

Suchira Mattayaphutren 2007: An Analysis of Rice Production in Royal Rainmaking Area, Amphoe Sikhio, Changwat Nakhon Ratchasima. Master of Science (Agricultural Economics), Major Field: Agricultural Economics, Department of Agricultural and Resource Economics. Thesis Advisor: Assistant Professor Nongnooch Poramacom. Ph.D. 118 pages.

The objectives of this research were to study the economic effect of Rainmaking in Lamtakhong River Basin, on rice growing farmers in Amphoe Sikhio, Nakhon Ratchasima, Crop Year 2006/2007, to study cost and return, and to analyze production factors and output using Cobb-Douglas production function, comparing of irrigation area and rainfed area. The data used in this study were obtained from interviewing 60 farmers.

The analytical results showed that the cost of production in the irrigation area had higher than the rainfed area. The irrigation area had the cost of production equal to 4,024.06 baht. For the rainfed area had the cost of production equal to 3,262.80 baht. The cost of production equal to 3,263.71 baht when cost of production combined with rainmaking operation cost. The return of production in irrigation area had the profit per rai higher than the rainfed area. For the result of production function showed that the quantity of seeds, labor, chemical value, the numbers of rain date and shortage of water had significantly affected on the change of the rice production in the irrigation area. Labor, the numbers of rain date and shortage of water had significantly affected on the change of the rice production in the rainfed area. From t-test analysis the numbers of rain date between irrigation area and rainfed area were significantly different.

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