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Identification and evaluation of current socio-economic conditions for improvement of water supply and sanitation in rural areas in tropical regions; A study from Sri Lanka

B. K. A. Bellanthudawa^{1*}, L. Wijesinghe², W. D. Darshana², J. M. S. N. Jayasooriya², S. R.Y. S. S. B. Sundaraperuma³, S. D. K. S. Kumara³, N. M. S. K. Nawalage³ and T. C. B. Samaradiwakara³

¹Department of Coastal Resources Management, Faculty of Fisheries & Ocean Science, Ocean University, Sri Lanka

²National Water Supply and Drainage Board, Sri Lanka

³Water Supply and Sanitation Improvement Project, Sri Lanka

*aravindabellanthudawa@gmail.com

Empowering the water supply and sanitation is a concern in Sri Lanka. Thus, present study was carried out on Anhettigama area in Deraniyagala Divisional Secretariat Division (DSD) in Kegalle District to identify the socio-economic status in the study area for implementing a water supply and sanitation improvement project and identify crucial issues to implement water supply. A semi-structured questionnaire survey was conducted for households (n=50) for assessing the social-demographic and economic background of the community through random sampling technique in project impact area. Data analysis was conducted using Microsoft Excel 2013 software to compare the responses in graphical presentations. Majority (92%) indicated that their livelihood pattern as mixed economic. 86% of the families were headed by males whereas 14% families were headed by females in the project area. Project impact area was composed of 83% Sinhalese and 17% Tamil families. In terms of water consumption patterns, 34% of houses used existing "Suhada" water supply scheme and 66% fulfilled their water requirement from private protected and unprotected wells located within their premises. Surface well water usage was 32%, which was not safe unless subjected to disinfection before drinking. 72% of the respondents mentioned that water was insufficient during dry seasons, which may reduce the water quality as well. Majority of the respondents (92%) mentioned that they were not satisfied with their present water supply scheme. Since current drinking water has not undergone any treatment method, 96% people used domestic purification methods such as artificial filtering and boiling. About 84.9% of the households had proper sanitation facilities while 9.2% of the people did not have toilets. Out of these 84.9%, 50% accounted for water sealed toilets with cistern and 34.9% accounted for water sealed toilets without cistern. Since the current water supply was insufficient, 97% people were willing to pay a monthly water bill. 16% of households received the government food subsidy of Samurdhi given for households living below the official poverty line with regards to economy. 35% of the people were involved in professions in the private sector, 26% in agriculture, 12% were government employees while unemployed population was 5%. In conclusion, there is a necessity and high demand for pipe borne water, sanitation and economic development. Incorporation of a water supply and sanitation improvement project is a sustainable solution.

Keywords: Sanitation, socio-economic, tropical regions, water supply

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