

The Eight Rainwater-Harvesting Principles

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For a more detailed description of the Eight Rainwater-Harvesting Principles, see pp. 29-38 of *Rainwater Harvesting for Drylands and Beyond, Volume 1*, or pp. 4-7 of *Rainwater Harvesting for Drylands and Beyond, Volume 2*.

1. Begin with long and thoughtful observation.

Use all of your senses to see where the water flows and how. What is working, what is not?
Build on what works.

2. Start at the top or highpoint of your watershed and work your way down.

Water travels downhill. Start at the top where there is less volume and velocity so it is easier to follow the next principle...

3. Start small and simple.

Work at the human scale so you can build and repair everything. One thousand small strategies are far more effective than one big one when you are trying to infiltrate water into the soil.

4. Spread and infiltrate the flow of water.

Rather than having water run erosively off the land's surface, encourage it to stick around, walk around, and infiltrate INTO the soil.

5. Always plan for an overflow route, and manage that overflow water as a resource.

Always have an overflow for the water in times of extra-heavy rains, and use that overflow as a resource.

6. Maximize living, organic groundcover.

Create a living sponge so the harvested water is used to create more resources, while the soil's ability to infiltrate and hold water steadily improves.

7. Maximize beneficial relationships and efficiency by “stacking functions.”

Get your water-harvesting strategies to do more than hold water. Berms or swales can double as high and dry raised paths. Plantings can be placed to cool buildings. Trees can be selected to provide food.

8. Continually reassess your system: the “feedback loop.”

Learn from your work we begin again with the first principle.

Principles 2, 4, 5, and 6 are based on those developed and promoted by PELUM – the Participatory Ecological Land-Use Management association of east and southern Africa. Principles 1, 3, 7, and 8 are based on my own experiences and the insights gained from Mr. Zephaniah Phiri Maseko and other water harvesters.