

## Tools to support community transformation

C2 REVEALING GOOD PRACTICE

# Poultry keeping

### At a glance

- Ensure you have a clear purpose. Which type of birds will you keep? Are you wanting a source of eggs or meat, or income?
- Decide where the birds will live. A house can be built cheaply using local materials. The size depends on how many birds there are and whether they are to be housed overnight or for longer periods.
- Houses can be built on poles with inverted metal cones or cans on them to stop rats and snakes from entering. However, hens with young chicks need chicken houses built close to the ground.
- Keep houses clean.
- Empty a house where sick birds have been. Clean it, move it or even burn it and build a new one.
- Ensure the birds are well fed on a diet rich in protein, carbohydrate and vitamins and minerals. Provide clean water to drink.
- Keep the birds healthy. Keep food and drink equipment clean. Vaccinate the birds against preventable diseases and treat them regularly to prevent parasites.
- Think about the poorest people in the community is an 'animal loan' or 'pass it on' scheme appropriate?
- Ensure excellent standards of cleanliness and hygiene in the slaughtering of birds and preparation and storage of food.

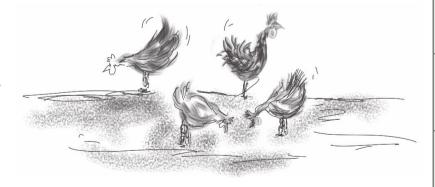
## Why use this tool?

Meat and eggs from poultry are a highly nutritious source of food, and can also help families earn an income.



## A brief description

This tool explains the issues to consider when planning to keep poultry. It describes how to keep poultry healthy, and how to reduce the chances of problems developing.



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#### The words we use

**Community-based animal health worker (CBAHW)** / para-vet – someone from the community who has received basic training in animal health and gives help and advice to people with sick animals.

**Parasite** - an animal that lives in or on a host (another animal or plant). They get nourishment from the host but cause them harm. For example, ticks, mites and fleas. **Poultry** - chickens, ducks, quail, guinea fowl, geese and other domestic birds.



#### You will need

- Space for the poultry to live
- Materials to make houses, perches and nests (if you choose to do so)
- Poultry feed and water

#### Why keep poultry?

- Only a small amount of capital is needed to begin poultry keeping.
- The meat and eggs are extremely nutritious to eat.
- Poultry are relatively easy to keep and do not require much labour.
- Poultry is often served as part of cultural festivals and local functions.
- The birds need only simple housing.
- Poultry meat and eggs are usually easy to sell.
- Feathers can be used to make hats and other traditional decorations.



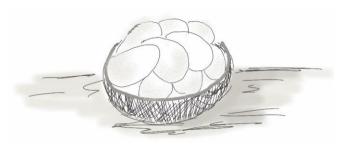
## **Keys to success**

- Ensure the birds are well fed and given clean water to drink.
- Keep animals healthy. Learn about common diseases and local animal health services, drugs and treatments. If possible, have the birds vaccinated against preventable diseases.
- If keeping the birds in houses, ensure they are well-ventilated (have enough fresh air).
- Keep everything clean (for example, the houses, feeders and water trays).
- Ensure an unhealthy or sick bird is spotted as soon as they become unwell, so that you can take action before disease spreads to other birds.
- · Keep parasites away.
- Have extremely high hygiene standards when slaughtering and processing the birds and preparing food.
- Be aware that the number of eggs laid by even the most productive chickens reduce dramatically after one or two years.



#### Decide why you are keeping poultry

Which type of birds will you keep? Are you wanting a source of eggs or meat, or both? Are these to be eaten by the household, or to be sold? If you are considering keeping poultry in order to sell meat, eggs or other products such as manure, is there a market for these products?



If you plan on selling meat, where will you get your chicks /ducklings from in order to maintain a stock? Breeding birds is very complicated and it is best to leave it to specialists. If you plan on buying chicks or ducklings, can you be sure there will be a regular supply in the future?

Please see **Tool C2 - Starting a business** for advice if you are planning on selling produce.

#### How many eggs does one chicken lay?

For traditional breeds who roam around and do not live in hen houses, you can expect about **150 eggs** during a hen's lifetime. For housed hens, that goes up to **250–300 eggs**. This is because by collecting eggs, you trick the chicken into thinking it hasn't already laid an egg so it lays another one. If you do not remove the eggs, the hen will simply begin to sit on them, expecting them to hatch. This will make your egg production go down. *Source: Tearfund (2014) Footsteps 95 – article on 'Thinking like a chicken'*.

#### Decide where the poultry will live

- Think about housing for the poultry: will the birds be housed all the time, or just at night to protect from bad weather, animal attacks and thieves?
- Will you provide perches for roosting? These help to minimise the contact between the birds and their droppings, and therefore help to prevent diseases. The perches can be made from bamboo



or straight tree branches. Each adult chicken requires about 20cm of perch space.

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 What about nests? Providing clean nests in safe places above the ground means more eggs can be collected. A hen will hatch more chicks if her nest is clean, dry and safe.
 Ideally, each hen should have their own nest, but if this is not possible, do not have more than five hens per nest.

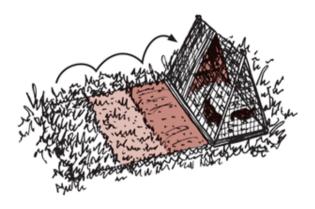
A house can be built cheaply using local materials. The **size** of the house will depend on how many birds there are and whether they are to be kept in the house overnight or for longer periods. If too many birds are kept together they may start to peck each other, leading to injury and diseases. A house about 4m long, 1m wide and 1.5m high can hold 8 to 10 adult birds if they are kept enclosed all day, or about 20 for overnight housing.

#### Building a chicken house

- Clear the grass and bush for about 3m on all sides of the house site to keep predators such as snakes and rats away from the chickens.
- Remove the bark from timber used to build the houses so that pests and parasites have nowhere to hide.
- The house should protect the chickens from rain and wind but have enough ventilation to ensure fresh, clean air.
- The opening should be wide enough to easily clean the inside of the house.
- Because many infectious diseases of chickens are transmitted via their droppings, ensure the floor of the house has openings to allow droppings to pass through to the ground. The spaces between the slats will depend on the age and size of the chickens. Ensure they have enough foot support and that droppings can pass through. Wire netting can also be used, with perches attached.
- If the chicken house is built on poles to protect it from predators, it should be at least 1m above the ground but not so high that the inside of it cannot be reached by the farmer.
- Putting inverted metal cones or cans around the poles will make it harder for rats and snakes to get into the house.
- Keep it clean to prevent and control diseases. Remove droppings and litter from inside
  and underneath the house at least once a week and, if the house is portable, move it to a
  fresh area.
- Fumigate the chicken house with smoke every six months. Empty a house where sick birds have been. Clean it or even burn it and build a new one.







Source of content and images, and for further information, see: Tearfund (2014) Footsteps 95 - Poultry Keeping, article on Housing Village Chickens

Hens with young chicks need chicken houses built close to the ground as they will not be able to enter a house above ground level. By digging a drain around the house or raising the floor, it will stay dry during the rainy season. Regular movement of chicken houses and chicken runs will help prevent worm infections and allow the ground to recover from pecking and scratching.

#### Chicken manure

Break up chicken manure after cleaning so that it dries quickly. Compost it for at least three weeks and then place the manure on gardens, mixing it into the soil. See Tool C2 - Composting.

#### Ensure the birds are well fed

Birds need to be fed well with the right type of food to ensure good quality eggs and meat. Chickens need a mixed diet and a constant supply of grit and bone. Very young chicks (up to three weeks old) should be given finely chopped boiled egg. After this, chicks can eat the same food as grown birds but it should be chopped up until they are about 6 weeks old so it is easier for them to eat. From six to eight weeks onwards chickens need food from the three different food groups - protein, carbohydrate and vitamins and minerals. Place these in three different containers and allow free choice feeding. The chickens will eat according to their needs. Birds also need clean water to drink.



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Examples of chicken feed				
Protein	Carbohydrate	Vitamins and minerals		
Cooked fishing waste, fishmeal, animal offal, earthworms, insects, bean and groundnut (peanut) meal, oil cakes eg soya cake, sunflower cake, groundnut cake (a waste product from oil extraction)	Sorghum, sugarcane, corn, millet, cassava, sunflower, rice and other grains, boiled root crops like yam and sweet potato, animal fat, oil cakes eg copra (coconut) cake, cotton seed cake	Fresh green leaves, fresh green vegetables, grass, paw paw and other fruits, boiled crushed animal bones and eggshells, crushed oyster shells and snail shells, salt		

Source: Tearfund (2014) Footsteps 89 – Poultry Keeping, What should chickens eat?

#### Keep the birds healthy

- Ensure the birds are well fed and given clean water at all times.
- If keeping in hen houses, ensure they are well-ventilated (have enough fresh air).
- Keep everything clean, such as the houses, feeders, water trays etc.
- If possible, vaccinate birds against preventable diseases such as Newcastle disease.
- It is important to spot an unhealthy or sick bird so that action is taken before disease spreads to other birds. If your animals are unwell, consult a community-based animal health worker for advice on treatment and any other measures to be taken.
- Do not mix chicks with older birds when brooding. Only buy chicks from reliable sources.
- Reduce mosquitoes by draining areas where mosquitoes breed.

#### Questions to consider:

- Who can provide vaccinations and drugs to treat illnesses for the birds?
- How easy is it for the community to access animal health services, perhaps from the local government?
- If there are no community-based animal health workers or para-vets locally, can the community (or an organisation working with the community) advocate for services to come to the area? Could local community members be trained as para-vets for the community? See Tool C1 – Advocacy – communicating with people in power.
- What diseases that affect poultry are common in the area? Can the first signs of disease be recognised?
- What can be done to prevent diseases passing from animals to humans?

sanitation

#### Avian flu

Avian flu is very infectious and can affect chickens, ducks, geese, turkeys, guinea fowl, quail, pheasants, pigeons, 'song birds' and many types of wild birds. The birds may or may not show signs of the disease; if signs do appear, they begin two to five days after the bird catches the virus.

Avian flu is dangerous because it can:

- kill all poultry on a farm
- spread rapidly to other farms and to the whole country
- sometimes be passed on to humans leading to sickness and even death



It is spread through both direct contact and indirect contact with infected birds. Indirect contact includes items such as clothes, shoes, wheels and equipment coming into contact with the disease and spreading it. Flu-infected birds and contaminated objects (eg eggs, feathers, manure) should be handled and disposed of with great care. They should be burnt or buried.

For more information see Tearfund (2014) Footsteps 95 – Poultry Keeping, article

#### **Keep parasites away**

Lice and mites bite and damage the skin. Mites, ticks and fleas suck the blood and cause anaemia (thin blood) and poor egg production. Other parasites can carry other diseases, such as fowl pox. Rather than waiting until the problem of parasites becomes serious, it is better to treat the poultry regularly to prevent any infestation. Placing wood ash or lime on the floor and walls of chicken houses will help to repel external parasites and aid the removal of manure when cleaning. If parasites become a problem, consult an animal health worker who will be able to prescribe insecticides to deal with them.

#### **Ensure participation**

Are some people too poor to purchase poultry? Could the community initiate an animal loan or 'pass-on' scheme? Usually, a bird is given to or bought for a chosen person in the community, with the agreement that a number of its offspring will be passed on to others in the community.

Tearfund's Footsteps 89, pages 8–9 has more information on animal loan schemes. Please see 'Finding out more' below.

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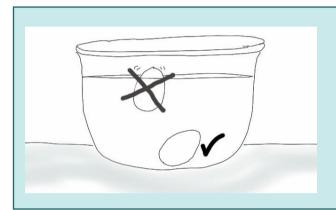
Food & ivelihoods

### Food hygiene

Take care to avoid meat and eggs becoming contaminated by harmful bacteria that can cause food poisoning in humans. If slaughtering birds to be eaten, ensure excellent hygiene standards. How can you reduce the risks of the meat becoming contaminated? If refrigeration is not available, consume your poultry as soon as possible after slaughter and

See Tearfund (2014) Footsteps 95 – Poultry Keeping, article on 'Safe and healthy poultry keeping' for detailed advice on reducing the risks during slaughtering and processing.

cook all poultry products thoroughly to kill any bacteria and prevent food poisoning. If other foods, such as vegetables, come into contact with raw chicken they become unsafe unless also thoroughly cooked. Do not keep leftover meat and eggs in warm places. Eat it all at the first sitting, or refrigerate it.



If eggs smell bad, they are bad! You can check if your egg is still good by placing it in a bowl of water. If it floats to the top it is rotten. This works for fresh and hard-boiled eggs.



## Finding out more

- Tearfund (2014) Footsteps 95: Poultry Keeping
   http://tilz.tearfund.org/en/resources/publications/footsteps/footsteps 91-100/footsteps 95/
- Tearfund (2012) Footsteps 89: Livestock
   http://tilz.tearfund.org/en/resources/publications/footsteps\_81-90/footsteps\_89/
- Keeping Village Poultry: A technical manual on small-scale poultry production ISBN 87-990401-0-7, Network for Smallholder Poultry Development, 2004 To download this guide, search online for the ISBN code above and follow the link to the PDF.

#### Related tools:

- 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 Starting a business [C2: Food & livelihoods-6]

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