

# Drinking Water Fact Kit

## Rainwater Collection Systems

Rainwater collection systems were widely used before well drilling equipment and treated municipal water supplies became available. In many parts of the world, rainwater still provides a majority of the water needed to meet agricultural requirements and, in some cases, drinking water as well. Even in those communities where residents are supplied with public water for drinking, homeowners and businesses may collect rainwater to use for watering lawns and gardens.

### Components of Rainwater Collection

Most rainwater collection systems are designed to capture rainwater from the roofs of buildings. The water is then transported through gutters and other pipes into cisterns or tanks, where it is stored until needed. The water collected can then be used for irrigation, laundry, hygiene, or even potable water, depending upon the materials used in the collection system and the treatment undertaken by the homeowner.

A typical rainwater collection system consists of the following:

- A collection area (usually the roof)
- A method of conveying the water (gutters, downspouts, and piping)
- A filtering device
- A storage tank or cistern
- A system to distribute the water as needed

Virtually any material can be used in systems used to collect nonpotable water. However, it is important to use care when selecting materials and coatings that will come into contact with the water intended for drinking, as impurities can be picked up by the rainwater as it travels through the collection system.

Roofing materials can introduce metals, asbestos or particulate matter, depending on their material makeup. The same is true for cisterns or water storage tanks. If you do plan to use collected rainwater for drinking, try to use materials and/or coatings that have been certified for use in potable water supplies.

Regular microbiological testing should also be performed to ensure water collected for drinking does not contain potentially harmful bacteria. Additional testing may be needed to detect the presence of other impurities. In some situations, homeowners may want to install a home water treatment system to disinfect the water or to filter other impurities from the rainwater collected.



*If you intend on collecting rainwater for drinking, use materials that have been certified for use in potable water supplies.*