

## Abstract

The study assesses challenges and opportunities in urban water resource use and management, drawing from a case study material of community water supply systems in Wote Town, Makueni County. Using a Survey Research Design (SRD) both primary and secondary data were collected by use of questionnaires, interviews, photography, use of GIS, observation and the review of relevant literature in order to (1) identify and spatially locate the existing community water supply systems in Wote Town, (2) investigate the socio-economic characteristics of the residents, (3) examine water demand and supply characteristics in Wote Town, (4) investigate peoples' perception of water quality. First, a reconnaissance survey identified and spatially located the community water supply systems and/or points using a GPS. Second, a random selection of respondents from each of the identified water supply point was done. Ultimately, the survey consisted of 80 households. The findings revealed main sources of water for Wote Town are Kaiti River and Water Kiosks served by a borehole. The level of education, type of occupation and level of income of residents have influence on the choice of water source due to cost implication. On average it takes 22 minutes to fetch water from the preferred source located at a mean distance of 0.94 kilometers. Head log (35.8%) and use of bicycles (32.2%) were the most used modes of transport. Others include use of donkeys, water boozers and motorcycles. Besides River Kaiti and Water Kiosks, rain water harvesting (16.2%) was identified as an alternative source of water. More than half of the residents who draw water from River Kaiti used it for selling. The price ranged from US\$ 0.10 to US\$ 0.26 per 20-liters Jerrican. The residents reported some cases of water borne diseases such as diarrhea (23.1%) and typhoid (15.4%). Most preferred water treatment methods were boiling (23%), use of water guard (13%), and chlorination (3.3%) while majority (76%) did not treat the water before drinking. In light of these findings, the study recommends investment in water supply infrastructure such as piped water distribution as well as promotion and improvement of rain water harvesting technologies. Such interventions will address the critical problem of shortage of clean water that threatens the health and well-being of the urban dwellers.