

Recommendations for water supply projects in developing countries: A case study in Amphoe Sattahip (Thailand).

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ABSTRACT

This Master Thesis aims to provide some general guidelines and recommendations to take into account in the design and development of water supply projects in developing countries. These general guidelines have been developed from the lessons learned during the carrying out of a real case study in Amphoe Sattahip (Thailand).

In the first part of this report the case study carried out in Amphoe Sattahip is presented. This case study aims to assess the actual situation regarding water supply in Samaesarn, a sub district belonging to Amphoe Sattahip (Thailand). The particular characteristics of the water supply in Amphoe Sattahip make it different from most of the provincial water supplies in Thailand, as it is managed by a private company. Inside Amphoe Sattahip, Samaesarn sub district has also particular characteristics, as not all the households in the sub district have connection to the piped water supply system.

Information was established by means of personal interviews within Samaesarn population following a model questionnaire on water uses. Information about Universal Utilities Co. Ltd. the private company that manages Sattahip Waterworks, and the provincial water supply background in Thailand has been also collected to make a complete picture of the situation. All this information has been exposed in this report and analyzed in a very simple way. From the analysis different existing problems regarding water supply in Samaesarn sub district and their possible causes have come out. These are for example the impossibility to connect to the piped water system for those families with less means due to high price of the connection fee; the lack of an alternative source of quality water for those households that are still not having connection to the piped water system; and the distrust in the quality of piped water for drinking purposes, possibly due to the bad appearance of the water (high turbidity).

The conclusions are that the distribution system needs enlargement and the water supply quality improvement. The recommendations are to solve some of the problems and to improve the actual situation regarding water supply in Samaesarn sub district by provision of a loan system for those people that do not have enough means to pay the price of the connection fee; by improved appearance of the piped water by trying to reduce the turbidity levels in the production of drinking water; and by improved water tightness of the distribution system.

The second part of this report consists of a chapter of lessons learned. The aim of this last chapter is to draw some general guidelines and recommendations from the case study carried out in Amphoe Sattahip that could be useful in the design and development of other different water supply projects in developing countries. These lessons learned based on the experience have been rounded off with some specialized readings.