

**ASSESSMENT OF SUSTAINABILITY OF COMMUNITY
WATER SUPPLY PROJECTS : A CASE STUDY FROM
JAFFNA, SRI LANKA**

Y.Thayaparan^{*} and M.Thushyanthy^{**}

^{*}Project Manager, Water Supply and Sanitation Improvement project (WaSSIP), Kilinochchi, Sri Lanka. kythayaparan@gmail.com

^{**}Department of Agricultural Engineering, Faculty of Agriculture, University of Jaffna, Jaffna, Sri Lanka. thushym@univ.jfn.ac.lk

Abstract

Access to water resource is a right of the people and it is a basic requirement of human life. In Sri Lanka, the National Water Supply and Drainage Board (NWSDB) is the principal authority providing safe drinking water and sanitation services. However, NWSDB finds difficult to cover the entire population of Sri Lanka. Therefore, community based water supply schemes have been introduced as a solution to the above problem in Sri Lanka. Mathagal rural water supply scheme consists of three community based organizations in Sandilipay DS Division, Jaffna. The objective of the study was to evaluate the sustainability and water safety challenges faced in community managed rural water supply schemes. Totally 85 out of 988 beneficiaries and 30 stakeholders were selected randomly to conduct a questionnaire survey. The questions were asked based on five sustainability elements identified such as technical, financial, environmental and health, social and Institutional sustainability. The average sustainability obtained a value of 73%, 67% and 63% for Mathagal East, Mathagal South and Mathagal West respectively. Social sustainability is the highest provision and environmental and health is the lowest provision amongst all the five elements of sustainability. Also, 62% of women involved in monitoring activities in sustainable manner. Mathagal East has higher women

involvement in the water supply scheme. Mathagal East Community Based Organisation (0.87) has similar institutional capacity like NWSDB (0.85) and Department of Community Water Supply (CBO)(0.87) and it is the one which controls the overall operation and maintenance activities of Mathagal water supply scheme in sustainable manner. The findings of the study revealed that CBO faced challenges to involve community participation in Rural Water Supply system as community have lack of technical capabilities. However, the carelessness of safe water, lack of communal coordination or network, lack of technical knowledge, challenges for community leader and gender equity in term of cultural barriers, and expecting money for all social responsibilities were also identified as main reasons for poor contribution of local people through CBO managed water supply.

Key words: Safe drinking water; Community-based organization; Rural water supply; Water safety challenges

Introduction

Access to water resource is a right of the community and it is basic requirement of human life. With this in mind, the United Nations Millennium Development Goals (MDG) aims to reduce the proportion of People without sustainable access to safe drinking water and basic sanitation, WHO, 2010. Provision of drinking water supply and sanitation is a government priority and periodic targets have been set for the proportion of the population that should have access to safe drinking water and improved sanitation services (Mingyuan, 2015). Thus, the community participation is one of the key measures which are keenly followed by the government in successful water deficiency reduction programs. The National Water Supply and Drainage Board (NWSDB), which functions under the Ministry of Water Supply, is the principal authority providing safe