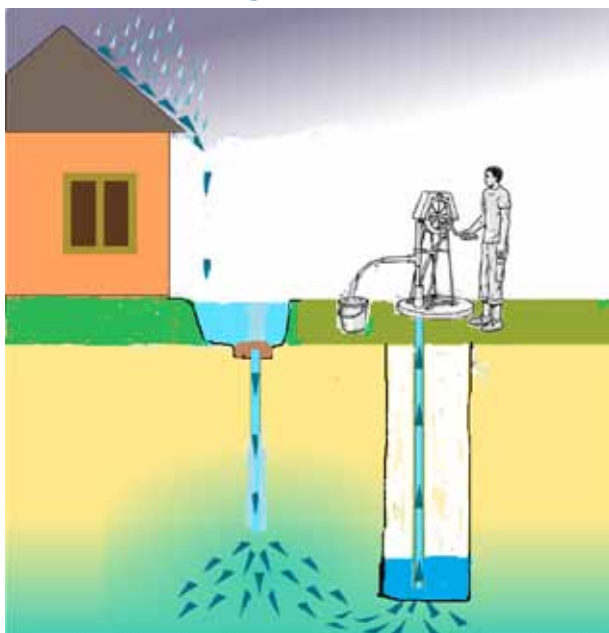


3 Storage/rainwater harvesting - Groundwater recharge

3.2 Tube recharge



Description:

One option to store rainwater in the ground and avoid a well going dry is the so called tube recharge.

Advantages compared to water storage tanks:

- Per cubic meter, a system (pit, well, pump) is 5 times cheaper;
- No water lost by evaporation;
- Much larger storage capacity;
- Always “fresh” water.

Disadvantages compared to water storage tanks:

- Still unknown, needs specific training;
- Needs more field tests;
- Can not be combined with low cost wells and pump if aquifers are over 35 meters deep;
- Does not function in soils with very thick clays/ silty clays;
- Volume of infiltrated water that flows into the well cannot be predicted.

Information:

- Via a sand filter water is injected in the ground (not into the aquifer).
- Eventually water will seep into the aquifer.
- Cost: **USD 5 - 15** (cost of materials for a tube recharge; labour done by family).
- Producers: Info at all SMART Centres.

Top drawing: View of a tube recharge. Roof or surface water flows into a pit. In the pit there is a 3 - 5 meter deep (2 inch) hole filled up with sand and a PVC pipe. At the top a sand and cloth filter.

Bottom photo: Construction of a tube recharge pit with a sand filter and a cloth filter.