

Providing safe drinking water amidst increasing water scarcity

Two thirds of Mali is covered in desert and, due to changes in climate, rainfall is reducing causing this harsh environment to deteriorate further.



Rainwater harvesting tanks in Fana, west Mali, where water is scarce.

Adama, a representative of WaterAid Mali, explains, **“In Mali we have a short rainfall season and it doesn’t have time to infiltrate the ground. If you look at the rainfall patterns, 40 years ago it was 1,000 millimetres a year. Some places now you only have 600 millimetres. This has an impact on the water table. So some wells which were once permanent now dry up.”**

Falling rain is some of the cleanest naturally occurring water. In areas with regular rainfall the collection of rainwater, called "rainwater harvesting" allows people to store rain where it falls, preventing it from running off or being wasted. Rainwater harvesting can also involve directing collected rainwater into underground aquifers, thereby ‘recharging’ the water table.

Fana, in Koulikoro in western Mali, often experiences water scarcity. The area has problems with water: one school, Ecole B, has only one unprotected well for all its needs, which dries up towards the end of the dry season. The head teacher explains, **“When there’s no water we pay for water or those who misbehave are punished and have to go and get water for use in class. The Government don’t provide us with water but we still have the same needs. Drinking, cleaning, washing black boards – all these things. Water is gold – we have to manage it adequately.”**

WaterAid partnered with the Rain Foundation, a Belgian NGO, to design a new system with two rainwater harvesting tanks. Rainwater is caught in a V-shaped gutter attached to the school’s corrugated roof and channelled into the 10 cubic metre tank through a PVC pipe. The cost is £130 per tank, with community contributions of sand, gravel and labour. The project was trialled in Ecole B, which has 525 children. The head teacher noticed the benefits, **“We appreciate the tanks. When it rains we have water. From April to June last year we used water from the tanks.”**

Lessons learned from this pilot project were used to install these rainwater systems in other desert areas, starting with eighteen new tanks. WaterAid and its partners in Mali are also initiating other water conservation projects, including small dams and tree planting, to tackle water scarcity.



WaterAid's mission is to overcome poverty by enabling the world's poorest people to gain access to safe water, sanitation and hygiene education.

Registered charity numbers 288701 (England and Wales) and SC039479 (Scotland)