THESIS TITLE : THE ROLE OF NAMPROM IRRIGATION PROJECT, CHAIYAPOOM PROVINCE, IN DEVELOPMENT ADMINISTRATION FOR AGRICULTURAL WATER MANAGEMENT.

AUTHOR : MR. PONGSAK NASORN

THESIS ADVISORY COMMITTEE :

.....Kriangsak Kiewying.....Chairman

(Associate Professor Kriangsak Kiewying)

.....Niphon Chandrapho.....Member

(Assistant Professor Dr.Niphon Chandrapho)

ABSTRACT

The objectives of this study are (1) to determine the opinion of government officials, working in the irrigated and non-irrigated areas, on the factors which affected the capacity in water management of the irrigation project, (2) to determine the farmer's opinion on the factors which affected the capacity of the project and the capacity in agricultural water management of the project, (3) to determine the correlation between the factors which affected the project's capacity and the capacity of the project in agricultural water management, (4) to determine the levels of importance of the factors which affected the project's capacity in agricultural water management, and (5) to analyse in order to find the appropriate ways to attain a higher capacity in agricultural water management of the project.

The population of the study consisted of 63 government officials, working in both irrigated and non-irrigated areas; 9,148 farmers from irrigated area and 11,991 farmers from non-irrigated area. The total sample of the study is

composed of 263 people, including 63 government officials, 100 farmers from irrigated area and the other 100 farmers from non-irrigated area. In order to obtain 200 farmer sample, the village were first selected using the incidental random sampling method. The number of farmers, 100 each from irrigated and non-irrigated areas were later selected using the formula of Taro Yamanae. The four-level response of closed-ended questionnaires were administered to gather the data from March to May 1998. The SPSS program was used to determine the percentage, mean, standard deviation, correlation coefficients (Pearson's Product Moment Correlation) and multiple regression with enter and stepwise methods.

The results indicated that

1. According to the government officials' opinion, all factors under investigation affected the project's capacity at the percentage of 54.0 and 46.0 respectively.

2. There was no significantly different in the opinion of the government officials on the project's capacity when they were classified by their work position, their educational level and years of experience working in the area of irrigated water supply.

3. According to the opinion of farmers from the irrigated and non-irrigated areas, the mean and standard deviation of the factors affected the project's capacity were 2.04 (SD=0.30) and 1.90 (SD=0.30) which were considered "low". When the opinion of the total number of farmers from both irrigated and non-irrigated areas was investigated, the mean and standard deviation of the factors affected the project's capacity were 1.97 (SD=0.35).

4. The opinion of farmers from the irrigated and non-irrigated area on the project's capacity in the administration of agricultural water management was considered "low" with the means and standard diviations of 2.02 (SD=0.39) and 1.79 (SD=0.28) respectively.

When the opinion of all the farmers in this study was examined, the mean and standard deviation of 2.00 (SD=0.40) were also considered "low".

5. There were the correlations between the following factors : engineering structure, technological and agricultural extension, farmer cooperation, information, information dissemination, public relations, decision making, and the capacity of the project in the administration of agricultural water management. The correlations were statistically significant ($P<0.05$).

6. In the irrigated area, decision making, information, information dissemination, public relations, engineering structure, farmer cooperation, technological and agricultural extension were found to affect the project's capacity in the administration of agricultural water management. These factors were ranked from the highest level of the lowest level based on the standardized regression coefficient.

7. In the non-irrigated area, technological and agricultural extension, engineering structure, information, information dissemination, public relations, decision making, and farmer cooperation, were found to affect the project's capacity in the administration of agricultural water management. These factors were ranked from the highest level to the lowest level based on the standardized regression coefficient.

8. For the whole area of the project, technological and agricultural extension, decision making, information, information dissemination and public relations, were found to affect the project's capacity in the administration of agricultural water management. These factors were ranked from the highest level to the lowest level based on the standardized regression coefficient; whereas farmers cooperation and engineering structure were found to equally affect the project's capacity.

9. On the basis of the result of the multiple regression analysis using the stepwise method, to attain higher capacity of the project within the irrigated area, attention should be specially paid to the decision making. However for the non-irrigated area, attention should be paid according to the following order of importance : technological and agricultural extension, engineering structure, information, information dissemination, public relations, and decision making.

To attain higher capacity of the whole project area, attention should be paid according to the following order of importance : decision making, information, information dissemination, public relations and farmer cooperation.