

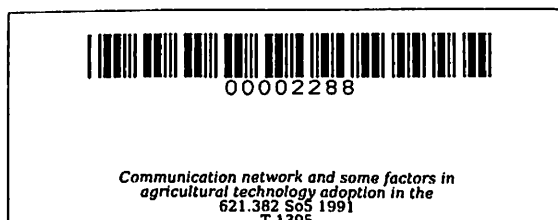
COMMUNICATION NETWORK AND SOME FACTORS IN AGRICULTURAL
TECHNOLOGY ADOPTION IN THE KAO HIN SORN RESEARCH
AND DEVELOPMENT PROJECT, EASTERN
REGION OF THAILAND

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~~C~~ommunication network and some factors in agricultural
technology adoption in the KAO HIN SORN RESEARCH
AND DEVELOPMENT PROJECT, EASTERN
REGION OF THAILAND

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ABSTRACT

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This study investigated the communication networks and factors related to agricultural technology adoption among the respondents of two villages of Kao Hin Sorn Research and Development Project area in Thailand. Its major objective was to determine the relationship of three factors: communication network, individual characteristics and media exposure and agricultural technology adoption. Both direct and indirect influence of the three factors toward the KARDC's agricultural technology adoption were studied.

All of the heads of households in the two selected villages were respondents of this study. These respondents were interviewed using an interview schedule with five parts. The first part asked about the respondents' demographic, socio-economic and agricultural characteristics. The second part sought information on media ownership and media exposure. The third part stressed the who-to-whom sociometry to identify the communication links of the individual with the others in a network. The fourth part dealt with characteristics of the

agricultural technology base on the respondents' perception of these technologies. The last part asked about farmers' practices of the selected agricultural technologies promoted by KARDC within the fiscal year 1988-1989. The network analysis was accomplished with the UCINET program while the descriptive statistics and hypotheses testing used the SPSS/PC + program.

The researcher found that there were significant differences in interpersonal communication network indices between the two villages for betweenness, openness and diversity. There were no significant differences in connectedness and integration. This was significant in that respondents differed mostly in socio-economic and agricultural characteristics.

Correlation analysis revealed that some variables of individual characteristics had a significant relationship with some variables of the interpersonal communication network indices at the 0.05 level specifically, betweenness and connectedness had a positive correlation with income, organization memberships and irrigation system. Farm ownerships were correlated with connectedness. Openness was correlated with electricity available and plant cultivation.

In testing the three factors, the investigation found that they were all positively related with agricultural technology adoption as well as the characteristics of technology.

Interpersonal communication network variables had positively significant relationships to agricultural technology adoption. These

variables included openness and diversity in the demographic, socio-economic and agricultural characteristics. They were not related with betweenness, connectedness and integration. However, betweenness, connectedness openness and diversity in income and electricity available were related to the characteristics of agricultural technology as perceived by the respondents.

The individual characteristics, especially main occupation, secondary occupation, organization membership funding sources irrigation system, plant cultivation and livestock and fishery had a correlation with the technology adoption. However, some of these variables were positively correlated with the characteristics of technology including organization membership, irrigation system, plant cultivation and livestock and fishery. Otherwise, the farm ownership, income and electricity variables were also correlated.

Media exposure, on the other hand was related with technology adoption in crop production, particularly radio program, demonstration plot in village and training attainment of KARDC but was not related with total technology adoption. However, results indicated a relationship with the characteristics of technology in the case of newspapers and magazines in mass communication, village captain and formal meeting in interpersonal communication and demonstration plot in villages, training attainment and publication in KARDC Media.

Finally, results showed a significant relationship between every agricultural technology characteristic and every technology adoption.

The correlation coefficient (r) was found to be highest for each pair of technology.

The results of the hypothesis testing showed that these three factors directly affected agricultural technology adoption and indirectly affected through, the intervening variable, the characteristics of agricultural technology.

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CHAPTER I

INTRODUCTION

Background of the Study

Rural people in Third World countries are still poor despite the many rural development programs launched by their governments over long periods of time. Inequality and a low standard of living have remained problems from generation to generation. Since the majority of people in the Third World are engaged in agriculture, government policies and planning have concentrated on agricultural projects that deal with the development of agricultural resources, technology and infrastructure as well as the improvement of farmers' productivity.

Rural development efforts in Thailand have been ongoing for more than 20 years, beginning with the First National Economic Development Plan in 1961. The most recent plan is the sixth. Within the expanse of the six plans, the developmental concept and implications have undergone changes.

In the earlier plans, the rural development strategy was primarily growth oriented, aimed at increasing national income and production. However, various problems still prevailed in the rural areas in terms of the distribution of development benefits and the improvement in the quality of life.

The later plan aimed at implementing development in the poverty stricken areas, and improving the rural administrative system for better coordination among sectors at various levels. The new concept of rural