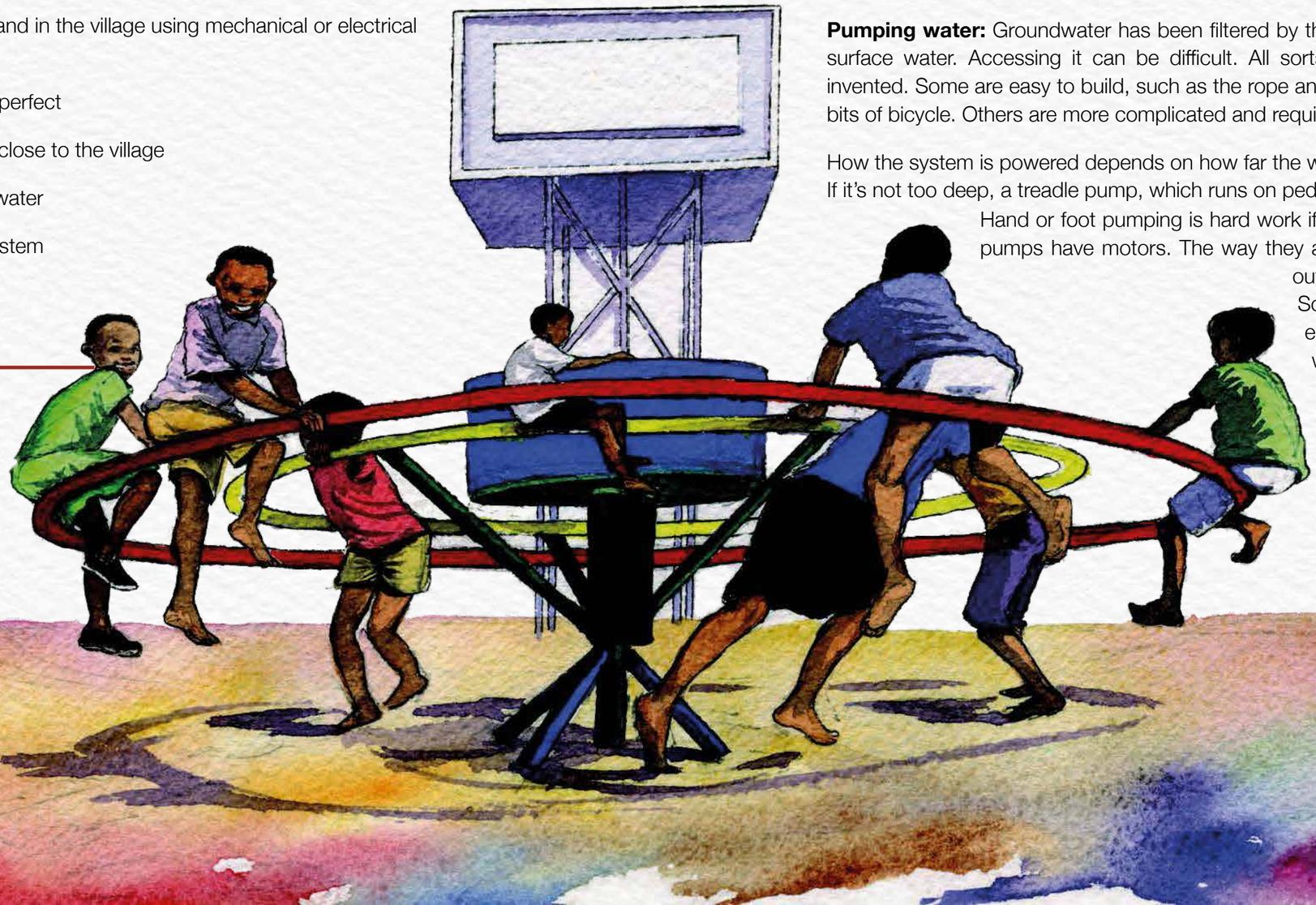
GETTING WATER TO YOUR HOME - THE SOLUTIONS

It is often the job of women and children to fetch water for domestic use. In the countryside, women often walk ten miles or more every day to fetch water. In the dry season women may have to walk twice as far. Constantly carrying heavy weights on the head, back or hip can damage women's bodies. Back-ache and joint pains are common. In extreme cases, women's spines curve and the shapes of their pelvises change, making it hard for them to give birth. Girls are sometimes kept out of school because they are needed to carry the family's water. This is very bad for their education.

Some solutions to this problem include:

- Pumping water to a tap-stand in the village using mechanical or electrical pump
- Solar powered pumps are perfect
- Digging a well or borehole close to the village
- Collecting and storing rainwater
- Installing a gravity water system



This is a roundabout pump. As the children play, water is pumped from under the ground (www.playpumps.org)

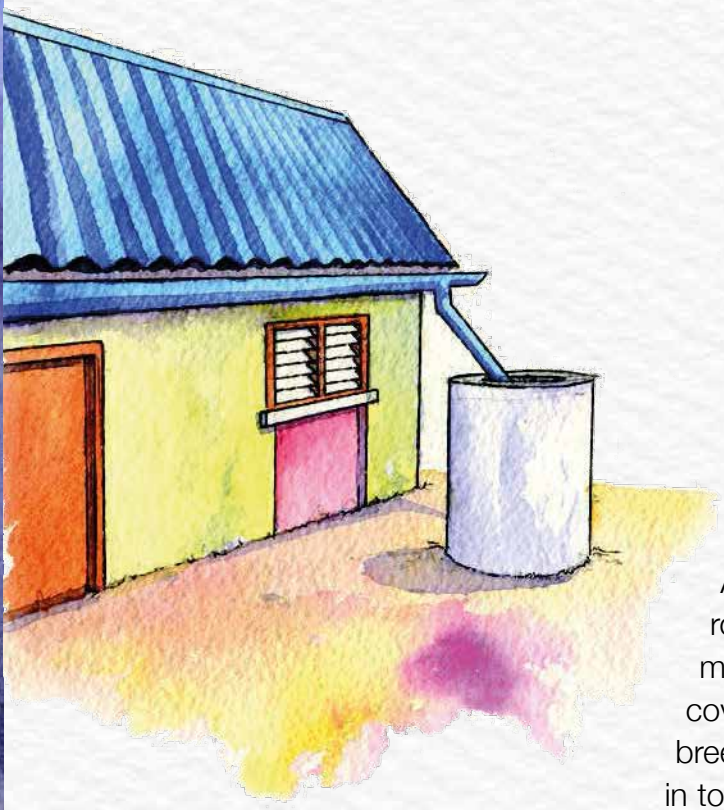
It is always vital to involve as many people as possible in decisions about water supplies. The whole community needs to work together to put the system in and keep it working. You can form a committee to make decisions on the type of water supply system and how it will be managed and paid for.

If care is not taken a new water supply can have unexpected effects. Nomadic pastoralists traditionally move with their livestock, following the rains. Having a fixed water supply may lead them to settle in one place, changing generations of custom, skill and habit, and creating environmental problems if care is not taken.

Pumping water: Groundwater has been filtered by the soil and is often cleaner than surface water. Accessing it can be difficult. All sorts of clever devices have been invented. Some are easy to build, such as the rope and washer pump, made from old bits of bicycle. Others are more complicated and require help from engineers.

How the system is powered depends on how far the water lies beneath the surface. If it's not too deep, a treadle pump, which runs on peddle power, can work well. Hand or foot pumping is hard work if groundwater is deep, so some pumps have motors. The way they are powered is critical. Running out of diesel can mean no water. Solar is an option and if there is enough wind you could use a wind pump. **Chapter 5** tells you all about this.

ACTION SHEETS - 12: Community Water Security, 16: Getting Groundwater, 18: Useful Water Pumps



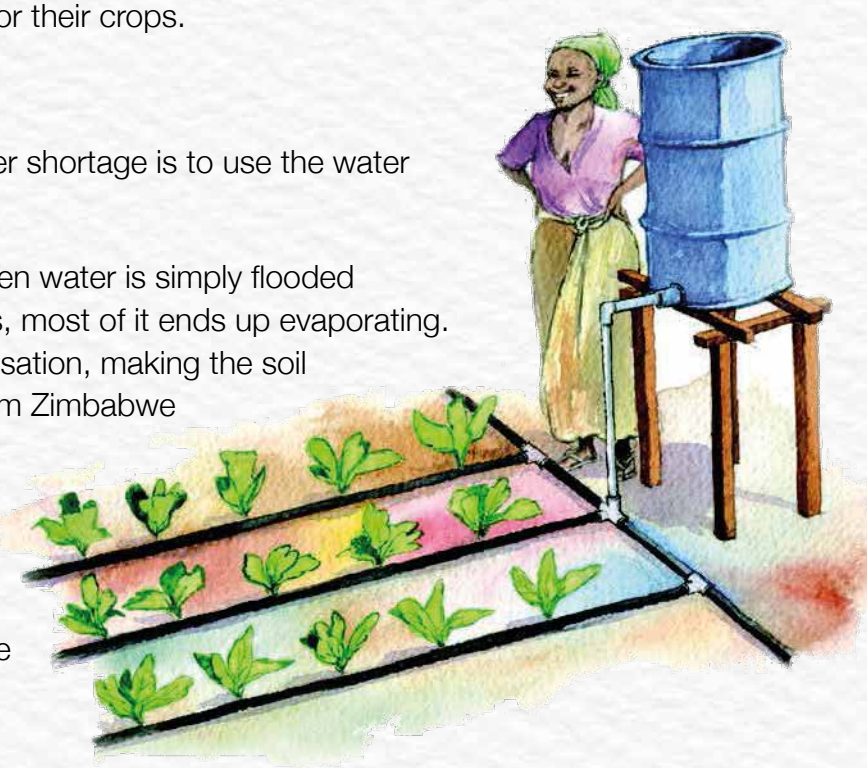
Rainwater Harvesting

One simple way to improve water supplies is to harvest the rain. Your roof can provide your water. A gutter collects the rain from the whole of your roof surface. Be careful it is not made of poisonous material - steel is best. Keep the water container covered so that malaria-carrying mosquitoes cannot breed in it. This prevents animals and children falling in too. The picture shows a rainwater-harvesting house in Kenya. More rainwater can be collected in specially-built ponds or pits, in tanks, or even buckets. Building small underground dams can stop rainwater draining away into the earth and save it for later use. See Chapter 3 for ways in which farmers are harvesting rainwater for their crops.

Using water wisely

Another way to help the problem of water shortage is to use the water you have more wisely.

Much water is wasted in agriculture. When water is simply flooded into a field through ditches and channels, most of it ends up evaporating. Too much irrigation can also cause salinisation, making the soil too salty for plants to grow. This lady from Zimbabwe is using a drip irrigation kit to feed small amounts of collected rainwater directly to her plant roots, using the minimum necessary.



Reuse your water! Re-used water can be used in the garden or farm to grow your crops.

It is not enough that water is accessible, it also needs to be clean. The next section explains why this is so important.

ACTION SHEETS - 13: Roofwater Harvesting, 15: Rock Catchment Rainwater Harvesting, 18: Drip Irrigation

Watch the film on Harvesting water on the farm