

## Abstract

Rainfall scarcity is a constraint to productivity in arid and semiarid regions of Kenya. This chapter identifies the common rainwater harvesting technologies used in Makueni County, a semiarid region, both for domestic and agriculture production as a way of adapting to climate change and variability. Household interviews were held for 134 households from five villages in addition to collection of secondary data from the area. The results revealed that 30 % of farmers have water tanks in their home, 90 % are members of communal sand dams and ponds, while 70 % use road water harvesting to supplement rain-fed agriculture. The constraints for adoption included lack of labor and skills. Different coping strategies applied by small-scale farmers who practice rain-fed agricultural production in this region include soil moisture retention practices such as terracing and use of sand dams as well as storage of water for domestic use in tanks. This valuable information will provide best home-grown practices and reveal gaps on rainwater harvesting which can be implemented by extension officers and local stakeholders. The adoption of these important technologies can be a basis of curbing related problems under similar conditions.