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KEY WORD : RESERVOIR / WATER RESOURCE / PLANNING

SURINTORN JARUSMATUSORN : THE STUDY OF AN APPROPRIATE GUIDELINE FOR WATER PLANNING AND MANAGEMENT OF THE SMALL MULTIPURPOSE PROJECT ; A CASE STUDY OF HUAY AONG KOTT PROJECT, SOMDETHAROEN SUB-DISTRICT , NONG PRUE DISTRICT , KANCHANABURI PROVINCE.) THE THESIS COMMITTEE CONSIST OF SUCHAT NAVAGAVONG M.Sc., SOMKIRT PRACHAMVONG Ph.D., PIYAKARN TIAHTHISUB M.Sc., KOBKAEW MANOMAIPHIBUL M.Eng., MANAD KAMNIRDMANEE M.Eng. 255 PAGES ISBN 974-663-188-8.

The purpose of this case study was to review the progress of a water planning management project as a model for development of future guidelines. Factors evaluated in this study are 1) Social-Economic positions, 2) occupations, 3) knowledge levels, 4) agricultural technology, 5) application. 6) vision, 7) potentiality of water usage and 8) water management. Data was gathered by interveiwing 196 farmers residing in the study area. Data was analyzed ANOVA and T- test.

Results shoud the average age of farmers was 42 - 45 years , most were male. Family size was 4- 5 members and the highest education was pratom 4. Most farmers had rights to the occupied land and had invested in the cultivated areas. The major profession for most was farming. A minorny worked as employees. Knowledge of farming was transfered from eldcrs. Use of pesticide was the major method used in plant cultivation. Farmers had moderate professional problems and solved these by consulting with neighbors. Normally, farmers divert water from irrigation canals to their land. Water reserviors have problems with insufficient water levels and irrigation canals. Water in the water reserviors is inappropriate for drinking due to poor quality. Farmers major problems are limited knowledge about irrigation and kitchen gardening. If government agencies want to collect a water usage fee, farmers pay less than 5 baht/rai/season in exchange for sufficient water. Farmers liked the Huay Aong Kott Project and Government Agriculture Promoting Officials involved and need a lot of help from them. After commencing the project, farmers' incomes increased and some money was saved. Farmers recommend that water reserviors be enlarged more water distribution engines be installed , shallow reserviors be dredged and government officials be required to help with water usage and capital issues.

This study found that the water supply is insufficient for the demand of total cultivated area. To reduce the shortage and loss of water. The following recommendation are purposed 1) transmit water through pipelines , 2) find new water resources ,3) educate farmers on irrigation techniques , 4) cheqe shallow reserviors and waterways, 5) improve the quality of the land around project areas.