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CRITICAL ISSUES CONCERNING DRINKING WATER AND SANITATION MANAGEMENT IN VILANCULOS (MOZAMBIQUE)

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Abstract

The research work aimed at analysing the drinking water quality in Vilanculos (Mozambique) and at investigating the influence of poor sanitation management on drinking water quality. The purpose was to understand the reasons of water source contamination and re-contamination in the water supply chain, in order to define strategies to control source contamination and to suggest practical ways for reducing the risk of recontamination.

A first phase of microbiological drinking water quality monitoring allowed identifying the most critical areas to be valued in a next sanitation assessment activity, carried out by means of interviews to stakeholders and by direct observation.

The microbiological analysis carried out at the source showed that only in few cases there is compliance of water samples with the standard limit for all microbiological parameters. It was also found that the cases of compliance with the regulatory limit decrease moving from the source to the consumer, meaning improper hygiene habits in the supply chain. Microbiological contamination shows a potential danger for the health of consumers.

As regards excreta and wastewater management, a prevalence of unimproved sanitation facilities with direct infiltration into the ground and a bad management of septic tanks were identified.

In order to improve population's health conditions, a preventive approach should be implemented, including both the improvement of the structural characteristics of latrines and their management and the improvement of water supply infrastructures. Moreover, good practices at the household level resulted to be an important strategy to preserve water microbiological quality.

Key words: drinking water, microbiological analysis, Mozambique, water chain, water source contamination

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