

**“Factors Affecting Performance of Sand Dams in Nzambani Ward, Kyanika/Maluma
Sublocation, Kitui County”**

Zipporah Mutindi

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Abstract

A Sand dam is a structure built on river to store excess water in rainy seasons for use in drought seasons. They are suited for semi-arid areas. Globally, they are found in Japan, India, Mexico, Australlia, Thailand, SW USA and Brazil with high use in Africa being Angola, Ethiopia, Tanzania, Kenya and Zimbabwe. In Kenya they are mostly found in Kitui with approximately 500 functioning sand dams. They are simple to construct, low cost, low maintenance technologies that retain water and help recharge ground water. They are used for provision of water for domestic and farming use. Water from sand dam is extracted by scooping a hole in the sand or using a slotted pipe buried in the sand that passes through the dam wall, or connected to a simple hand pump situated on the river bank. The aim of this study was to analyze factors affecting the performance of sand dams in Kitui County. The research design used was descriptive using survey and observation. Data was collected by use of questionnaires, which were randomly distributed to the local community. Data was then analyzed to determine the response from the local community on sand dams. This gave information that was used in evaluating their sustainability. This study found poor performance of sand dams in Nzambani Ward. The main factors that led to this poor performance included: minimal adoption of sand dam projects by the local communities, lack of operation and maintenance of sand dams because most of the sand dams had been left unattended to by the local communities, perception that sand dams belonged to donors and limited awareness on the importance of sand dams.to alleviate these challenges this study recommended ensuring operation and maintenance of sand dams and creating awareness to the local communities on the importance of sand dams. These results may be used to ensure adequate water supply for food security.it may also be used in the reduction of conflicts for competing water use demands, increased income, adequate fodder and pasture for livestock.