6 CLEAN WATER AND SANITATION

CASE STUDY TITLE

Quality Standard and Assessment for Village Water Supply Systems (QSVS)

AT A GLANCE

COUNTRY

- Thailand

LEVEL

- National

SDG ADDRESSED

- SDG 6 - Clean Water & Sanitation

SUMMARY

The objective of the case study is to show how the Thai Quality Standard on assessing village water supply systems (QSVS) - based on WHO Drinking Water Quality Guidelines – were used to develop a self-assessment tool.

The new tool allows the collection of structural and non-structural components of village water supply systems that address problems and causes of water supply system function and performance, directly supporting the achievement of SDG target 6.1 "achieve universal and equitable access to safe and affordable drinking water for all" by ensuring that the people of Thailand receive good quality and safe water for consumption. "

The agencies involved were the Department of Health, Department of Groundwater Resources, in collaboration with Provincial Water Work Authorities and others. This new tool identifies problems and causes to find proper solutions to improve water supply efficiency and performance in a community.

As a result, people in the rural areas can have good water quality and supply systems with affordable prices. The self-assessment tool allows Local Administrative Organizations to understand the impact level of quality standards in water supply systems. These guidelines improve the quality of each component to provide clean water to customers efficiently.

BACKGROUND

Thailand has a population of 66 million, more than 60% rely on village water supply systems which are operated by communities or local governments.

More than fifteen years ago, the Department of Water Resources decentralized the village water supply systems to local administrative organizations. The first strategy of the National Water Resources Strategy Plan is to improve village water supply systems which corresponds to SDG 6.1 target of achieving universal and equitable access to safe and affordable drinking water for all.

STRATEGY

To address the problems, the department has set up a working group comprising of representatives from water supply agencies such as the Department of Health, the Department of Groundwater Resources and the Provincial Water Work Authority. They drafted the Quality Standard on assessing village water supply systems which are based on WHO Drinking Water Quality Guidelines. Through consensus, the final draft was presented at a workshop on 23rd August 2018. There were more than 120 participants who were representatives from, government and non-governmental organizations: Department of Local Administration, Department of Health, Public Works Department, Water Supply Association of Thailand, Local government among others attending the workshop to share their views, comments and suggestions.

RESULTS & IMPACT

The village water supply system assessment form comprises 86 questions designed to collect information on five major categories: Raw water source, Water treatment unit and water distribution, Operation and maintenance, Water supply quantity pressure and quality and Management. There are two types of evaluation forms: (I) Water supply from surface water; and (ii) Water supply from ground water.

Each category was weighted by experts using the AHP (Analytic Hierarchy process) method. The calculation uses a weighting score method for all categories and evaluates the scoring on an excel sheet. The results showed the categories and their overall scores. Finally, the outcomes were expressed in five levels: A: very good, B: good, C: moderate, D: poor and E: very poor. The QSVS can be used by more than 7,500 LAOs comprising of 75,000 villages in Thailand.

CHALLENGES & LESSONS LEARNED

The Self-assessment tool should be simple for local community personnel to understand and use in a context of nationwide application. The draft assessment form for village water supply systems was tested in 220 villages in 42 provinces throughout Thailand. The lesson learned is that it is important to create partnerships and welcome technical and practical knowledge from local communities and national ministries in the creation of standards. Their comments and suggestions are valuable.

POTENTIAL FOR REPLICATION

The quality standard and self-assessment approach can be replicated in other locations by adjusting the evaluation form related to their water supply system needs.

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