

Cisterns

A Cistern for a Brother

Some improvement is made when each home has a larger cistern for the storage of non-potable water for washing and some irrigation. In regions where rainfall is adequate, seasonal collection can significantly lighten the load.

The photo below shows a friend standing in front of his plastic 1100-liter potable water storage. The next photo is of a pump designed to lift water out of his cement-block cistern immediately below the pump.



This pump cost 60% less than those currently in use in nearby households, enabling the resident to purchase additional sheet metal to channel rain water into his cistern. In addition to the visible plastic fittings, this pump utilized (a) leather from an old boot, (b) a toy marble, (c) pieces cut from the tread of an old tire.

This location receives an average of about twenty-one feet of rain per year in a six month period with, almost nothing for the other six, making cisterns very practical here.

If cisterns were built round instead of square, you would have 27% more volume for the same perimeter material, and the wall could be thinner. The greater structural support provided by a circle would also offer greater earthquake resistance. This of course would only apply to cisterns built into the earth.

One very important consideration is that if care is not taken, cisterns near ground level could become dangerous breeding grounds for mosquitoes. Proper sealing and screening would be of utmost importance.