

**SUSTAINABILITY: AN ASSESSMENT OF A COMMUNITY BASED
RURAL WATER SUPPLY SCHEME**

by

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Abstract

Sustainability has become a widely discussed aspect in the agendas of programs related to infrastructure development projects. Water supply and sanitation (WATSAN) programs are no exception in this respect. As operation and maintenance is far more important when it comes to WATSAN programs, the significance of sustainability is also higher.

The application of demand-responsive participatory approaches in the implementation of rural water supply projects can be seen as an attempt to enhance sustainability. Although there are various post-project evaluations such as benefit monitoring evaluation studies related to such projects, it is doubtful whether they investigate deeply into the aspect of sustainability. A thorough investigation of sustainability of such projects will not only be useful in enhancement, prediction and comparison of same but also be used in formulating implementing strategies in similar projects in future.

In this research, an attempt has been made to measure and assess sustainability of a community based rural water supply scheme. Thirteen sustainability indicators have been developed and comparisons made for four such schemes implemented in the Anuradhapura district. One scheme has been selected as the benchmark and further investigations have been carried out.

By comparison of sustainability indicators with the respective attributes of the schemes, an effort was made to link and find relationships. By doing so, favorable characteristics of schemes leading to greater sustainability has been found out. It is considered that the research findings can be used in implementing future projects with greater sustainability.

It was found that low consumption of water and deterioration of water quality threatens the sustainability of the schemes. On the other hand, good CBO leadership has a major positive impact on sustainability. Sense of ownership of consumers in community based programs act as a rigid foundation for sustainability

An absolute measurement of sustainability has not been possible due to the complexity of the phenomenon. However, by the use of sustainability indicators it is possible to compare and contrast sustainability of various schemes. It is warmly invited to carry out further research work in fine tuning the definitions of various sustainability indicators as well as developing new ones to complement the void space.