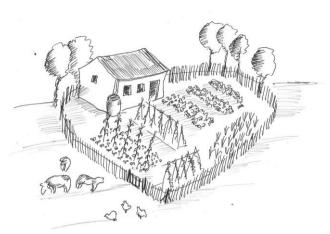
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Choose the right layout for the garden

How much of each type of crop is needed by the household every week? Crops can be planted in stages (a few each week) so that you can harvest and consume from one area of the garden while the other crops grow. This helps keep a supply of different crops.

Can the home garden be laid out so that you can rotate different types of crops in different locations each year? Different plants require different nutrients from the



soil and harbour different diseases. They also give back different nutrients to the soil. Rotating the crops will help improve the condition of the soil naturally.

Below is an example from a typical African rotation which can be adapted to different contexts:

Rotation One - Year 1:

Garden area 1 Cabbage Spinach	Garden area 2 Peas Beans
Broccoli (also known as the Brassicas)	(also known as legumes)
Garden area 3 Carrots Sweet potatoes Onions (usually root crops and onions)	Garden area 4 Tomatoes Peppers Aubergine Chillies

Rotation Two - Year 2:

Garden area 1 Carrots Sweet potatoes Onions	Garden area 2 Cabbage Spinach Broccoli
Garden area 3 Tomatoes Peppers Aubergine Chillies	Garden area 4 Peas Beans

Intercropping different crops together is another way of improving the soil condition and helping to increase harvests. For example, beans and maize can be grown together in alternating rows. However, it is important to be careful as not all crops benefit each other. Sometimes, they compete with each other which can reduce crop yields. Are there local experts, farmers, or neighbours with experience that you can ask for advice?

Keeping soil healthy

The soil can also be improved through using compost (see Tool C2 - Composting), and through adding mulch (see Tool C2 - Conservation agriculture).

Other ways of improving the soil include removing large stones, and digging in sand, if available, into clayey soil.

Planting at the right time

All vegetables have an ideal planting time which also depends on the seasons and timing of the rains. It is important to find out the best time to plant different vegetables locally, especially if access to water is an issue. Some vegetables and plants (for example, beans, peas and carrots) can be directly sown into the garden using seed. Other vegetables (such as peppers, tomatoes and onions) survive better if they are grown in a nursery and then transplanted into the garden.

Ensure the garden is cared for

Before the home garden can be planted, the soil needs to be prepared by removing the weeds. Regular weeding is also needed to ensure that the crops are able to grow and do not face competition for water, sun or soil. Many plants will also need to be watered, especially if they are grown in the dry season. Where water is scare, use wastewater or collect rainwater. Working in the garden regularly helps to monitor progress and identify problems early. It also spreads the workload so you're not working too hard all in one go.

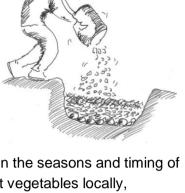


If plants in the home garden are affected by pests and disease. there are simple low-cost methods that many people say help with effective pest control. For example, a mixture of onion, garlic and water can be sprayed directly onto leaves, stems and fruit or also applied to the soil around affected crops.

Can the home garden be used as a source of income?

Home gardens can provide a source of income for families when the surplus produce is sold. However, there are many important things to consider if this is part of the aim of home gardening. Please see Tool C2 - Starting a business, which includes advice and questions to ask when starting up livelihood activities for the first time.

You could also ask your neighbours if you could all work together. For example, each of you could grow different crops and share produce to feed your families and sell at market. This can reduce the workload and help to build good relationships.



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The garden will need to be regularly cultivated as new crops are planted.





Finding out more

For more on home gardening:

- Tearfund (2002) Footsteps 52 Gardening for better nutrition tilz.tearfund.org/en/resources/publications/footsteps/footsteps 51-60/footsteps 52/gardening for better nutrition/
- Tearfund (1991) Footsteps 7 -- Home gardens tilz.tearfund.org/en/resources/publications/footsteps/footsteps_1-10/footsteps_7/
- FAO (2004) Developing home gardens http://www.fao.org/docrep/006/y5112e/y5112e05.htm

For more information on nutrition:

• Tearfund (2003) *PILLARS Guide on Healthy eating* http://tilz.tearfund.org/en/resources/publications/pillars/healthy_eating/

For more on managing pests and diseases:

Tearfund (2014) Footsteps 94 – Valuing food, Article on Natural pest management
 http://tilz.tearfund.org/en/resources/publications/footsteps/footsteps 91-100/footsteps 94/

Related tools:

- A1 Revealing environmental degradation: information for facilitators [A1: Climate & environment-2]
- A2 Different ways of adapting to climate change [A2: Climate & environment-1]
- B Caring for God's world (Bible study) [B: Climate & environment-2]
- B Caring for our environment (Bible study) [B: Climate & environment-3]
- B A wise choice of diet (Bible study) [B: Food & livelihoods-1]
- B God's provision of healthy food (Bible study) [B: Food & livelihoods-2]
- C2 Composting [C2: Climate & environment-1]
- C2 Keeping livestock [C2: Food & livelihoods-2]
- C2 Poultry keeping [C2: Food & livelihoods-3]
- C2 Conservation agriculture [C2: Food & livelihoods-5]
- C2 Starting a business [C2: Food & livelihoods-6]
- C2 Developing urban home gardens [C2: Food & livelihoods-9]
- C2 Processing and preserving fresh produce [C2: Food & livelihoods-11]
- C2 Rainwater harvesting [C2: Water, sanitation & hygiene-1]