

Water safety and associated public health impacts in upcoming and informal urban settlements in Zimbabwe: case of Amsterdam Park in Harare

Edmore Maruta, Mark Matsa, Oshneck Mupepi and Beauty Dzawanda

Abstract

Water pollution issues in emerging residential areas of developing countries' cities are a critical issue that deserve optimum attention. Zimbabwe has had rapid urban settlement expansion since the fast-track land reform decade of 2000–2010 which released hitherto privately held urban peripheral land for urban use. This has come with service delivery challenges which militate against welfare Sustainable Development Goals (SDGs) achievement. The research assessed water safety and associated public health impacts in Amsterdam Park residential area in Harare South, Zimbabwe. A descriptive case study research design employing both qualitative and quantitative data collection techniques was adopted in this research. Water quality laboratory tests, questionnaires, interviews and observations were used for data collection. Microsoft excel 2013 and content analysis were used for data analysis. Findings indicated that water being used by Amsterdam residents has more than recommended levels of ammonia, E. coli and turbidity. Deviation from normal colour, odour, oily froth and abnormal salty taste was confirmed as evidence of water contamination in wells used by Amsterdam Park residents. Seepage from the adjacent cemetery and unlined septic tanks developed by residents and from open domestic waste dumps were major water contamination sources confirmed in Amsterdam Park residential area. Diarrhoea and stomach pains were found to be most dominant signals of water contamination-related public health problems in the residential area. No measures have been put in place to counter public health challenges faced by residents of Amsterdam Park mainly because the area is not yet officially recognized, thus not yet being considered in the city council's development plans. The research concludes that water-borne diseases will proliferate in Amsterdam Park unless proper servicing and other measures are prioritized to avoid use of unsafe water sources. The study recommends Harare City Council to consider supporting development of Amsterdam Park residential area so that it achieves required public health and safety standards as provided for by

the Public Health Act and also makes progress towards the achievement of Sustainable Development Goals 3 and 6.

Key words:Water safety, Public health impacts, Groundwater contamination, Unsafe water sources.