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Determination of potentials for safe drinking water supply using present socio-economic criteria in a rural sector, Kegalle District, Sri Lanka

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Evaluation and monitoring of existing socio economic status is vital for the improvement of water supply and sanitation especially in rural scale. This serves as a driven tool to understand and identify rural scale geographic locations in developing nations where there is less access to water supply, water consumption, hygiene and sanitation. The present study was carried out in Hakbellawaka GND in Kegalle District, Sri Lanka with the objective of identifying socio-economic conditions and potentials for the improvement of water supply and sanitation. A questionnaire survey was followed by selecting 100 houses randomly to explore the socio-economic background and water consumption pattern. In socio-economic analysis, (85%) of Sinhalese and (78%) of families were headed by females. The entire sampled population was a mixed economic based population, in which forty-two (42%) of people earned monthly income of LKR.10000-20000 and only (3%) of people earned above LKR 50,000. Water consumption and sanitation patterns showed that (85%) of the households had water sealed lavatories. Furthermore, (34%) depended on community based water supply schemes and (14%) used private protected wells. Considering safe drinking water consumption (92%) people used boiling and filtration via cloth filters as purification methods. Ninety five (95%) respondents were unsatisfied with present water sources due to inadequate quantity and quality. Therefore, they expected an improvement of the existing water supply facilities. Hence the satisfactory majority of the respondents (96%) showed the willing to acquire new water connection and to pay a monthly water bill. Seventy two percent (72%) of mentioned that water is insufficient during dry seasons and causes to reduce the water quality. Conclusively, the study revealed that low economic status among villagers at present. In addition, criteria such as less access to treated water, high demand for treated pipe water, insufficiency in water facilities and willingness to pay the water bill highlighted the importance and potential for uplifting the safe drinking water facilities. Hence, a new drinking water supply scheme with treatment plant is proposed in order to minimize the issues of quantitative and qualitative drinking water.

Keywords: Drinking Water Supply schemes, socio economic conditions, water and sanitation improvement,

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