

**Thesis title:** Agricultural Water Management of Farmer at Ronghin Weir,  
Ban Don Ngoen, Oi Sub-District, Pong District, Phayao Province  
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### Abstract

This research aimed to study (1) the general information of Ronghin Weir farmers on agricultural water management at Ban Don Ngoen, Oi Sub-district, Pong District, Phayao Province, (2) the agricultural water management of the farmers, (3) the farmers' participation in the agricultural water management, and (4) successful factors in the agricultural water management of the farmers.

The population and samples were 174 farmers who registered with the Department of Agricultural Extension and were members of Ronghin Weir agricultural water management group in which the data were collected via questionnaire. Moreover, 3 additional individuals, who are the leaders of the agricultural water management group, were selected through purposive sampling methods. The data were collected using an in-depth interview. The quantitative data were analyzed and expressed in frequency, percentage, range, mean, and standard deviation. Furthermore, the qualitative data were analyzed using content analysis.

The finding showed that (1) most farmers are male with an average age of 54.93 years old and are married. Most farmers have education levels at 4th grade. They are not volunteers and do not have positions as community leaders, but they are members of different farmer groups who have occupations involved with agriculture. The farmers have more than 1 sources of loans as well as an average agricultural area of 15.77 rai (1 rai=1,600m<sup>2</sup>). (2) For the agricultural water management, it was found that the group has a structure of management committees, clear regulations/rules in water management, and a leader accepted by the group members. Moreover, the members would perform agricultural activities following the water management plan as well as integrate the local wisdoms into the agricultural water management of the group. The group has its own fund and is also supported by many sectors and agencies leading to an improvement of the well-being of the group members and communities in terms of economic, social, and environmental aspects. (3) For the participation of the group members, it was found that the participation in the operation and regulations/rules regarding to the agricultural water management was at high level. For the participation in planning, problem solving, as well as evaluating and following up work, the results showed that the farmers had a medium level of participation. (4) The successful factors in the agricultural water management were divided as follow: 1) the internal factors, which included the group has good members and an accepted leader, has great cultural and traditional influences, and has clear regulations/rules; 2) the external factors, which included many sectors and agencies who supported the group with knowledge, funds, or resources.

**Keywords:** Participation, Successful factors, Agricultural water management,  
Phayao Province