

Management of water resources in the peri-urban areas of Ruiru District, Kenya

Author: Mugeru, Eunice Wambui

Abstract:

In peri-urban areas of the country, there are numerous and complex problems that confront the residents. Water scarcity is one of the critical problems that deserves most attention. It is a major challenge hindering socio-economic development in these areas. This therefore calls for research to find out how water is managed in these areas. Ruiru District was chosen for the study to fill this gap due to its high population density as significant population working in Nairobi city and Thika towns are shifting to the District looking for places to settle. The high population increases water demand leading to water scarcity in the area. Ruiru District has two Divisions, six locations and ten sub locations. A multistage design involving stratified and random sample surveys were used to come up with the required sample. A household survey approach with the aid of questionnaires and observation record sheets were used to collect data on the major sources of water, their accessibility, reliability and utilization in the area. The study examined the techniques used to conserve water and established the problems the people experience while practicing these techniques. The data collected was analyzed using Statistical Packages for Social Scientists programme and presented in frequencies, percentages and ranking. The study has confirmed that Ruiru District has rapid population growth without a corresponding increase in water sources. The study also established the main sources of water as Nairobi Water Company mains, Community Based Organization's mains, boreholes, wells and rivers. The major problems found were limited access to potable water, inadequate number of water sources and drying up of wells during the dry season. The study revealed that the mean, household water consumption rate in the area was 18.3 liters per person per day. This rate is slightly below the recommended per capita consumption rate of 20 liters per person per day. Water conservation techniques practiced include roof rain water harvesting, repair of leaking taps/pipes, water reuse, use of efficient taps and installation of dual flush toilets, among others. The various limitations that affected water conservation techniques include lack of finances, lack of awareness, dry weather conditions, altitude and culture, among others. Based on the findings it is necessary to provide water at homes so that people involved in providing water can be engaged in other productive activities. Promotion of appropriate technologies such as use of dual toilets, use of efficient taps, drip irrigation and mulching need to be encouraged. There is also need to promote marketing and processing of farm and livestock products so as to increase the people's daily earnings and so alleviate poverty in the District which is directly affecting water conservation practices. There is need to increase public awareness regarding protection of water sources, their use and conservation in the District. Specific efforts should be made through the Ministry of Water and Irrigation and other related actors to increase water conservation awareness programmes to enable the people appreciate the importance of water management in the District.