

DROUGHT

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South Africa is a water scarce country and there are parts that experience periods of reduced rainfall. In South Africa the water crisis has been further exacerbated by a growing population, increased urbanisation and climate change. The country has experienced severe droughts in recent years and many areas have implemented water restrictions to manage water scarcity. Therefore, it is crucial for individuals to take responsibility and fix any dripping taps in their homes to help conserve water and prevent further shortages.

Planning in advance for a drought can assist us in the dry years.

Before a drought

The best way to prepare for a drought is to conserve water. Make conserving water a part of your daily life.

Indoor water conservation tips before a drought

General

- Never pour water down the drain when there may be another use for it. For example, use it to water your indoor plants or garden.
- Fix dripping taps by replacing washers. For example, a single dripping tap in a household with four people can waste up to 2 880 litres of water per year.
- Check all plumbing for leaks and have any leaks repaired by a plumber.
- Retrofit all household taps by installing aerators with flow restrictors.
- Install an instant hot water heater at your sink.
- Insulate your water pipes to reduce heat loss and prevent them from breaking.
- Install a water-softening system only when the minerals in the water would damage your pipes. Turn the softener off while on vacation.
- Choose appliances that are more energy and water efficient.
- Prepare a water storage system: Build a rainwater harvesting system and ensure that all gutters and downspouts are clean and functioning properly. Install tanks or barrels to store water for use during drought.

Bathroom

- Consider purchasing a low-flow toilet that uses less than half the water of older models.
- Install a toilet displacement device to cut down on the amount of water needed to flush. Place a 4 litre plastic jug of water into the tank to displace toilet flow. Make sure it does not interfere with the operating parts.
- Replace your showerhead with an ultra-low-flow version.

Kitchen

Instead of throwing food in the dustbin, throw food in the garbage or start a compost pile to dispose of it.

Outdoor water conservation tips before a drought

General

- If you have a borehole pump, check it periodically. If the automatic pump turns on and off while water is not being used, you have a leak.
- Plant native and/or drought-resistant grasses, ground covers, shrubs and trees. Once established, your plants won't need as much watering. Group plants together based on similar water needs.
- Don't install ornamental water features (such as fountains) unless they use re-circulated water.
- Consider rainwater harvesting where practical.
- Contact your local water provider for information and assistance.

Lawn care

- Position sprinklers so water lands on the lawn and shrubs and not on paved areas.
- Repair sprinklers that spray a fine mist.
- Check sprinkler systems and timing devices regularly to be sure they operate properly.
- Raise the lawn mower blade to its highest level. A higher cut encourages grass roots to grow deeper and hold soil moisture.
- Plant drought-resistant lawn seed. Reduce or eliminate lawn areas that are not used frequently.
- Don't over-fertilise your lawn. Applying fertiliser increases the need for water. Apply fertilisers that contain slow-release, water-insoluble forms of nitrogen.
- Choose a water-efficient irrigation system such as drip irrigation for your trees, shrubs and flowers.
- Water manually in fall and winter only if needed.
- Use mulch around trees and plants to retain moisture in the soil. Mulch also helps control weeds that compete with plants for water.
- Invest in a weather-based irrigation controller – or a smart controller. These devices will automatically adjust the watering time and frequency based on soil moisture, rain, wind, and evaporation and transpiration rates. Check with your local water agency to see if there is a rebate available for the purchase of a smart controller.

Pool

Cover pools and spas to reduce water evaporation.

During a drought

- Always observe state and local restrictions on water use during a drought. Contact your government or local government for current information and suggestions.
- Reduce water usage: Cut down on water usage as much as possible.

Indoor water conservation tips during a drought

Bathroom

- Avoid flushing the toilet unnecessarily. Dispose of tissues, insects and other similar waste in the trash rather than the toilet.
- Take short showers instead of baths. Turn on the water only to get wet and lather and then again to rinse off.
- Avoid letting the water run while brushing your teeth, washing your face or shaving.

Laundry

Operate washing machines only when they are fully loaded or set the water level for the size of your load.

Kitchen

- Operate automatic dishwashers only when they are fully loaded. Use the "light wash" feature to use less water.
- Hand wash dishes by filling two containers – one with soapy water and the other with rinse water containing a small amount of chlorine bleach.
- Clean vegetables in a pan filled with water rather than running water from the tap.
- Avoid wasting water waiting for it to get hot. Capture it for other uses such as plant watering or heat it on the stove or in a microwave.
- Don't rinse dishes before placing them in the dishwasher, just remove large particles of food.
- Avoid using running water to thaw meat or other frozen foods. Defrost food overnight in the refrigerator or use the defrost setting on your microwave.

Outdoor water conservation tips during a drought

Lawn care

- Heavy rain eliminates the need for watering for up to two weeks. Most of the year, lawns only need 2.5 centimetres of water per week.
- Check the soil moisture levels with a soil probe, spade or large screwdriver. You don't need to water if the soil is still moist. If your grass springs back when you step on it, it doesn't need water yet.
- If your lawn does require watering, do so early in the morning or later in the evening when temperatures are cooler.
- Water in several short sessions rather than one long one in order for your lawn to better absorb moisture and avoid runoff.
- Use a broom or blower instead of a hose to clean leaves and other debris from your driveway or sidewalk.
- Avoid leaving sprinklers or hoses unattended. A garden hose can pour out 2 700 litres or more in only a few hours.
- In extreme drought, allow lawns to die in favour of preserving trees and large shrubs.

Car washing

- Use a commercial car wash that recycles water.
- If you wash your own car, use a shut-off nozzle that can be adjusted down to a fine spray on your hose.

Agriculture

Preparing for drought in agriculture is crucial to ensure that crops and livestock survive during periods of low rainfall. Here are some steps that farmers can take to prepare for drought:

- 1. Water conservation:** Farmers should practise water conservation by utilising irrigation systems that are efficient in water use, such as drip irrigation or low-pressure sprinklers. Also, farmers can consider the use of rainwater harvesting techniques, such as rain barrels or ponds, to capture and store water during times of heavy rainfall.
- 2. Soil conservation:** Soil conservation practices such as minimum tillage, mulching, and crop rotation help to conserve moisture in the soil, making it less susceptible to drought. The use of cover crops is also an effective way to prevent soil erosion, retain soil moisture, and improve soil fertility.
- 3. Drought-resistant crops:** Farmers can plant drought-resistant crops that can tolerate low-moisture conditions. Examples of such crops include sorghum, millet, and cowpeas. These crops are adapted to growing in low rainfall areas and require less water to grow.
- 4. Livestock management:** Farmers should develop a drought management plan for their livestock. This includes ensuring that they have enough food and water to last through the dry period. Farmers can also reduce the size of their herd during droughts to reduce the demand for resources.
- 5. Financial planning:** Farmers should also plan financially for droughts by setting aside funds for emergency expenses and considering crop insurance. This will help them to mitigate the financial impact of crop loss due to drought.
- 6. Government assistance:** Farmers can also seek government assistance during droughts. Governments often provide subsidies or relief programmes to support farmers during times of drought. It is important to stay informed about any government programmes that may be available.

