Classification of Rainwater Harvesting Technologies

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Key Message
This paper defines and classifies various types of rainwater harvesting. This paper also indicates how rainwater harvesting will be used by L2 to increase water use efficiency and therefore crop production.

Summary

Poverty and food insecurity is generic to the rural communities of poor countries in the sub-Saharan African region. People in these semi-arid areas usually depend on rainfed agriculture where water and soil fertility are the main factors limiting food production. Rural communities can benefit largely from the use of rainwater harvesting (RWH) techniques.

RWH is defined as the process of concentrating rainfall as runoff from a larger area for its productive use in a smaller target area. A literature review was conducted to study the classification, characteristics and advantages of various RWH techniques. An alternative classification system has been proposed whereby RWH methods are categorized as ex-field, in-field and non-field RWH. All these RWH techniques have the potential to increase available water for crop production and reduce the risk of crop failure.
The application of different RWH systems on different production areas can benefit rural farmers. This paper indicates how L2 will contribute towards enhancing rainwater management and water use efficiency through demonstration of appropriate RWH structures and technologies.