

Abstract

Water from boreholes and dug wells is extensively used in Kwale County, especially by rural communities living away from established market centers, where piped water is commonly available. The study aimed to assess the quality of water in boreholes and dug wells found in Waa location of Kwale County – Kenya. Selection of the boreholes and dug wells was carried out using purposive sampling and simple random sampling. All the seventy one boreholes and wells in Waa location were visited and inspected to determine their sanitary condition and functionality. Twenty eight samples of water that were collected in duplicate from 14 boreholes and dug wells (30% of total number) were analyzed for faecal coliform (*Escherichia. coli*), total coliform count, pH, total dissolved solids, turbidity, colour, total hardness, salinity, chloride content, electrical conductivity, total alkalinity, Ca²⁺ and Mg²⁺ using 3M Petrifilm™ method, pH meter, HACH digital titrator, Total dissolved solids/Conductivity meter, and DR 2000 (HACH) spectrophotometer at KIMAWASCO laboratory. The study revealed that 32% of the boreholes and dug wells have either permanently or temporarily failed to discharge good quality drinking water to the local community reliably. This state has been attributed to negligence from the relevant authorities and agencies in terms of water quality monitoring and low level of community involvement in the development of these water projects. The County government of Kwale and water resource providers should build the capacity of the community in water resource management, introduce desalination and water treatment plants to provide safe drinking piped water.