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* COOPERATIVE BUYING GROUPS IN THAILAND *
* RESULTS OF A SOCIAL EXPERIMENT *

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PREFACE

This document has been printed and distributed by the Northeast Rainfed Agricultural Development Information and Coordination System (NERADICS) of the NERAD Project. The purpose of NERADICS is to establish, at the Northeast Regional Office of Agriculture, a system to manage Project-generated data and information in order to support the testing, transfer and dissemination of technologies, methodologies and approaches appropriate for integrated agricultural research and development in Northeast Thailand.

Technical working papers are produced with the objective of communicating project-generated information to the relevant research and development agencies in order to receive comments and feed-back and to help to ensure that the lessons learned within NERAD are made available to all interested individuals and organizations.

Working papers are produced on a number of topics and are grouped into three series according to their subject matter:

Technology Documentation Series

Documentation of technologies considered appropriate for rainfed agricultural development in Northeast Thailand

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Situation papers on the problems or constraints currently facing rainfed agriculture and farm families in Northeast Thailand.

All papers in these series are listed in the Appendix of this report and are available on request from the Project Director. The papers are updated at appropriate intervals and NERAD invites comments and discussion from readers on any topic covered in the reports.

COOPERATIVE BUYING GROUPS: RESULTS OF A SOCIAL EXPERIMENT

INTRODUCTION

The Northeast Rainfed Agricultural development Project (NERAD) was designed as a farming systems development project. The primary result of this design focus was that the Project touched on a broad range of the villagers' problems and needs. This necessitated that the Project include a broad range of departments in Thailand's Ministry of Agriculture and Cooperatives (MOAC). One of these was the Cooperatives Promotion Department (CPD).

Based on interests in the CPD and on perceived and documented needs of the villagers with whom the Project was working, an activity to assist villagers in forming cooperative buying groups was implemented. While most of the Project's activities were technically oriented (such as farmer-managed cropping trials), this activity was a social activity. The unique feature of this activity was that it was planned, implemented and monitored as if it were a test of a production technology. It was a rare opportunity to perform a social-science experiment. A secondary feature of this activity was that it allowed an opportunity for Project staff, including Thai government officials, as well as Thai and expatriate technical assistance staff, to blend technology development and institutional development objectives.

BACKGROUND

Institutional development is often a vague objective in Third World development projects, a fact which frequently causes problems for both the host country and the funding agency (Caldwell). The Northeast Rainfed Agricultural Development (NERAD) Project in Thailand has both institutional development and technological development objectives. By merging these objectives, the technologies were used as training experiences to assist in institutional development.

Based on the project design and early work with NERAD, the institutional development objectives of the Project were specified as five goals (Alton). These included: encouraging participation of villagers; making decisions on past experiences ("lessons learned"); building components which could be continued within the extant system; adapting technologies to fit local environments; and integrating the work of all related agencies. A strategy was built around these goals in which specific components (activities) were designed to meet development needs of villagers within the five goals. To many, the goals were seen as distant and elusive. However, over time many of the participants did accept and internalize the five goals and project activities came closer to meeting them. There was an

evolution among the Thai officials and their expatriate counterparts in understanding and implementing the Project within these guidelines.

The combination of an identified need with documented problems made this an ideal area on which focus the strategy of the NERAD Project. A plan was made to use this situation to: first, attempt to correct some problems at specific sites; secondly, develop a process that the CPD could use to make improvements throughout the region; and thirdly, to provide data needed to make appropriate change in CPD policies.

DESIGN PROCESS FOR THE GROUP BUYING ACTIVITY

CPD officials were interested in group marketing and suggested it as a NERAD activity in 1982. Office of Agricultural Economics (OAE) and NERAD staff did a feasibility study which documented the need for assistance in input procurement, indicated that villagers were familiar with the concepts involved in cooperative marketing and were interested in becoming involved. The feasibility study also identified a constraint - that villagers lacked the initial capital necessary to start a group.

NERAD technical assistance staff also had input into the initial plans. A marketing consultant suggested that the marketing group concept was likely to be feasible for purchase of inputs, but that selling groups were unlikely to work because of the extreme variability in the villagers' products (quality, time of sale, etc.). Some had expectations that the marketing groups would correct many marketing problems, but it was pointed out that many of these are outside the scope of marketing groups. For example, if the groups were expected to raise overall price levels, they would surely fail.

The group buying activity was approved for implementation as a social "experiment", analogous to the technical experiments (such as farmer-managed fertilizer use trials) being conducted within the Project (Craig). Hypotheses were identified from the background studies. The objectives of the experiment were to determine if group buying could be successful in the test environment and, if so, how the groups should be organized and supported. While the broad objective was experimental, the secondary objective was to put functional, permanent groups into place in the villages. This objective was viewed by some of the officials as the primary objective and limited the flexibility of the "experiment".

It was hypothesized that the buying groups would be successful if they were small (50 member families or less), members lived close to each other (either in the same or adjacent villages), had good leadership, had support from the local Cooperatives Department staff, and had an outside source of initial funds.

Buying groups were established in four tambons (sub-districts) during 1985. In 1986 five more groups were organized. The process began with the local cooperative department officials discussing the buying group idea with local leaders and villagers. Some of those who were interested received further training. One effective training technique was for members of one group to visit existing cooperatives in other areas. Talking to members of a functioning group gave them a better idea of what would be necessary to begin a group in their village.

Next, came the actual organization of the group. Following plans based on the initial hypotheses, 40 to 50 families, all within one village, were invited to join each group. All of the members were informed that they must be accepted by the other members because liability is shared, i.e. the group is liable for the debts of its individual members. Some groups required that each member have two co-signers who are also members of the group. Each member was required to purchase a share in the group for 100 baht (about \$4).

Each of the four groups established in 1985 received an initial revolving fund of 70,000 baht (about \$2,500) from Project funds. The CPD arranged for this fund to be used for the purchase of fertilizer through the Marketing Organization for Farmers (a Thai government agency). The types of fertilizers purchased were based on the preferences of each individual group as shown in table 1.

Each group received, stored and handled the distribution of the fertilizer differently. Some allowed for cash and credit purchases. One group decided that credit was not a constraint for its members and sold all of the fertilizer on a cash basis. They then used the cash to make another fertilizer purchase.

TABLE 1. FERTILIZER PURCHASES BY BUYING GROUPS

GROUP LOCATION	MAJOR CROPS	FERTILIZER TYPE (N-P-K)	AMOUNT (tons)
T. Na Thom (Nakhon Phanom)	rice	16-16-8	11
	kenaf	15-15-15	2
T. Tee (Sri Saket)	rice	16-15-8	13
T. Lahan (Chaiyapham)	rice	16-16-8	8
	vegetables	15-15-15	5
T. Nong Kaew (Roi Et)	rice	16-16-8	13

It was expected that a very important factor related to the success of the group would be its leadership. Leaders, who received small payments for their time involved, performed duties including organizing and presiding at meetings, collecting funds and selling fertilizer, demanding loan payment, maintaining financial records and dropping members who did not repay loans or broke other rules. It was hoped that leaders would be selected who had few other formal leadership responsibilities in order to avoid conflicts of interest. For example, the village headman is responsible for the welfare of the entire village. If he was the group chairman, a potential conflict existed between the good of the group and the good of the entire village. In practice it was discovered that there is a scarcity of recognized leaders in the villages, thus the village headman was usually selected as the group chairman. In spite of the potential conflict, no evidence of actual problems was identified.

General membership meetings were held to make purchase decisions. Fertilizer types and amounts were selected and cash collected when purchases exceeded the amount of the revolving fund plus additional funds already accumulated. Before the fertilizer was received, the necessary arrangements must have been made for storage, distribution, collection of payment, record keeping and resolution of problems. Storage was a problem with some groups. Often leaders did not want to store the fertilizer at their homes because of odor and because they were held responsible for theft or spoilage. Warehouses were available at tambon centers, but were not considered sufficiently secure.

PERFORMANCE OF THE "TEST" GROUPS

Thai subsistence rice farmers, like their counterparts in other Asian countries, are aware of the impact of fertilizer on rice output and purchase fertilizer within credit and risk constraints (Barker, et. al.). The groups have provided fertilizer to their members at much lower prices than through the normal channels as shown in Table 2.

TABLE 2. FERTILIZER PRICES
(baht per 60 kg. bag)

GROUP	FERT. TYPE	MEMBERS		NON-MEMBERS		LOCAL MARKET
		cash	credit	cash	credit	cash
T. Na Thom (NKP)						
	16-16-8	200	--	--	--	280
	15-15-15	245	--	--	--	320
T. Tae (Sri Saket)						
	15-16-8	225	225	250	--	280
	15-15-15	255	--	265	--	300
T. Nong Kaew (Roi Et)						
	16-16-8	230	230	--	--	270
	16-20-0	230	--	240	--	260
T. Lahan (Chaiyaphum)						
	16-16-8	225	225	240	--	280
	15-15-15	250	250	270	--	305

(Note: In 1986, 26.5 baht = \$1 U.S.)

The groups have provided significant savings on fertilizer costs. Based on these prices paid for fertilizer, total savings to members of the four groups are over 71,000 baht. In addition the four groups have earned a profit of about 23,000 baht. Thus, the groups have done quite well at achieving the goal of lowering the price paid for fertilizer.

When the groups were being established the CPD surveyed fertilizer use of the villagers. It was expected that if fertilizer prices were lowered and credit made available, that fertilizer use would increase resulting in increased crop yields. Brief questioning indicated that this has occurred in all except one of the project areas (Sri Saket). This is probably due to fertilizer use in Sri Saket already being close to recommended agronomic levels.

A third result has been additional purchases of fertilizer initiated by the groups. Two of the groups (Sri Saket, Tambon Tae and Roi Et, Tambon Nong Kaew) made additional fertilizer purchases in the first year. The Sri Saket group added to the revolving fund to make a total of 110,000 baht for the second round of fertilizer purchase.

Typically, loans through government sponsored cooperatives in Thailand have had poor repayment records (BAAC). The loan repayment data indicate that because of the way these groups were organized repayment records will be good. The group in Tambon Lahan (Chaiyaphum) has received repayment of all loans from its members. Preliminary data from other groups indicate similar repayment rates.

The long run measure of the success of this activity is its adoption by villagers. This experiment was implemented under the hypothesis that a constraint is the need for initial capital to start the group. Thus, while the potential for adoption could include at least one group for every village in the Project areas, a practical limit exists due to the limited resources in the Project for the initial capital ("revolving fund"), leadership and support. Two types of adoption were monitored. One was strengthening and expansion of membership in the "test" groups. The second was the establishment of additional groups.

The existing groups have been well-established. Two of the groups have initiated additional fertilizer purchases on their own. This is an important step toward independence and a measure of adoption. There has also been discussion about expanding the functions of these groups. For example the Tambon Lahan group (Chaiyaphum) is considering purchasing machines for direct seeding of rice to be loaned or rented to its members. The Sri Saket group has discussed purchase of pesticides.

Expansion of groups by adding members has occurred to a limited extent. This cannot be considered a primary indicator of adoption because the effectiveness of the groups will be limited if they become too large. However, if groups can expand and then split into two independent groups the problems would be avoided. This was likely to happen with the group located in Tambon Nong Kaew (Roi Et).

These indicators show good progress toward adoption, within current Project limits. This experiment will only be a success if the Project Management is able to extract the successful components of the test and develop a project strategy leading to expanded adoption within the normal purvue of the MOAC.

GENERAL RESULTS OF THE EXPERIMENT

The Project succeeded in establishing viable buying groups. But the objective of the "experiment" was not just to establish nine groups, but to produce information improving the general process. Of the five hypotheses considered, only one was refuted.

No evidence was produced to refute the first four hypotheses: that it is important for groups to be small, for members to live in close proximity, for there to be good leadership, and for extensive support from the CPD. However, the hypothesized need for initial capital was refuted among the villagers in the tests - more cash was available than expected. The CPD provided technical and organizational support for groups without access to an outside source of initial funds. Villagers had to collect capital from members of the group. Several groups were started under this condition suggesting that the need for initial funding is not as great as was hypothesized. In addition, it suggests that the support provided by the CPD may be the critical component.

Fertilizer price subsidization was less important than expected. Initially, the CPD procured the fertilizer through the M.O.F. at subsidized prices. This enabled the groups to sell to their members well under the prices of local merchants. But some groups wanted to escape the delays involved in purchases through the government and negotiated prices through local merchants which were lower than the normal market prices. At some locations, these locally negotiated prices were close to the subsidized price (10 to 25 percent under the usual price).

The initial success of the groups suggests a perception among the members that they receive substantial benefits. These are primarily lower fertilizer prices and reduced credit costs. Credit is an important factor in the purchase of inputs in the local markets. Effective interest charges, according to villager comments, were sometimes over 100 percent. It was evident that interest rates varied; but the actual rates, variations and conditions have not yet been documented. Villagers did, however, understand the need for credit and the time value of their resources. The financial benefits of lower prices and credit costs can be increased as groups extend their buying to other agricultural inputs, such as pesticides.

A potentially important benefit that would be difficult to document is the impact of the project on the behavior of local merchants. If prices are above competitive levels, the existence of the groups may result in lower overall prices, not only for the members but for others in the areas.

Important factors needing more study include the role of the leaders, the size of the group and need for funds. Most likely these cannot be predetermined because they depend on local conditions. In this situation, expansion of the buying group activity will require major support from local CPD officials so that they can provide the necessary ingredients as determined in each individual situation.

Unfortunately, the experiment did not generate enough data about the relationships between group size, membership proximity, local leadership and CPD support. Thus, at this point, this "technology" must be considered a "package" which is likely to work if all parts are kept together. What is preferred is a "basket" of components, that is set of components which will work independently. Under the current situation it is unlikely that merely providing the funding would result in a viable group. In fact, the support and training are probably the most important inputs and the revolving fund is just the incentive to get the group started.

CONCLUSIONS

The "systems" approach to on-farm agricultural research in the Third World demands attention to the peasant farmer's acquisition of inputs and marketing of outputs. It was the NERAD experience that these were identified needs and documented problems for Thai villagers. Thus, the Project initiated the experiments with cooperative buying groups to secure fertilizer, the most important cash input for subsistence rice producers.

Although the benefits to the villagers can only be partially documented, the initial success of the NERAD buying groups should be the basis for further experimentation. While the literature on establishing effective cooperatives in Third World countries documents a mixed success rate (Roy), cooperatives should not be abandoned. Successful cooperative procurement of cash inputs can lower production costs, increase productivity, and potentially increase outputs for subsistence farmers. This research indicates that such cooperative enterprises should be sponsored, following the approach developed in the NERAD Project, around the Third World to further test viability across cultural settings.

The approach based on a farming systems conceptual framework has the potential to improve the success rates. Whether results can be matched in other cultural/economic environments can only be determined with further social experimentation.

The Project provided benefits to Thai villagers through the cooperatives. Villagers in other countries may also benefit if the approach is successful in developing cooperatives in other countries.

A different type of benefit was the improved approach adopted by the CPD. Before the Project, activities were frequently implemented based on a very weak understanding of local conditions, resulting in very poor success rates. The improved process was based on doing preliminary studies, developing hypotheses based on the results of the studies and implementing activities designed to test the hypotheses. The buying group activity was a test of this process.

Its success not only validated the process but provided encouragement to those involved to try to institutionalize the process into the CPD. The final test will be whether improvements are made based on an analysis of the hypotheses and if this process is integrated into the on-going activities of the CPD. If so, this Ministry of Agriculture and Cooperatives Department and the people it is attempting to assist will be major beneficiaries.

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