

## ISSUES IN DRINKING WATER QUALITY IN AREAS WITH NO PIPE BORNE WATER SUPPLY

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### ABSTRACT

Even though many areas of the country is covered by the pipe borne water supply by the National Water Supply and Drainage Board (NWSDB), Sri Lanka, still there is a number of areas where no municipal pipe borne water supply exists. Hence the residents in such areas have made their own arrangements to supply themselves raw water from natural sources such as streams and lakes. The quality of this water is highly questionable as there is no regular water quality monitoring is done. The use of degraded water especially for the potable use cause serious health problems and hence affects the wellbeing of the residents in these areas. Consequently, it further affects the socio economic development of the entire country.

This research project was conducted in the areas with no pipe borne water supply in order to investigate the prevailing issues in drinking water obtained from different sources such as streams and lakes. Data was obtained by conducting a questionnaire survey in two none pipe borne water supply areas namely Malawa (Ratnapura) and Helgoda (NuwaraEliya) in Sri Lanka.

It was noted that the peoples' understanding and awareness on quality of their drinking water is less. The research highlights the need of conducting regular water quality monitoring programs and implementing the water quality mitigation procedures to ensure the quality of drinking water in these areas without taking no responsibility based on the perception that there is no such requirement as these areas are not covered by the municipal water supply. Majority of the residents attempt to improve water quality through boiling whereas very less percentage is following filtration which is also equally important to ensure the safe quality of drinking water. Hence research suggests the need of encouraging the residents to utilize other water purification methods such as filtration in order to ensure the safe quality of drinking water. Furthermore, it is of crucial importance to facilitate community based technologies for such treatment methods in the areas and conducting regular awareness programs to educate the residents. Moreover, there is a growing need for efforts to mitigate both point and non point sources of pollution to the water sources in these areas.

**Key words:** None pipe borne water, Pollution, Monitoring, Mitigation