

Review of: "Examining Water Use and Sanitation Practices in Rural Schools of Chegutu District, Mashonaland West Province, Zimbabwe"

Sudhakar Rao¹

¹ Indian Institute of Science

Potential competing interests: No potential competing interests to declare.

The manuscript by Chipatiso examines water usage and sanitation practices in rural schools of Chegutu District, Mashonaland West Province, Zimbabwe. The author provides a detailed introduction and literature review in the study. The section (2.1) on water supply and sanitation program in developed countries can be deleted as it is not of much relevance. Section 2.1.1 on Impact of inadequate WASH facilities in rural schools can benefit from a greater focus. Does the author wish to focus on African continent or some geographical region (Zimbabwe). Also, statistics is important and must be provided. Data on quality and quantum of drinking water and sanitation facilities in the selected region of Africa is important. The author should separate data of rural households and rural schools. Maps and bar charts are useful. Correlations between water, sanitation, hygiene and incidences of microbial contamination on human health should be examined. After looking at a large picture of the selected African region, the author can zoom to his case study and see how the schools fare in respect to the global scenario in the Conclusion section.

Regarding the case study, Section 4.4 on Water use in schools can greatly benefit by providing water quality data. Basic data of TDS (total dissolved solids), pH, TSS (total suspended solids) and microbial contamination will benefit the study. Equipment for measuring TDS, pH and TSS are not expensive and should be available in local Public Health Laboratories. Water quality data should be benchmarked against national standards. Correlations between water (microbial contamination in particular) quality and student health can be generated. Usage of chlorination measures at school levels can be suggested if it is not being practiced. The Section (4.5) on Frequency of water use will benefit if the daily water consumption (liters) for drinking water and sanitation needs is examined. The storage capacity of the tanks in each school must be provided. Frequency of supplying water to the water storage tanks can be examined. This is expected to depend on supply of electricity, groundwater levels, and functioning of the tube well pump. Availability of financial and human resources to maintain working tube wells is important. The author can also examine how many days in a year are the tube wells functional. Adequacy of the water supplied as per WHO/UNICEF/Country norms as against the actual water supplied can be examined. The authors can also examine water availability in schools during dry and wet seasons. Water quantity and water quality are important parameters for the success of WASH program.

I understand that the above-mentioned studies need major re-working of the manuscript. In my opinion, it will benefit the study and will help local and regional administration towards better implementation of WASH program in schools and households.

