

GEOG 371 Rural Water Supply and Sanitation

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Dr. Mohamed Babiker Ibrahim

**Final exam Q(1)**

**Write an essay about the importance and methods of the rainwater harvesting. Give 4 examples from articles of the peer reviewed journals.**

- Rainwater harvesting is one of the most important sources of water supply for drinking and agricultural purposes in places of poor ground water such as the basement complex.
- Methods of rainwater harvesting include roof catchment and building of small dams.

### **Roof Catchment**

- Roof catchment is the most common methods of rainwater harvesting in areas suffer from water scarcity such as the semi-arid areas or that dominated with the basement complex.
- It provides an improved water source to small scatter settlement in rural areas of the developing countries.
- It is a simple method of harvesting rain water by the roof of the house and channeled down through a pipe to a surface or subsurface tank.
- The tank will be covered to protect water from pollutions from dust or animals.
- Rainwater harvesting in some areas is the only means of supplying house-hold with water.
- In certain areas, such as in Indonesia people rely completely on rainwater catchment from roofs.

### **Small Dams**

- Building of small dams is one of the most effective methods of rainwater harvesting to supply water for small communities.
- They have been used to provide water for drinking, agricultural production and to increase the ground water as well as to generate electricity.
- China has been the leader in building small dams since the 1950s.
- Some of these small dams produce few tens of kilowatts which are enough to light a village, power a T.V. and run a pump for irrigation.
- Most of them have been the result of local initiatives, using local labors expertise and receive little or no fund from government.
- Pakistan followed china's example in 1980 and built many small dams.
- In Burkina Faso in West Africa, women built small dams to supply villagers with drinking water during the dry season. Burkina Faso is dominant with basement complex (poor aquifer). As a result, women built hundreds of small dams.