

## THE NORTH COTABATO RURAL ENTERPRISE DEVELOPMENT PROGRAM (NCREDP)

Napoleon D. Amoyen  
Teresita N. Angeles  
Marlina C. Lacuesta

### Introduction

In response to the need to improve the quality of life of people in general and the parish-members in particular, the Diocese of Kidapawan (North Cotabato) has launched a three-year development program for five self-help community cooperatives. Formally launched in mid-1989, the North Cotabato Rural Enterprise Development Program (NCREDP) focuses on such specific thrusts as capability-building, self-reliance and self-determination through organizing, financial/credit assistance, technical assistance, crop insurance and marketing assistance.

As part of its three-year program design, the Diocese has identified the need for a mid-term evaluation, i.e. after one-and-a-half years of implementation as a gauge of the performance and status of the program relative to the objectives defined earlier; hence this study.

### Objectives of the Study

The study has the following objectives:

1. to identify the strengths and weaknesses of the project vis-a-vis objectives set,
2. to identify and assess the effectivity of the strategies and approaches used in the program,
3. to determine the program's impact on capital build up, participation of beneficiaries in program decision-making and planning processes, and beneficiaries' participation in their respective organization/cooperative,

4. to determine other factors affecting program performance (e.g. effectiveness of delivery structure vis-a-vis the receiving structure), and
5. to formulate recommendations to improve the project schemes.

### Significance of the Study

The results of the study hope to provide development planners and workers of the agency-implementor knowledge on the status of the development program. Such information would likewise serve as a guide for the program workers to improve, strengthen or modify certain aspects of their performance to effectively deliver services to the beneficiaries. This will also provide the basis for reviewing existing policies, procedures and strategies so that appropriate changes or modifications may be made to improve program-implementation for the remainder of the grant-period and even beyond.

### Methodology

The data collection activities consist of two distinct components. The first involves secondary data-collection, i.e. review of the records of the agency-implementor and the five self-help cooperatives. This provides information on the performance of the cooperatives relative to the program objectives. The second component includes the interviews of 150 farmer-beneficiaries (i.e. a quota of 30 beneficiaries per cooperative), which is deemed necessary as a feedback-mechanism on the strategies of the program implementation.

A structured survey instrument was used in data collection focusing on the following main variables:

- I. Farm Data
- II. Farm Practices
- III. Production Data
- IV. Post harvest facilities

- V. Participation
- VI. Income and Savings
- VII. Comments and Recommendations for the Cooperatives

### Data Analysis

The descriptive research adopted univariate tables, percentage analysis and measures of central tendency such as means and modes in the data analysis.

#### Accomplishments of the Five Self-Help Cooperatives Vis-a-Vis the Program Objectives

#### *Financial Assistance*

The program has extended loan assistance to farmer-beneficiaries in the five self-help cooperatives under the Diocese of Kidapawan. A total of 391 and 458 farmer-beneficiaries received production loans during the program's Phase II (April 1990 to September 1990) and Phase III (September 1990 to December 1990) cropping periods, respectively.

Based on a review of records submitted to the Social Action Office of the Diocese of Kidapawan, a total of P1,113,276.38 worth of loans was extended to the farmer-beneficiaries, with 94 percent (P1,046,422.31) of this amount collected during Phase II. Such a total incurred an interest of P92,850.75, of which 89.4 percent (P82,676.76), representing interest-payments, has been collected (Table 2).

All the M'lang farmer-beneficiaries have paid back their loans, along with the interest incurred. Matalam beneficiaries ranked second with an 89 percent collection rate, while New Cebu registered the lowest interest collection (72.2%).

During Phase III of the Project-cycle (September 1990 - December 1990), the number of farmer-beneficiaries increased by 17.1 percent (or an addition of 67 farmer-beneficiaries) from

Phase II. Likewise, the amount of loans extended and the interest-payments increased. However, the collection performance appeared to be lower than that of Phase II. Of the total amount of loans (P1,599,598.46) extended to the beneficiaries, post-harvest collections were recorded at 77 percent (P1,239,789.07). The total amount of P109,780.56 (79.8%) was collected from from the aggregate loan interest due (P137,632.51). The M'lang cooperative indicated the highest amount of loan-collections (96% or P318,870.16) and interest-payments (98% or P32,930.13) with Antipas the lowest in the collection of loans (62%) and in interest-payments (46%).

Reviewing the targets identified prior to the start of the program, it was envisioned that assistance would be extended to 550 farmer-beneficiaries at the end of the three-year grant-period. After one-and-a-half years of the program, the mid-term review revealed that the cooperatives had already extended financial assistance to 458 farmers, representing 83.3 percent of the targeted 550 farmer-beneficiaries at the end of three years. Given the target of 110 farm-beneficiaries per cooperative, Magpet and New Cebu revealed the highest number of farmer-beneficiaries extended financial assistance (89.1% each) with Antipas the lowest (67.3%).

*Five Self-Help Cooperatives.* The program envisioned that each of the five self-help cooperatives would generate at least a capital build-up (CBU) of P690,000 at the end of the three-year period. Given such an amount, it was assumed that each of the five self-help cooperatives should have generated at least P345,000 halfway through the program implementation. However, the records review proved otherwise. Given the assumed CBU of P345,000 that should have been generated after one-and-a-half years, New Cebu indicated the highest amount of capital build-up generated (67.5% or P232,763.66) with Matalam, the lowest (17.6% or P60,737.93). The CBU generated by the five self-help cooperatives increased two-fold, i.e. approximately 109.45 percent from the baseline level. New Cebu showed the highest increase (508.57%) with Matalam, the lowest (2.95%).

Given the financial assistance to individual farmers, the program likewise envisioned that at the end of the program, each farmer-beneficiary would have generated a CBU of at least P4,500 or

approximately P2,250 as of the mid-term review, i.e. after 1.5 years of the program. The records indicated a total of 458 farmer-beneficiaries who had been extended financial assistance. However, 55.7 percent (or 255 farmer-beneficiaries) have contributed a total of P189,924.01 (or an average of P744.80 per beneficiary) out of the CBU due (P393,750). The data likewise revealed that Magpet collected the highest amount of CBU (P65,829.07) with Antipas, the least (P4,350).

Given the assumed amount of CBU of P2,250.00 that should have been generated after one-and-a-half years of program implementation, the records revealed that 13 out of 255 farmers indicated payment of CBUs equal to or greater than P2,250.00. Among these 13 beneficiaries, 8 were farmers from Magpet, 3 from New Cebu, 1 each from Matalam and M'lang. The rest (242 out of 255 farmer beneficiaries) have a CBU of less than P2,250.00. The minimal amount of CBU collected could perhaps be attributed to the low production (and correspondingly minimal harvests) as a result of the long drought period in Southeastern Mindanao from late 1990 to the second quarter of 1991.

### Trainings

To appropriately equip the coop leaders with management skills for their cooperatives, various training activities were conducted by the implementing agency with the assistance of Consortium for the Development of Southeastern Mindanao Cooperatives, Inc. (CDSMC) and *Gagmay'ng Kristohanong Katilingban-Kidapawan* Foundation, Inc. (GKK-KFI). These include, among others, programs focusing on "Organizational and Basic Cooperative Management", "Enterprise Management", "Leadership", "Community Organizing", "Financial Management", and "Credit and Marketing Operations". Based on the available records, findings indicated that the trainings conducted for the coop leaders included sessions on "Bookkeeping", "Basic Management", "Consumer Management", "Marketing Management", "Financial Management", "Savings and Credit Management", "Trainer's Trainings", "Audit and Inventory", and "Basic Accounting". The trainings conducted most often (7 sessions) for the coop leaders were on bookkeeping skills, followed by those on "Marketing

Management", "Financial Management", "Trainer's Trainings" and "Audit and Inventory" (5 sessions each). The "Basic Management", "Consumer Management", and "Savings and Credit Management" were conducted four times.

The cooperatives in Matalam and Antipas reported having undergone training on bookkeeping twice while those in the other survey sites indicated having participated in all other training activities at least once.

The number of coop leader-participants ranged from 3 to 28 participants during the different training-sessions conducted. The "Trainer's Training Activity" had a total of 28 participants, followed by bookkeeping (17 participants) and financial management (12 participants). The session on "Basic Accounting" registered the lowest number of participants, mainly in Antipas (3 participants). Almost all the trainings were conducted in the cooperatives in all the survey sites.

To insure proper farm management and increased production among the farmer-beneficiaries, several trainings were likewise designed under the Program, specifically focusing on "Appropriate/Production Farm Technologies and Management", "Value Formation", "Budgeting", "Cooperatives", and "Small Business Enterprise". The records reviewed revealed that at least 11 trainings were conducted among the farmer-beneficiaries, with those on "Farm Management and Family Budgeting" being the two most widely conducted (15 sessions), followed by "Rapid Composting", including demonstration, (10 sessions). "Rice Culture Management and Health Seminars" and "Bio-spray Sessions" appeared to be the least often conducted (once each). The cooperative in Matalam conducted the highest number of trainings (9 types of trainings) with Antipas, the lowest (4 types of trainings).

The number of farmer-beneficiaries participating in the different training activities varied widely, from as low as 7 to as high as 374 farmer-participants. "Farm Management and Family Budgeting" had the highest number of participants (374), with "Rice Culture Management and Health Seminar", the least (7).

Health related seminars were integrated in the various training

sessions. The production loan schemes under the program primarily reduced the opportunities for exploitation of these farmers by unscrupulous traders. The scheme provided a maximum cash loan of P3,000 per hectare per cropping at 8 percent interest-rate (or a monthly average of 2 percent). Such an interest was much lower vis-a-vis the interest charged by the local traders which, as revealed in the 1989 baseline survey, ranged from 11.95 percent to 25.41 percent per month.

However, it is interesting to note the comments of the coop managers, during the focus group discussion, that most of the farmers deliver only the required number of kilos of their produce representing their loan-payments and the required forced savings to the cooperative. The remaining portion of their produce was subsequently delivered to the traders as payment for their outstanding loans, e.g. cash-advances for educational purposes and purchase of consumer-items during the cropping period.

The baseline survey revealed that only the Magpet coop has been registered with RCDAO. As of the mid-term program review, the number of registered cooperatives increased to four, with Matalam, M'lang and Antipas likewise acquiring their "legal personalities". The application of the New Cebu cooperative is currently being processed.

As of the mid-term program review, two meetings have been conducted to discuss the possibility of establishing a federation among the five self-help cooperatives. The first meeting focused on explaining the "Federation" concept and clarifying their various expectations from such a federation. The members present likewise drafted the proposed name of the federation, i.e. "Mindanao Inter-trading for Coop" which was subsequently changed to "Cotabato-Davao Sur Federation of Coop, Inc." during the second meeting. To facilitate the operation of the federation, the five self-help cooperatives agreed to provide financial contributions.

*Number of "Seldas" (Cells) Organized.* As part of the program objectives, the coop-beneficiaries organized the farmer-members into *seldas* (cells). These were suppose to endorse the loan applications of its members to the coop loan officer and serve as a mechanism for the collection of loan payments. However, these

functions were never realized for the *seldas* were mainly utilized as venues for training.

Except for M'lang, a total of 51 "seldas" were organized with Magpet having organized the highest number (19) and Matalam, the lowest (10).

\*During the focus group discussion conducted by the research team with the five coop managers in July 13, 1992, M'lang mentioned that in the first year of the program they had organized the farmer-workers into *seldas*, however, these were later organized into *Gagmayang Kristohanong Katilingban* (otherwise known as the GKK).

Coop membership was generally of two types, i.e. individual and group membership. Except for M'lang, which reported membership by groups, the cooperatives from Matalam, Magpet, Antipas and New Cebu had primarily individual members. The mid-term program review indicated an over-all increase in the coop membership, both among individuals and groups. Magpet indicated the highest increase in individual membership (230.2%), while New Cebu, the lowest (14.9%). M'lang showed a 9.9 times increase (990.0%) in their group membership. Generally, the individual and group members increased by 44.9 percent and 10.04 times increase (1,004.5%) from the baseline level, respectively.

All the cooperatives reported increases in the capital shares of their members. Generally, the members' capital shares increased nearly four times (P331,450.72). New Cebu revealed the highest increase (674.32%) in members' capital share and Matalam, the lowest (179.55%) from the baseline level.

The current assets likewise revealed significant increases. New Cebu showed 28 times increase (2750.5%) in current assets (P1,959,237.59) compared to its baseline level (P68,733.30%). M'lang showed the lowest increase in current assets (49.9%). (The change in Matalam's current assets could not be determined as it was not clear in the financial statements submitted. Likewise, the financial statement of Matalam followed a different format from those of the other four cooperatives).

Similar trends in the current assets were observed in the total assets of the five self-help cooperatives. New Cebu indicated the highest, a 17 times increase (1654.1% or P1,771,482.45) from the baseline level (P100,989.57), with M'lang, the lowest (P37%). Matalam had no available records on total assets.

Of the five self-help cooperatives, M'lang and New Cebu indicated positive change in net income from the baseline level. M'lang indicated nearly a 500-fold increase (49,859.9% or P35,875,416) from the baseline level (P71,809.75), while New Cebu increased 8.5 times (786.3%) from the baseline level (P2,866.85).

Among those with negative changes in net income from the baseline level to mid-term review, Antipas registered the highest decrease at P28,197.69 (88.2%) from baseline level (P31,234) with Magpet, the lowest (8.7% or P692.32).

*Cooperative Operational Activities.* The five self-help cooperatives indicated expansions in their operations, relative to what had been stated in the baseline survey. These expansions could perhaps be due to the financial assistance provided by the program. The financial assistance made it possible for the cooperatives to increase their capital output, thus expanding their operations. Matalam started as a consumer coop and eventually expanded to merchandising, marketing, and production credit while Magpet initially engaged in merchandising, marketing and consumers credit and subsequently provided savings and production credit. New Cebu concentrated on consumers credit and savings and production credit while M'lang engaged in production credit and livestock-marketing. Antipas focused solely on loan-assistance.

*Marketing linkages.* To reduce the "exploitative clout" wielded by the local traders on the farmers, the cooperatives provided marketing assistance for the farmers' produce. All the self-help cooperatives have thus established marketing linkages with the National Food Authority. Matalam, on the other hand, likewise established marketing linkages with big traders in Digos (Davao del Sur) and Kidapawan, North Cotabato. Antipas has similarly established such linkages with the Sta. Catalina Multipurpose Cooperative, Inc. (SCMPC) and Chinese traders in Davao City.

The role of post-harvest facilities is deemed crucial in uplifting the income-status of farmer-members, as the presence or absence of such facilities affects their decisions on "where" and "when" to sell their farm produce. The focus group discussion \*revealed that four of the five self-help cooperatives have post-harvest facilities. M'lang has acquired a jeepney, two hauler-trucks (one "three-fourths" type and a 10-wheeler truck) and a solar dryer. Antipas reported having a hauler-truck (a "three-fourths" type). The Magpet and New Cebu cooperatives utilized the existing facilities of their parishes, i.e. the seminar house serves as a warehouse in Magpet, and the basketball court as "dryer" and the parish jeep as "hauler" in New Cebu. Matalam has sold its hauler-truck which was acquired in 1989 during the baseline survey period.

Crop insurance was one form of governmental assistance extended to farmers whose crops were damaged as a result of natural calamities. This helped the farmers recuperate from their financial losses on the crops planted. At the start of the program, i.e. the "first cropping", the number of farmer-beneficiaries applying for the insurance ranged from 5 percent

\*Conducted with the managers of the 5 self-help cooperatives and the project manager and two project technicians on July 13, 1991 at De Mezenod Seminar House, Kidapawan, North Cotabato. (Magpet) to 100 percent (New Cebu, Antipas and M'lang), with 85 percent of Matalam farmer-beneficiaries insured. However, on the succeeding cropping schedules, the farmer-beneficiaries from Matalam, Magpet, New Cebu and Antipas did not insure their crops, given their previous experience on delayed payment-releases of the insurance agency.

The results of the focus group discussion revealed that three of the five self-help cooperatives reported savings deposits of their members over and above the forced savings required by the program. Such savings deposits were true for Antipas, Matalam and New Cebu. Matalam had 10 depositors; New Cebu, 9; and Antipas, 8.

The savings deposits ranged from as low as P50.00 to as high as P26,287.59. The total amount of savings deposits was P70,432 or an average of P2,608.60 per depositor. Matalam reported the highest

savings deposits (P41,848.68 or an average of P4,188.47 per depositor) and New Cebu, the lowest (P9,798.06 or an average of P1,088.67 per depositor). Antipas has a total of P18,749.40 worth of savings deposits.

**Mean Gross Farming Income Per Hectare Per Cropping.** The total mean gross farming income per hectare during the Phase III cropping under the project was P8,827.73 or P2,106.93 monthly. M'lang revealed the highest mean gross farming income (P15,797.93) with Matalam, the lowest (P5,585). The mean total figure generally decreased when compared to baseline findings (P10,664). Only M'lang showed an increase in mean gross farming income (P15,797.93 or P3,949.48 a month) vis-a-vis the baseline figure of P10,476 or P2,691 a month. The total mean net farming income per hectare was P3,422.24 with M'lang the highest (P7,481.57) and Matalam, the lowest (P2,165.49).

Generally, the mid-term review revealed that the total mean net farming income per hectare (P3,422.24 or P855.56 a month) was slightly higher than the baseline figure (P2,916). Only M'lang (P7,481.57) and New Cebu (P3,112.25) showed increases relative the baseline data (P1,169 and P1,784, respectively).

The low income performance of the cooperatives in gross mean farming income and mean net farming income could be due to the long hot season during the Phase III cropping period, i.e. from September 1990 to the early part of the second quarter of 1991. This situation likewise increased farming expenses of the farmers, resulting in greater operational expenses than the projected income by the farmers for that season. More than half (165 out of 365) of the farmers who received financial assistance indicated decreases in their incomes from the previous cropping (Phase II). Generally, the total decrease in income from the previous cropping was 101.4 percent. Antipas and Matalam (117.9%) showed the largest amount of decrease in net farming income vis-a-vis the baseline data. Magpet (49.5%) had the lowest mean net farming income per hectare. All the farmer-beneficiaries from Antipas indicated decreases in mean net farming income.

## Status of the Five Cooperatives

**San Vicente Ferrer Consumers Cooperative, Inc. (Antipas).** It has transferred to a new location given its newly-constructed building in November 1990 which serves as its office, store and warehouse. It has likewise purchased a hauling truck and hired seven additional staff members.

**San Jose Katilingban Consumers Cooperative, Inc. (Magpet).** Under a new manager, it has hired a posting clerk who assists in the financial recording requirements of the coop. Its merchandise and farm inputs are secured from Kidapawan. Marketing activity is hampered due to the delayed payments of the National Food Authority (NFA) for the farmers' produce. This partly explains the tendency of farmers to sell some of their produce to local traders.

**Matalam Sto. Niño Consumers Cooperative, Inc. (Matalam).** It has transferred to its new location at the public market in response to the members' demand to make the coop accessible to the public, i.e. near transportation facilities. However, the buying station for the farmers' produce, i.e. the parish, is approximately less than a kilometer away from the coop itself. Local traders remain the sole source of the coop's merchandise goods. A fast turn-over of staff was likewise noted due to the limited cooperation and internal conflicts arising among the members. A related observation was the insufficient capital available for the immediate cash requirements of the farmers upon delivery of their produce to the coop. This has subsequently caused the farmers to decide to sell only a portion of their produce to the coop, i.e. just enough to pay the loans availed of and the capital build-up requirements which, in turn, limits the earning capacity of the coop members themselves. The coop likewise acquired a piece of land for its future development.

**M'lang Multi-purpose Cooperative, Inc. (M'lang).** This coop was noted as the biggest rice supplier to the National Food Authority (NFA). The coop has also availed of financial support from the Quedan Financing Program for its marketing activities, the Land Bank for its production capital and the M'lang Parish for the expansion of the solar dryer constructed within the parish premises. It has also acquired a jeepney as an additional transportation facility for hauling activities, aside from the existing hauling truck. The

jeepney was also used for hauling and delivering the coop merchandise goods. An organization of coop outlets has been established on the church-based "GKK-level" which increased the membership and capital build-up funds of the cooperative.

*Farmers' Service Cooperative, Inc. (New Cebu).* Though it still has to register with the Cooperative Development Authority (CDA), its Farmers Organization has been registered with the Securities and Exchange Commission (SEC) as of October 3, 1990. It has an additional four staff members, three of whom are involved with the marketing department and the fourth with the production department. Its purchasing capacity and the services provided the members have improved due to additional capital funds secured from the GKK-Kidapawan Foundation, Inc. and the Farmers Organization. To assist farmer-beneficiaries in increasing their capital shares, the coop has initiated a collection of P0.10 per kilo of rice or corn sold to the coop by the members.

### Survey of the Beneficiaries

This portion presents the survey findings based on the interviews of 150 beneficiaries as a feedback mechanism on the accomplishments of the cooperatives relative to the implementation plan of the NCREDP. Specifically, it discusses farm data, farm practices, production, post-harvest facilities, marketing, technical assistance received, trainings attended, loan assistance, participation, income and savings, including their comments and recommendations on the cooperatives.

*Number of Hectares Presently Cultivated.* The average number of hectares cultivated today are generally higher than those in 1989. The number of hectares currently cultivated by the respondents range, on the average, from 1.3 hectares (M'lang) to 2.68 hectares (Antipas), with the over-all average of 2.0 hectares across the five survey sites.

The farmers in four survey-sites generally cultivate medium-sized areas ranging from 1.5 to 2.4 hectares, e.g. in Matalam (60%), in New Cebu (50%), in Antipas (43.3%), and in

Magpet (50%). M'lang farmers, on the other hand, work on smaller farm-sizes i.e. with 67 percent cultivating from one-half to one-and-a-half hectares at present.

*Number of Hectares Previously Cultivated.* The computed average number of hectares previously cultivated ranged from a minimum of 1.3 hectares (in M'lang) to a maximum of 2.28 hectares (in New Cebu), with the over-all average at 1.89 hectares for all survey areas.

However, when asked whether they have expanded the areas they have cultivated between then and now, the majority (82%) replied in the negative, with those saying yes (18%) increasing at an average of 1.2 hectares for all the sites. The lowest averages (1.2 hectares each) were recorded in Matalam and in Magpet, while the highest average (1.7 hectares) was registered in New Cebu.

What crops are presently planted in the five survey-sites relative to those planted in 1989? Are these farmers engaged in mono-cropping or multi-cropping systems? Survey results closely parallel findings in the 1989 baseline survey, with the farmer-respondents engaged in corn (67.3%) and rice (46.7%) production.

The extent of multiple responses given by the respondents in the various survey sites serves as a rough indicator as to the extent of multiple-cropping activities by these farmers. While the majority (6.37%) were engaged in corn, the respondents likewise planted rice and other minor crops (e.g. rubber, coffee, bananas, mongos).

For one, Matalam farmers appeared to be the most varied, i.e. planting corn (87%) and rice (32.3%), not to mention mongo and peanuts. Antipas farmers similarly planted various crops. While all the respondents were engaged in corn production, some of them likewise mentioned rice (23%), coffee and rubber (10% each) and coconut and cacao (3% each). On the other hand, farmers in New Cebu appear to have concentrated mainly on both in corn (60%) and rice (63%), as no other crops were mentioned.

The areas planted to rice, on the other hand, are predominantly

small, with 70 percent of the farmer-respondents cultivating from .5 to 1.4 hectares and a limited group (20.3%) working on areas ranging from 1.5 to 2.4 hectares.

**Fertilizer Usage.** Except for one farmer in M'lang, all the respondents admitted using fertilizers in their farms, mainly urea (92%) and the ammonium sulfate (88%). Other varieties mentioned - though a much lesser extent - were complete (14-14-14) (12.2%), algafer (1.3%), Nuvacron (0.7%), Potash (0.7%), and Agrowell (0.7%). Percentage-wise, the fertilizer usage was higher (99.3%) than the baseline findings (91.3%). This situation could be due to the production loan scheme where the farmer-beneficiaries were obliged to avail of the fertilizers from the cooperatives.

Survey findings revealed the high level of assistance extended by the cooperative for the fertilizer users, with 93 percent of the respondents availing of fertilizers from the cooperatives. Ten farmer-respondents reported securing their fertilizers solely from traders with one availing from both. These data reversed the baseline findings where fertilizers were usually sourced from the local traders.

The fertilizer purchases from the coop were mainly made due to the members' existing loan-arrangements (65%). Some respondents simply noted that they were "coop members" while others cited the low prices for fertilizers offered (25% each). On the other hand, those who purchased from traders (11 respondents) explained that they did so inasmuch as the fertilizers were not readily available in the coop (8 respondents). Other reasons mentioned included the purchases "being endorsed by the coop itself" and the lower prices offered by the traders (2 responses each).

The predominant problems cited by the respondents were primarily supply-related, i.e. irregular fertilizer stocks (25.2%) and delayed deliveries (8.6%). Others cited high prices (10.8%) and high transportation costs (9.4%). How did the members solve these problems? What options or alternatives were available to them? How did they cope, given such constraints? The solutions mentioned suggested a general sense of helplessness among these respondents (50%), i.e. that they could "only wait till the stocks are

available" (44.6%) or "to follow-up coop stocks" (11%), not to mention being powerless with regards to the high transport and fertilizer costs (7 respondents).

Some respondents took more drastic steps over the lack of fertilizers, e.g. borrowing fertilizers from other traders at 20 percent interest (8 respondents or 12.3%) and "borrowing money to buy fertilizers" or "borrowing fertilizers from other members" (4 respondents each). Such behavicourses such as "Management and Educator's Training", "Consumer Management", "Marketing and Financial Management", and "Savings and Credit Management". Other seminars conducted were: "Trainors Training", "Farm Management Sessions", and "Basic Health and Nutrition Seminars", including "Agricultural Training", specifically on the technology of seed production and rapid composting for organic fertilizer production. Most of these trainings were held in the five area sites, except for the agricultural trainings, which were held only in Matalam, M'lang and New Cebu. Plans to cover the other areas are being made.

The Social Action Center (SAC) reports have been validated by asking respondents about their attendance in such trainings. About 90 percent claimed to have attended the trainings conducted by the cooperatives. Antipas had the best attendance (100%), followed by Matalam (86.7%). The "pre-membership seminars" were the most attended (70.4%), followed by farm management (37%), soil analysis (14.1%), production (11.1%), and rapid composting (8.1%).

One interesting thing to note is that while most of the trainings were on management skills, such activities were not mentioned by the farmer-respondents in the present study. (This might be explained by the possibility that such trainings were provided only for the staff and officers of the cooperatives). The trainings were perceived to be useful by most respondents (96.3%) because many of them learned about farm management (52.6%), the importance of the cooperatives (31.1%) and techniques in soil-analysis (14.8%).

### Production Loan

Recognizing the financial constraints of the small-scale farmer-beneficiaries, the cooperatives have provided credit

arrangements to help solve their farm-related problems. A loan of P3,000 per hectare per beneficiary could be availed of by the coop-members upon compliance with the various requirements of the cooperatives for such loans. This scheme, likewise aimed at minimizing the usual exploitative relationships between the usually cash-strapped farmers and the usurious traders. This section thus presents the beneficiaries' knowledge of the requirements of the cooperatives relative to loan assistance.

All the respondents were aware of the requirements for availing of the production loan from their cooperatives. While 14 different loan requirements were identified, foremost mentioned was the "accomplishment of forms" (40.7%). The second most mentioned requirement (30%) was the P500 minimum capital-share per member (particularly by those in M'lang and New Cebu). Approximately a fifth (20.7%) recognized the need to attend the "pre-membership seminars" (PMS). The need to deposit at least five sacks of the produce, representing "forced savings", was similarly mentioned (16.7%).

The respondents were subsequently asked to rate their participation in the cooperative activities, i.e. whether they were "active", "very active" or "not active". The majority rated themselves positively, i.e. either "active" (68.7%) or "very active" (29.3%).

The respondents claimed to have participated in 15 different coop activities though in varying degrees. Among those popularly mentioned activities, based on free recall, were attendance in general assemblies (57.3%), meetings (55.3%), and pre-membership seminars (30.7%). (One notes, however, that specific activities related to decision-making and other more active forms of participation were not mentioned).

#### *Assistance from Other Groups/Agencies*

More than two-thirds (68.7%) of the respondents claimed that they had not received any assistance from other groups or agencies. Those who did (47 respondents) represented less than a third (31.1%) of the farmers covered for the study. M'lang respondents (66.7%) had the highest number receiving assistance from other

agencies, while those from Antipas, the least (3.3%).

The majority, (44 out of 47 respondents) had availed of assistance under the "Rice Production Enrichment Program"\* (otherwise known as RPEP) of the Department of Agriculture in the form of seeds and fertilizers. The same trends hold true for Matalam, M'lang, New Cebu and Magpet. (The influence of such extraneous forces or other intervening factors would have to be considered in evaluating the program at the end of the grant-period. Other types of assistance received included loans (4.3%), "Bigay ng Bayan" (2.1%), water management (2.1%) and PRRM assistance (2.1%).

#### *Income and Savings*

This section presents the data on income and savings of the respondents, specifically: their savings, an analysis of farm income relative to family expenses, coping mechanisms for any losses in family income, changes in family income, utilization of any additional income, and perceptions about past and present incomes received.

"Savings" here refers to personal savings of the respondents other than the "forced" savings in the cooperatives. On the whole, only a few of the respondents (10%) engaged in any form of savings, with New Cebu indicating the highest number (16.7%) and both Antipas and Magpet, the lowest (6.7 each). Those who saved generally kept their savings in their houses (12 out of 15 respondents) with only 3 respondents (2 in Matalam and one in Antipas) having made bank-deposits.

*Farm Income Relative to Family Expenditures.* Asked about the adequacy of their income vis-a-vis family expenditures, more than two-thirds of the respondents (73.3%) reported that their farm income was not enough to cover family expenditures. On the other

\* The Rice Production Enrichment Program of the Department of Agriculture provided a "buy-one-take-one" fertilizer assistance for farmer (and even for corn farmers in the case of Magpet, North Cotabato). This high percentage of RPEP assistance surely affects the volume of farm production, thus affecting the reported income of farmer-beneficiaries of the NCREDP.

hand, close to one-fourth (23%) reported otherwise, with at least five respondents (3%) claiming that their farm income exceeded expenses (3.3%).

Those who noted that income was not enough to cover family expenses (110 respondents) mainly resorted to borrowing money from money lenders/friends/relatives (48.2%), selling backyard poultry and livestock (45.5%), and selling backyard farm produce (19.1%). Borrowing money appeared to be the most popular alternative among the farmer-beneficiaries in Antipas (66.7%) and Magpet (56.5%) while those in New Cebu (70.8%) and M'lang (59.1%) mainly sold backyard livestock and poultry. The Matalam farmers either sold farm products (45%) and animals (40%) or borrowed money (40%).

The majority (77.3%) of the respondents felt that there were changes in their income from 1989 to the present. The single biggest group who perceived such changes were the respondents from Matalam (76.7%). However, such changes were primarily decreases in income (63%), with less than a third (31%) reporting gains in income. On the average, incomes increased by 38.6 percent, with the highest increases registered in M'lang (67.7%) and the lowest in New Cebu (19.1%). Decreases in income, on the other hand, were computed at an average of 39.6 percent, with Antipas having the highest (53.6%) and Magpet, the lowest (29.3%). Generally, these figures confirmed the findings in chapter 2 regarding the increases and decreases in income of the farmer-members.

As noted earlier, 36 respondents reported income increases from 1989 to 1990. How did these farmers utilize such additional income? What were their immediate needs and priorities? Education appeared to be the highest priority, with close to half of the group (41.7%) using the money to pay for the tuition of their children. Similar trends can be observed in all the survey sites.

A final concern was to solicit these farmers' perceptions about the status of their present farm income (as of 1990), relative to that received in 1989, by using a ten-point Cantrill ladder-scale. Step "1" in that scale signifies the lowest income possible while Step "10" signified the highest possible income they could attain. The respondents were asked to choose the appropriate step which

would best describe their present income status relative to 1989.

Considering the various changes in their farm income since 1989, the respondents generally perceived themselves to be on Step "4.4" on the ladder-scale as of 1990. Respondents from M'lang rated themselves the highest at Step "4.9" while those in Magpet on the average, rated themselves the lowest at Step "3.3".

#### *Comments and Recommendations for the Cooperatives*

The comments and recommendations of the respondents for the cooperatives focused on the management, technical assistance, loan assistance, post-harvest facilities, training and technicians of the cooperatives.

Generally, the respondents believed in the proper management of the cooperatives (35.5%), that the technical assistance received helped them manage their farms properly (29.3%), and that the credit assistance helped reduce farm expenses (28%). At the same time, more than a third (36.7%) noted the absence of post harvest facilities like shellers, dryers, threshers, and warehouses. The trainings attended, on the other hand, were perceived to provide additional knowledge on proper farm management (24.7%). Please see Table 63 and Appendix A for the specific details in the survey sites.

Consistent with their perceptions, the respondents recommended that the cooperatives be continually managed properly (16.4%), that the provision of technical assistance should be sustained (41.8%), that the amount of loans available be increased (23.2%), and that more trainings be given to the members (71.4%). Not surprisingly, it was also recommended that cooperatives must have post-harvest facilities such as driers, haulers, shellers and warehouses (50.5%), that the cooperatives must have the proper technicians (37.3%), including an increase in their number (26.5%). Please see Table 64 and Appendix B for the specific detail in the survey sites.

## Survey Findings

The farmer-respondents are currently cultivating an average of two hectares, a little bit higher than the land area previously cultivated (1.8 has.) Less than a fifth (18%) expanded land area cultivated at an average of 1.2 hectares. Corn (67.3%) and rice (46.7%) are the two most mentioned crops planted in 1.79 hectares and 1.38 hectares, respectively.

Almost all of the respondents claimed that they were using fertilizers (99.3%), primarily urea (92%) and ammonium sulfate (88%), from the cooperatives (92.6%). Such procurements were made under their coop loan arrangements (64.7%), aside from being coop members (24.5%). A significant number (60.4%) did not encounter any problem regarding their fertilizer supplies from cooperatives while those who did mentioned mainly irregular fertilizer stocks (25.2%).

There were fewer chemical-users among the respondents (52%), using mostly Azodrin (28.2%). Again, these were procured from the cooperatives (65.4%) because of their loan requirements (51.7%).

On the whole, close to two-thirds of the respondents (62.7%) were dependent on rainfall. The average farm-size cultivated was 1.88 hectares of rainfed corn areas. Ricelands, on the other hand, were approximately 1.53 hectares (irrigated) and 1.02 hectares rainfed - on the average. They experienced at least two harvest seasons from October 1989 to December 1990 at an average of 56.64 sacks per harvest, with a computed average of 52.83 kilos a sack. Corn was harvested approximately 2.02 times in the same period, at an average of 40.12 sacks of shelled corn per hectare, with a computed average of 70.98 kilos per sack.

More than half (51.3%) of the respondents were aware of the post-harvest facilities of the cooperatives through their general assemblies (64.9%). More than three-fourths (85.7%) of these used the facilities, mainly the trucks for hauling farm produce (98.5%). A little over three-fourths (75.8%) claimed that payments were made for using these facilities, particularly the trucks (98%). More than half (52%) noted problems regarding the use of these facilities, specifically the inadequate number of hauler trucks given the

number of coop members to be served (46%). Again, the members concerned failed to do anything other than "just wait for the hauler" (52.8%).

The farm produce sold to the cooperatives (94%) represented their loan payments (63.3%). More than half (59.2%) of the corn farmers sold all their corn produce, while most of the rice farmers (45.0%) sold half of their rice produce. More than half of the respondents (60%) reported having encountered problems in selling their farm produce to cooperatives, foremost of which being the delayed remittance of payment (48.3%). The members appear to have had no other recourse except "to wait till the payment is released" (65.5%).

More than three-fourths (87%) of the respondents received technical assistance from the cooperatives, predominantly related to farm management (60.5%). Almost all (98.2%) considered the technical assistance useful, particularly with regard to farm management, which resulted in their improved production (50.9%). Less than a fifth (19.3%) claimed to have encountered problems related to technical assistance received - notably, the lack of technicians (68.2%). To solve the latter, a number of farmers (63.6%) sought the assistance of their peers.

The majority (90%) attended the seminars conducted by the cooperatives, particularly the "pre-membership seminars" (70.4%). These trainings were considered useful (96.3%), inasmuch as they were taught skills in proper farm management (52.6%).

All were aware of the cooperative loan requirements, mainly the accomplishment of forms (40.7%).

All the respondents claimed to have participated in the activities of the cooperatives, with more than half (68.7%) rating themselves "active" in such activities. The activities mostly participated in were general assemblies (57.3%) and meetings (55.3%).

Less than a third (31.3%) of the respondents claimed that they received assistance from other agencies, particularly the "Rice Production Enrichment Program" (RPEP) of the Department of

### Agriculture (93.6%).

A limited group (10%) reported having some form of personal savings, over and above the forced savings and savings deposits in the cooperative. Those who did, usually keep their savings at home.

Almost three-fourths (73.3%) of the respondents perceived their income as inadequate to cover family expenses. Such limitations were solved either by borrowing money from money lenders/relatives/friends (48.2%) or by selling farm animals (45.5%).

More than three-fourths (77.3%) noted changes in their income from 1989 to 1990. More than half (69%) of those who did report noted income-decreases (at approximately 39.6%) while 31 percent perceived gains in income (roughly 38.6%). Those farmers whose incomes increased used the additional funds mainly for tuition (41.1%) and payment of outstanding loans (36.1%). Based on a ten-point ladder scale [from "minimum" to (1) to "maximum" (10)], they generally perceived their farm income to be on "Step 4.5".

Asked about their various perceptions on the cooperatives, the respondents commented that the cooperatives were properly managed (35.3%), that technical assistance was "good for it helped the members regarding proper farm management" (29.3%), that the loans helped reduce expenses for farm inputs (28%), that the cooperatives had limited post-harvest facilities (36.7%), and that the trainings provided additional knowledge on proper farm management (36.7%).

Recommendations were likewise solicited from the group. The most frequently cited recommendation focused on human resource development [e.g. more trainings for the members (71.4%), continuing technical assistance (41.8%) and more technicians for the members (37.3%)], more post-harvest facilities (50.5%), continuing loan assistance (36.3%) and the continued proper management of the cooperatives (16.4%).

### Summary of Findings and Recommendations

The mid-term review revealed the various accomplishments of the five self-help cooperatives relative to the program objectives and

baseline survey results.

The financial assistance provided to farmer-beneficiaries under the program appeared to be a major catalyst for these cooperatives' achievements. It encouraged increases in coop membership, which, in turn, increased the cooperatives' CBU through the members' share capital, and allowed them to engage in other cooperative-types of activities such as marketing, merchandising and production loans, thus increasing their earning capacity. These achievements likewise helped the cooperatives appreciate the need for building and strengthening linkages, not only for the development of the cooperatives themselves but for that of the individual members as well.

The achievements of the cooperatives vis-a-vis the program objectives were as follows:

1. More than three-fourths (85% or 458 farmer-members) of the targeted 550 farmer-members by the end of the program have been extended financial assistance by the cooperatives through the production loan scheme.
2. The repayment rate of loans availed of by the farmer-members is high, i.e. 89.4 percent and 80 percent in the second (Phase II) and third (Phase III) cropping periods, respectively. This was facilitated by the marketing assistance provided by the cooperatives for their members and the mechanism of deducting the loans and the interest incurred based on the crop-produce delivered to the coop.
3. The cooperatives doubled (109.45%) their capital build-up from the baseline level. This likewise indicated the increase in the capital build-up of the members. However, the CBUs generated by each of the five self-help cooperatives were less than the P345,000 that should have been generated for the coop and the P2,250 per member halfway through the program implementation. This situation could be due, as reported by the farmers, to their minimal production brought about by the long dry season from the last quarter of 1990 to the early part of the second quarter of 1991.
4. Community organizing appeared to be effective as indicated

by the number of *seldas* organized (51 *seldas*); increases in the number of individual (44.9%) and group (1,004.5%) members from the baseline level, and the type and number of trainings conducted, including the number of coop-leaders and farmer-participants in these trainings. The *seldas* serve not only as a mechanism through which farmers' solidarity has been fostered but likewise as a venue for the conceptualization of various viable income-generating projects, such as seed production and compact-farming, as indicated by some coops (e.g. Antipas and New Cebu). Likewise, it is interesting to note the comments of the coop managers that the *seldas* were not effective in their function as a pressure group for members in loan repayments.

5. The collateral-free and low-interest loan assistance provided for the farmer-beneficiaries appears to have reduced the opportunities for exploitation of the farmers by unscrupulous traders. As indicated by survey results, 94 percent of the respondents sold their produce to the cooperatives, while 92.6 percent acquired fertilizers and 65.4 percent acquired chemicals directly from the cooperatives. However, it is interesting to note that, during the mid-term review period, most of the farmers delivered only the required number of kilos of their produce to the coop, representing loan payments and forced savings. The remaining portion of the farm produce was delivered to the local traders as payment for their outstanding cash-loans. Such practices will hopefully diminish as the coop loan-assistance program is strengthened in the coming years, with corresponding reduced roles of local traders.

6. At least four of the five cooperatives have been duly registered during the review-period. Such requirements are necessary should the cooperatives decide to secure funds from other funding agencies.

7. The federation of the five self-help cooperatives has been conceptualized and is presently accumulating financial capital necessary for its initial marketing activities.

8. The five cooperatives registered varying net-income figures. M'lang and New Cebu revealed a tremendous increase in income (49.859% and 786.3%, respectively) while Matalam, Magpet and

Antipas reported income decreases (72.2%, 8.7% and 88.2%, respectively).

Despite the adverse effects of the long dry season experienced by the farmer-members, M'lang - a lowland, rice-producing and irrigated municipality - reported income increases which could be attributed to the additional financial assistance acquired from the Quedan Financing Program and Land Bank.

On the other hand, the income-increases in New Cebu could perhaps be attributed to their collection of P0.10 per kilo of rice or corn sold by the members to the coop as a marketing service fee.

Meanwhile, the upland corn-producing municipality of Antipas, Magpet and Matalam were adversely affected by the drought, resulting in decreases in farmers' income. This consequently affected the capability of the members to increase farm production and to repay their loans, including the interest incurred from such loans.

The minimal production income discouraged the farmer-beneficiaries from availing of crop insurance from Philippine Crop Insurance Corporation (PCIC), aside from the high cost of insurance and the delayed payment-releases for damaged crops by PCIC.

All of these affected the earning capacity of the members.

9. The post harvest facilities made available to the farmer-members were mainly limited to truck-haulers.

10. Only 2.4% (27 out of 1,107 members) are reported to have savings deposits in the cooperative, aside from the forced savings from each beneficiary.

### Recommendations

The following recommendations are proposed for the cooperatives, including the program-implementor and the farmer-beneficiaries. 1. The cooperatives indicated significant achievements after one-and-a-half years of program

implementation. This should be sustained by continuing the monthly project staff monitoring so that problems relative to improved coop management will be readily addressed.

2. The findings indicated that the collection on loans and loan-interest is generally high in Phase II and a bit lower in Phase III due to the long drought season during this cropping period. It is then recommended that the current collection procedures be both sustained and improved to attain a 100 percent collection-rate. However, it is likewise necessary to require the "*seldas*" to plan and design various income-generating activities as secondary income sources for farmers' households. This will not only provide the members a continuous source of income but will likewise provide additional funds for loan-payments, interests, and capital build-up requirements in case of crop failures caused by natural calamities. Furthermore, focus group discussions among program staff, coop leaders, and members serve as effective venues for sharing experiences, planning, and discussing effective program implementation strategies relative to collection procedures and coop management as a whole.

3. The collected capital build-up, both of the cooperatives and the members, falls below the P345,000 per cooperative and P2,250 per member that should have been generated halfway through the program implementation. This situation could perhaps be resolved if the *seldas* will be properly motivated to conceptualize and implement income-generating projects, given their existing skills and the available resources in their respective communities. They can venture into handicrafts or the manufacture of novelties and the like. Corresponding "environmental scanning" and "commodity-flow" studies may be undertaken by the cooperatives or federation to determine the feasibility of these industries relative to the availability of resources and marketing channels.

4. The high fertilizers (99.3%) and chemicals (52%) usage among the respondents, usually procured from the cooperatives (92.6% and 65.4%, respectively), are indicative of the effectiveness of the loan-program in re-directing the heretofore established relationships of the farmer-beneficiaries from the local traders to the cooperatives. The loan-assistance scheme should therefore be sustained to allow a fuller appreciation of the value and importance of patronizing the

cooperatives by the farmer-beneficiaries. Such interests could likewise be pursued through a series of value-formation sessions among farmer-members and their households, focusing on the above-mentioned value, to ensure the importance of coop-patronage through actual practice with or without production loans prior to the end of the project grant-period.

5. More than half (51.4%) of the respondents were aware of the post-harvest facilities of the cooperatives, indicating the extent of services offered to the beneficiaries, the type of communication between the coop management and the beneficiaries and the level of participation of the beneficiaries in the activities of the cooperatives such as meetings or general assemblies. This could be properly addressed by designing a communication scheme through which beneficiaries are well informed on the various developments of their cooperatives and its programs. This will make them feel more important and most likely provide due respect for and support to the cooperatives. Perhaps this could be done by tapping the *seldas* to establish periodic meetings with the coop management for updates and dissemination to *selda*-members. A bulletin board in *selda*-centers is necessary through which information about coop development, important for the improvement of the farmers' statuses, will be relayed.

6. A little over three-fourths (75.8%) of the respondents reported that corresponding payments or charges were made on the use of the post-harvest facilities. However, the data showed that some of the respondents within the same coop claimed that they were not being charged for the use of such facilities. This situation should be corrected as this might cause possible conflicts among the members and, subsequently, affect the capability and sustainability of the cooperatives. Likewise, the problems of the respondents in the use of the facilities and their respective solutions should be taken into consideration in planning appropriate actions to enhance services provided to coop-members.

7. Though the findings indicate that the majority of the respondents received technical assistance trainings, the program implementors should be conscientious in making these services available to all beneficiaries. This will provide them not only with additional knowledge but eventually develop among them the

capability of identifying various opportunities relative to their development.

8. The production loan was found to be useful for the beneficiaries. However, the data showed that more than half (53.3%) of the respondents have either partially paid or not paid the loans as of the survey period. As explained earlier, this might possibly be due to the drought-season. It is at this instance that the program implementors should discuss with the beneficiaries the appropriate re-structuring of the loan requirements. The funding agency should be appropriately informed of whatever changes are agreed upon to avoid miscommunications.

9. The findings revealed that all the respondents are aware of the coop requirements on production loans. This should be sustained through constant communication with the beneficiaries.

10. Except for two respondents, the rest were actively participating in the activities of the cooperatives. However, their participation was limited to attendance in meetings, general assemblies and seminars or trainings. It is recommended that the program implementors design other mechanisms or strategies with the beneficiaries that will enhance not only their attendance but also their capability to think and decide on their own, with the implementors acting as facilitators. This will gradually prepare the members for the eventual phasing out of the program.

11. The program generally developed the value of savings among the respondents through forced savings. This is indicated by the increases in the current capital build-up from initial capital build-up of the respondents. This program should be sustained and strengthened by subsequent discussions on the value and importance of savings. Otherwise, the beneficiaries will not appreciate such requirements, resulting in non-cooperation and lack of support among the members.

12. More than two-thirds (73.3%) of the respondents claimed that their income was not enough to cover family expenses. This suggests the need for the program implementors to design other income generating activities to augment the farm income of the beneficiaries. Such a need might serve as a relevant entry point for

the program implementors to utilize the CO-PAR (Community Organizing through Participatory Action Research) approach on the target-communities, wherein cooperative members undertake research, plan, monitor and evaluate the implemented plans. This approach will not only develop the members but also ensure the sustainability of the program even beyond the project-period.

13. Given the review of the records available at the project-office, there is a need to improve the documentary requirements of the program until the end of the project period. It is thus recommended that a seminar-workshop for the implementors, relative to the preparation and submission of standard reports, be undertaken with the program-evaluators. This will subsequently prepare the implementors for the terminal evaluation-phase of the program.

Table 1

## Number of Hectares Currently Cultivated

Number of Hectares Currently Cultivated	Survey Sites											
	Matalam		M'lang		New Cebu		Antipas		Magpet		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
.5 - 1.4	6	20.0	20	66.7	6	20.0	3	10.0	13	43.3	48	32.0
1.5 - 2.4	18	60.0	10	33.3	15	50.0	13	43.3	15	50.0	71	47.3
2.5 - 3.4	3	10.0	-	-	4	13.3	7	23.3	1	3.3	15	10.0
3.5 - 4.4	1	3.3	-	-	2	6.7	4	13.3	-	-	7	4.7
4.5 - 5.4	2	6.7	-	-	2	6.7	2	6.7	1	3.3	7	4.7
5.5 - 6.5	-	-	-	-	1	3.3	1	3.3	-	-	2	1.3
TOTAL	30	100	30	100	30	100	30	100	70	100	150	100
MEAN	2.1		1.3		2.35		2.68		1.65		2.0	

Table 2

## Number of Hectares Previously Cultivated

Number of Hectares Currently Cultivated	Survey Sites											
	Matalam		M'lang		New Cebu		Antipas		Magpet		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
.5 - 1.4	13	43.3	19	63.3	7	23.3	8	26.7	15	50.0	62	41.3
1.5 - 2.4	9	30.0	11	36.7	13	43.3	9	30.0	13	43.3	55	36.7
2.5 - 3.4	6	20.0	-	-	6	20.0	7	23.3	1	3.3	20	13.3
3.5 - 4.4	2	6.7	-	-	2	6.7	4	13.3	-	-	8	5.3
4.5 - 5.4	-	-	-	-	1	3.3	1	3.3	1	3.3	3	2.0
5.5 - 6.5	-	-	-	-	1	3.3	1	3.3	-	-	2	1.3
TOTAL	30	100	30	100	30	100	30	100	30	100	150	100
MEAN	1.85		1.3		21.28		2.4		1.58		1.89	

Table 3

## Expansion of Land Area Cultivated

Number of Hectares Currently Cultivated	Survey Sites											
	Matalam		M'lang		New Cebu		Antipas		Magpet		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
Expansion of Land Area												
Yes	12	40.0	3	10.0	2	6.7	8	26.7	2	6.7	27	18.0
No	18	60.0	27	90.0	28	93.3	22	73.3	28	93.3	123	82.2
Total	30	100	30	100	30	100	30	100	30	100	150	100
Number of Hectares Expanded												
.5 - .9	2	16.7	2	66.7	-	-	-	-	-	-	4	14.8
1.0 - 1.4	9	75.0	1	33.3	1	50.0	6	75.0	2	100	19	70.3
1.5 - 1.9	-	-	-	-	-	-	2	25.0	-	-	2	7.4
2.0 - 2.4	1	8.3	-	-	1	50.0	-	-	-	-	2	7.4
MEAN	1.2		1.3		1.7		1.3		1.2		1.2	



## Survey Sites

Fertilizer Usage	Matalam		M'lang		New Cebu		Antipas		Magpet		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
<b>Sources of Fertilizers:</b>												
Cooperative	28	93.3	23	79.3	29	96.7	30	100	139	92.6		
Traders within the Survey Sites	1	3.3	6	20.7	1	3.3	1	3.3	-	-	9	6.0
Traders out side the Survey Site	1	3.3	-	-	-	-	-	-	-	-	1	0.7
Coop/Traders	-	1	3.4	-	-	-	-	-	-	-	1	0.7

Table 8

## Reasons for Buying Fertilizers from the Cooperatives and Traders

## Survey Sites

Reasons	Matalam	M'lang	New Cebu	Antipas	Magpet	Total						
<b>Reasons for Buying from Cooperatives</b>												
	(n = 28)	(n = 23)	(n = 29)	(n = 29)	(n = 30)	(n = 139)						
It is a loan	27	96.4	15	65.2	17	58.6	7	24.1	24	80.0	90	64.7
Member of the Coop	3	10.3	8	34.8	10	34.5	3	10.3	10	33.3	34	24.5
Low Interest	-	-	-	-	6	20.7	-	-	-	-	6	4.3
Delivered upon Request	-	-	-	-	2	6.9	-	-	-	-	2	1.4
Cheap Loan	-	-	-	-	1	3.4	-	-	-	-	1	0.7
<b>Reasons for Buying from Traders</b>												
	(n = 2)	(n = 7)	(n = 1)	(n = 1)		(n = 11)						
Not Available in Cooperative	2	100	3	42.9	1	100	1	100	-	-	7	63.6
Endorsed by the Cooperative	-	-	2	28.6	-	-	-	-	-	-	2	18.2
Cheaper Cooperative	-	-	2	28.6	-	-	-	-	-	-	2	18.2
Cooperative has no Stock	-	-	-	-	1	100	-	-	-	-	1	9.1

Table 9

## Problems in Procuring Fertilizers from Cooperatives

## Survey Sites

Problems Planted	Matalam (n = 28)	M'lang (n = 23)	New Cebu (n = 29)	Antipas (n = 29)	Magpet (n = 30)	Total (n = 139)
No problems	12	5	24	22	21	84
Sometimes no stock	42.9	21.7	82.8	75.9	70.0	60.4
Expensive fertilizer	12	14	5	2	2	35
High cost of fare	42.9	60.9	17.2	6.9	6.7	25.2
Delayed Delivery	6	9	-	-	-	15
Not available	21.4	39.1	-	-	-	10.8
Delayed Release	2	8	-	2	1	13
Cooperative lacks funds	7.1	34.8	-	6.9	3.3	9.4
Inadequate funds	4	-	-	5	3	12
Cooperative has no transport	14.3	-	-	17.2	10.3	8.6
Poor Roads	8	2	-	-	-	10
Costly to go to the Cooperative just to find out no stock is available	28.6	8.7	-	-	-	7.2
No stock due to lack of cash	-	-	1	3.4	5	6
Delayed Procurement from Davao	-	-	-	-	16.7	4.3
	2	3	-	-	-	5
	7.1	13.0	-	-	-	3.6
	1	3	-	-	-	4
	3.6	13.0	-	-	-	2.9
	2	1	1	3.4	-	4
	7.1	4.3	-	-	-	2.9
	1	-	-	1	3.4	2
	3.6	-	-	-	-	1.4
	1	-	-	-	-	1
	3.6	-	-	-	-	0.7
	1	-	-	-	-	1
	3.6	-	-	-	-	0.7
	-	-	-	1	3.4	1
	-	-	-	-	-	0.7

Table 10

## Solutions to Problems in Procuring Fertilizers from Cooperatives

## Survey Sites

Solutions	Matalam (n = 18)	M'lang (n = 24)	New Cebu (n = 6)	Antipas (n = 8)	Magpet (n = 9)	Total (n = 65)
Wait till stocks are available	6	14	5	2	2	29
Just wanted for the fertilizers to be delivered	33.3	58.3	83.3	25.0	22.2	44.6
Borrowed fertilizers from traders at 20% interest	2	-	-	5	2	9
Done nothing for the high cost of fertilizers	11.1	-	-	62.5	22.2	13.8
Follow-up as to when fertilizers are available	1	6	1	-	-	8
Borrowed money to buy fertilizers	5.6	25.0	16.7	-	-	12.3
Rented transport facilities	2	5	-	-	-	7
Done nothing for high transportation cost	11.1	20.8	-	-	-	10.8
Used manure	2	11.1	-	-	5	7
Stay overnight to wait for the stock to avoid extra transport expense	11.1	-	-	-	55.5	10.8
	2	2	1	-	-	4
	11.1	8.3	16.7	-	-	6.2
	1	1	1	-	-	3
	5.6	4.2	16.7	-	-	4.6
	-	-	-	2	1	3
	-	-	-	55.0	11.1	4.6
	1	1	-	-	-	2
	5.6	4.2	-	-	-	3.1
	-	1	4.2	-	-	1
	-	-	-	-	-	1.5
	1	-	-	-	-	1
	5.6	-	-	-	-	1.5

Table 11

Solutions to Problems in Procuring  
Fertilizers from Cooperatives

## Survey Sites

Solutions	Matalam (n = 18)		M'lang (n = 24)		New Cebu (n = 6)		Antipas (n = 8)		Magpet (n = 9)		Total (n = 65)	
	F	%	F	%	F	%	F	%	F	%	F	%
Reduce dosage fertilizers due to its high cost	1	5.6	-	-	-	-	-	-	-	-	1	1.5
Cooperative to give cash	1	5.6	-	-	-	-	-	-	-	-	1	1.5
Cooperative buys from other stores	1	5.6	-	-	-	-	-	-	-	-	1	1.5

Table 12

## Type of Farm Relative to Water Source

## Survey Sites

Type of Farm	Matalam		M'lang		New Cebu		Antipas		Magpet		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
Irrigated	5	13.3	16	53.3	12	40.0	-	-	3	10.0	36	23.3
Rainfall	25	86.7	2	6.7	11	36.7	30	100	25	83.3	93	62.7
Irrigated/ Rainfed	-	-	1	3.3	7	23.3	-	-	2	6.7	10	6.7
Water Pump	-	-	8	26.7	-	-	-	-	-	-	8	5.3
Flowing	-	-	3	10.0	-	-	-	-	-	-	3	2.0
TOTAL	30	100	30	100	30	100	30	100	30	100	150	100

Table 13

Number of Hectares Irrigated and Rainfed:  
Rice and Corn Areas

## Survey Sites

Number of Hectares	Matalam		M'lang		New Cebu		Antipas		Magpet		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
<b>A. Irrigated Rice Farms</b>	(n = 5)		(n = 28)		(n = 19)		(n = 19)		(n = 5)		(n = 57)	
.5 - 1.4	-	-	19	67.9	9	47.4	-	-	4	80.0	32	56.1
1.5 - 2.4	3	60.0	9	32.1	6	31.6	-	-	1	20.0	19	33.3
2.5 - 3.4	2	40.0	-	-	2	10.5	-	-	-	-	4	7.0
3.5 - 4.4	-	-	-	-	2	10.5	-	-	-	-	2	3.5
Mean	2.35		1.27		1.79		1.15		1.53			
<b>B. Rainfed Rice Farms</b>	(n = 2)		(n = 2)		(n = 2)		(n = 8)		(n = 1)		(n = 15)	
.5 - 1.4	2	100	2	100	7	87.5	1	100	14	93.3	-	-
1.5 - 2.4	-	-	-	-	-	-	1	12.5	-	-	1	6.7
Mean	0.95		0.95		0.95		1.2		0.95		1.02	
<b>C. Number of Rainfed Corn Areas</b>	(n = 5)		(n = 28)		(n = 19)		(n = 19)		(n = 5)		(n = 57)	
.5 - 1.4	9	34.6	1	100	7	38.9	4	13.3	17	65.4	38	37.6
1.5 - 2.4	13	50.0	0	0	10	55.5	17	56.7	12	46.2	47	46.5
2.5 - 3.4	1	3.8	-	-	-	-	54	16.7	1	3.8	7	6.9
3.5 - 4.4	1	3.8	-	-	1	5.6	2	6.7	-	-	4	4.0
4.5 - 5.4	2	7.7	-	-	-	-	1	3.3	1	3.8	4	4.0
5.5 - 6.4	-	-	-	-	-	-	1	3.3	-	-	1	1.0
Mean	1.95		0.95		1.67		2.35		1.26		1.88	

Table 14

Rice Production Per Hectare Per Cropping  
Since October 1989 to December 1990

## Survey Sites

Rice Pro- Production Per Hectare	Matalam (n = 7)	M'lang (n = 30)	New Cebu (n = 21)	Antipas (n = 8)	Magpet (n = 6)	Total (n = 72)						
<b>Number of Harvests:</b>												
1	3	42.9	4	13.3	-	-	5	62.5	1	16.7	13	18.1
2	4	57.1	21	70.0	14	66.7	2	25.0	5	83.3	46	63.9
3	-	-	5	16.7	7	33.3	1	12.5	-	-	13	18.0
Mean	1.58	2.03	2.33	1.5	1.83	2.0						

Average Number of  
Sacks of Rice  
Harvested Per  
Hectare

	(n = 7)	(n = 30)	(n = 21)	(n = 8)	(n = 6)	(n = 72)						
5 - 19	1	14.3	1	3.3	2	9.5	-	-	-	-	4	5.6
20 - 34	1	14.3	-	-	7	33.3	6	75.0	-	-	14	19.4
35 - 49	-	-	1	3.3	3	14.3	-	-	1	16.7	5	6.9
50 - 64	3	42.8	6	20.0	6	28.6	1	12.5	3	50.0	17	26.4
65 - 79	-	-	10	33.3	2	9.5	1	12.5	-	-	13	18.1
80 - 94	2	28.6	11	36.7	1	4.8	-	-	2	33.3	16	22.2
95 - 109	-	-	1	3.3	-	-	-	-	-	-	1	1.4
Mean	54.86	72.5	42.4	36.38	64.5	56.64						

Average  
Number of  
Kilos per  
Sack of Rice  
Harvested  
Per Hectare

	(n = 7)	(n = 30)	(n = 21)	(n = 8)	(n = 6)	(n = 72)						
40 - 59	6	85.7	28	93.3	20	95.2	7	7.5	2	33.3	63	87.5
60 - 79	1	14.3	2	6.7	1	4.8	-	-	2	33.3	3	4.2
80 - 99	-	-	-	-	-	-	1	12.5	2	33.3	3	4.2
Mean	52.36	50.83	50.45	54.5	68.17	52.83						

Table 15

Corn Production Per Hectare Per Cropping  
Since October 1989 to December 1990

## Survey Sites

Corn Production Per Hectare	Matalam (n = 26)	M'lang (n = 1)	New Cebu (n = 18)	Antipas (n = 30)	Magpet (n = 26)	Total (n = 101)						
<b>Number of Harvests:</b>												
1	2	7.7	1	100	1	5.6	5	16.7	4	15.4	13	12.9
2	20	76.9	-	-	13	72.2	19	63.3	21	80.9	73	72.3
3	4	15.4	-	-	4	22.2	6	20.0	1	3.8	15	14.8
Mean	2.08	1.0	2.17	2.03	1.88	2.02						
<b>Average Number of Sacks of Corn Harvested Per Hectare</b>	(n = 26)	(n = 1)	(n = 18)	(n = 30)	(n = 26)	(n = 101)						
5 - 19	5	19.2	1	100	1	5.5	4	13.3	9	34.6	20	19.8
20 - 34	13	50.0	0	0	6	33.3	9	30.0	4	15.4	32	31.7
35 - 49	6	23.1	-	-	3	16.7	5	16.7	7	26.9	21	20.8
50 - 64	-	-	-	-	3	16.7	3	10.0	5	19.2	11	10.9
65 - 79	2	7.7	-	-	2	11.1	4	13.3	1	3.8	9	8.9
80 - 94	-	-	-	-	1	5.5	-	-	-	-	1	1.0
95 - 109	-	-	-	-	2	11.1	5	16.7	-	-	7	6.9
Mean	31.04	12.0	50.33	49.0	33.35	40.12						
<b>Average Number of Kilos per Sack of Shelled Corn</b>	(n = 26)	(n = 1)	(n = 18)	(n = 30)	(n = 26)	(n = 101)						
50 - 59	-	-	1	100	-	-	-	-	-	-	1	1.0
60 - 69	1	3.8	-	-	2	11.1	-	-	4	15.4	7	6.9
70 - 79	1	3.8	-	-	3	16.5	2	6.6	9	34.6	15	14.8
80 - 89	16	61.5	-	-	12	66.7	23	76.7	12	46.2	63	62.4
90 - 99	8	30.8	-	-	1	5.5	5	16.7	1	3.8	15	14.8
Mean	86.42	54.5	81.17	85.5	78.35	70.98						

Table 16

## Utilization of the Post-Harvest Facilities of the Cooperative

## Survey Sites

Utilization of Post-Harvest Facilities	Matalam	M'lang	New Cebu	Antipas	Magpet	Total
<b>Use of Post-Harvest Facilities</b>	(n = 26)	(n = 1)	(n = 18)	(n = 30)	(n = 26)	(n = 101)
Yes	2 66.7	29 100	14 100	21 70.0	- -	66 85.7
No	1 33.3	- -	- -	9 30.0	1 100	11 14.3
<b>Post-Harvest Facilities Used</b>	(n = 2)	(n = 29)	(n = 14)	(n = 21)		(n = 66)
Drier Trucks	- -	5 17.2	2 14.3	- -	- -	7 10.6
	2 100	28 96.6	14 100	21 100	- -	65 98.4
<b>Post-Harvest Facilities with Charges</b>	(n = 26)	(n = 1)	(n = 18)	(n = 30)	(n = 26)	(n = 101)
Drier Trucks	- -	5 33.3	1 7.1	- -	- -	6 10.0
	1 100	14 93.3	14 100	20 100	- -	49 98.0

Table 17

## Problems in the Use of Post-Harvest Facilities

## Survey Sites

Problems	Matalam (n = 1)	M'lang (n = 15)	New Cebu (n = 14)	Antipas (n = 30)	Magpet	Total (n = 66)
No answer	-	-	5 35.7	-	-	5 10.0
No Problem	-	5 33.3	1 7.1	18 60.0		24 48.0
Hauler is not enough for members	-	8 53.3	7 50.0	8 26.7		23 46.0
Truck is often delayed in transporting rice from residence to Cooperative	-	13 86.7	-	-		16 32.0
Insufficient number of haulers	-	4 26.7	-	-		6 12.0
Decrepit Hauler	1 100		-	3 10.0		4 8.0
Drier not enough for members	-	1 6.7	1 7.1	-		2 4.0
Poor road	-	1 6.7	-	1 3.3		2 4.0
Labor is expensive	-	1 6.7	-	-		1 2.0
Lack of supply of sacks	-	1 6.7	-	-		1 2.0

Table 18

## Solutions to Problems in the Use of Post-Harvest Facilities

Solutions	Survey Sites											
	Matalam (n = 1)		M'lang (n = 10)		New Cebu (n = 13)		Antipas (n = 12)		Magpet		Total (n = 36)	
No answer	-	-	-	-	8	61.5	-	-	-	-	8	22.2
Just wait for the hauler	-	-	10	100	-	-	9	75.0	-	-	19	52.8
Hired other vehicles	-	-	6	60.0	4	30.8	3	25.0	-	-	13	36.1
Done nothing for the delayed hauler -	-	-	10	100	1	7.7	2	16.7	-	-	13	36.1
Done nothing for the decrepit hauler	1	100	-	-	-	-	-	-	-	-	1	2.8
Sold crops to traders	-	-	1	10.0	-	-	-	-	-	-	1	2.8
Hired Horses	-	-	-	-	-	-	1	8.3	-	-	1	2.8

Table 19

## Buyers of Farm Produce

Buyers of Farm Produce	Survey Sites											
	Matalam		M'lang		New Cebu		Antipas		Magpet		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
<b>Marketing Farm Produce</b>												
Yes	30	100	30	100	30	100	30	100	30	100	150	100
No	-	-	-	-	-	-	-	-	-	-	-	-
Total	30	100	30	100	30	100	30	100	30	100	150	100

## Survey Sites

Buyers of Farm Produce	Matalam		M'lang		New Cebu		Antipas		Magpet		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
<b>Buyers of Farm Produce</b>												
Cooperatives	30	100	29	96.7	27	90.0	28	93.3	27	90.0	141	94.0
Traders	-	-	-	-	-	-	2	6.7	3	10.0	5	3.3
Traders/ Cooperative	-	-	1	3.3	3	10.0	-	-	-	-	4	2.7
Total	30	100	30	100	30	100	30	100	30	100	150	100

Table 20

## Reasons for Selling Farm Produce to the Buyers

Survey Sites Buyers of Farm	Reasons for Selling to Buyers											
	Matalam		M'lang		New Cebu		Antipas		Magpet		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
<b>Reasons for Selling to Cooperatives:</b>	(n = 30)		(n = 30)		(n = 30)		(n = 28)		(n = 27)		(n = 145)	
Members of Cooperatives	7	23.3	13	43.3	13	43.3	10	33.3	14	46.7	57	38.0
Payment for Loan	28	93.3	14	46.7	13	43.3	19	63.3	21	70.0	95	63.3
High Buying Price	1	3.3	12	40.0	5	16.7	1	3.3	2	6.7	21	14.0
<b>Reasons for Selling to Traders:</b>			(n = 1)		(n = 3)		(n = 2)		(n = 3)		(n = 9)	
Extra from Cooperative	-	-	1	100	-	-	-	-	-	-	1	8.3
Payment for Credit	-	-	-	-	5	83.3	2	100	3	100	10	83.3
Easy cash	-	-	-	-	1	1.7	-	-	-	-	1	8.3

Table 21

## Marketing of Farm Produce

## Survey Sites

Marketing	Matalam		M'lang		New Cebu		Antipas		Magpet		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
<b>Proportion of Corn Sold</b>	(n = 27)		(n = 1)		(n = 17)		(n = 30)		(n = 23)		(n = 98)	
100	17	63.0	1	100	12	70.5	14	46.7	14	65.4	58	59.2
76 - 99	4	14.8	-	-	2	11.8	8	26.7	3	11.5	17	17.3
75	1	3.7	-	-	-	-	1	3.3	1	3.8	3	3.1
50 - 74	3	11.1	-	-	2	11.8	2	6.7	5	19.2	12	12.2
50	-	-	-	-	1	5.9	4	13.3	-	-	5	5.1
26 - 49	1	3.7	-	-	-	-	1	3.3	-	-	2	2.0
25	-	-	-	-	-	-	-	-	-	-	-	-
1 - 24	1	3.7	-	-	-	-	-	-	-	-	1	1.0
Total	30	100	30	100	30	100	30	100	30	100	150	100
<b>Proportion of Rice Sold</b>	(n = 3)		(n = 30)		(n = 21)		(n = 6)		(n = 60)			
100	-	-	2	6.7	1	4.8	-	-	-	-	3	5.0
76 - 99	-	-	1	3.3	3	14.3	-	-	1	16.7	5	8.3
75	-	-	-	-	6	28.6	-	-	1	16.7	7	11.7
50 - 74	2	66.7	8	26.7	1	4.8	-	-	1	16.7	12	20.0
50	-	-	14	46.7	4	19.0	-	-	2	33.3	20	33.3
26 - 49	-	-	4	13.3	4	19.0	-	-	1	16.7	9	15.0
25	1	33.3	1	3.3	2	9.5	-	-	-	-	4	6.7

Table 22

## Proportion of Rice and Corn Consumed

## Survey Sites

Proportion of Rice and Corn Consumed	Matalam		M'lang		New Cebu		Antipas		Magpet		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
<b>Proportion of Rice Consumed</b>	(n = 5)		(n = 30)		(n = 22)		(n = 5)		(n = 6)		(n = 68)	
100	2	40.0	2	6.7	1	4.5	5	100	-	-	10	14.7
76 - 99	-	-	-	-	-	-	-	-	-	-	-	-
75	-	-	1	3.3	2	9.1	-	-	-	-	3	4.4
50 - 74	-	-	2	6.7	5	23.8	-	-	1	16.7	8	11.8
50	-	-	8	26.7	2	9.1	-	-	1	16.7	11	16.2
26 - 49	2	40.0	7	23.3	2	9.1	-	-	1	16.7	12	17.6
25	-	-	1	3.3	7	31.8	-	-	1	16.6	9	13.2
1 - 24	1	20.0	9	30.0	3	13.6	-	-	2	33.3	15	22.1
<b>Proportion of Corn Consumed</b>	(n = 12)		(n = 0)		(n = 5)		(n = 16)		(n = 9)		(n = 42)	
5 - 9	-	-	-	-	-	-	3	18.8	1	11.1	4	9.5
10 - 15	3	25.0	-	-	2	40.0	5	31.3	1	11.1	11	26.2
15 - 19	2	16.7	-	-	-	-	-	-	1	11.1	11	26.2
20 - 24	1	8.3	-	-	-	-	1	6.2	-	-	2	4.8
25 - 29	1	8.3	-	-	-	-	1	6.2	2	22.2	4	9.5
30 - 34	3	25.0	-	-	-	-	-	-	3	33.3	6	14.3
35 - 39	-	-	-	-	-	-	-	-	-	-	-	-
40 - 44	2	16.7	-	-	2	40.0	1	6.2	1	11.1	6	14.3
45 - 49	-	-	-	-	-	-	1	6.2	-	-	1	2.4
50 - 54	-	-	-	-	1	20.0	4	25.0	-	-	5	11.9

Table 23

## Problems In Selling Farm Produce to Cooperative

Problems	Survey Sites											
	Matalam	M'lang	New Cebu	Antipas	Magpet	Total						
Proportion of Respondents with Marketing Problems	23	76.7	26	86.7	12	40.0	10	35.7	16	59.3	87	60.0
Problems Met												
Delayed remittance of payment	4	17.4	15	57.7	9	75.0	-	-	14	87.5	42	48.3
Low buyer price	11	36.7	6	23.1	2	16.7	5	50.0	1	6.3	25	28.7
Lack of cash	3	13.0	12	46.2	2	16.7	5	50.0	2	12.5	24	27.6
Lack of transportation	2	8.7	1	3.8	4	33.3	2	20.0	-	-	9	10.3
High cost of transportation	7	30.4	-	-	-	-	-	-	-	-	7	8.0
Lack of transportation to haul produce	2	8.7	-	-	-	-	-	-	-	-	2	2.3
Inaccessible transportation	2	8.7	-	-	-	-	-	-	-	-	2	2.3
Poor road	1	4.3	-	-	-	-	-	-	-	-	1	1.1
Floods caused higher transportation cost	1	4.3	-	-	-	-	-	-	-	-	1	1.1
Warehouse is far from the Cooperative	1	4.3	-	-	-	-	-	-	-	-	1	1.1

Table 24

## Solutions to Problems in Selling Farm Produce to Cooperative

Solutions	Survey Sites											
	Matalam (n = 23)	M'lang (n = 26)	New Cebu (n = 12)	Antipas (n = 10)	Magpet (n = 16)	Total (n = 87)						
Waited till the payment is released	5	21.7	25	96.2	6	50.0	6	60.0	15	93.8	57	65.5
Done nothing about the low buying price of crops	8	34.8	-	-	-	-	-	-	1	6.3	11	12.6
Stock the crops in the cooperative when buying price is low	3	13.0	1	3.8	-	-	4	40.0	-	-	8	9.2
Borrowed money from others	1	4.3	4	15.4	3	25.0	-	-	-	-	8	9.2
Apply for cash advances	1	4.3	4	15.4	1	8.3	-	-	-	-	6	6.9
Rented vehicles	3	13.0	-	-	3	25.0	-	-	-	-	6	6.9
Wait till transportation is available	2	8.7	-	-	3	25.0	1	10.0	-	-	6	6.9
Done nothing for high cost of transportation	5	21.7	-	-	-	-	-	-	-	-	5	5.7
Sell some crops to traders to have money	1	4.3	1	3.8	1	3.8	-	-	-	-	3	3.4
Done nothing for the poor road	1	4.3	4	15.4	3	25.0	-	-	-	-	2	2.3

Table 25

## Technical Assistance Received

Technical Assistance Received	Survey Sites											
	Matalam (n = 25)		M'lang (n = 29)		New Cebu (n = 27)		Antipas (n = 24)		Magpet (n = 26)		Total (n = 131)	
<b>Received Technical Assistance:</b>												
No	8	32.0	1	3.4	-	-	3	12.5	5	19.2	17	13.0
Yes	17	68.0	28	96.6	27	100	21	87.5	21	80.8	114	87.0
<b>Type of Technical Assistance Received:</b>												
Farm management	5	29.4	21	75.0	18	66.7	10	47.6	15	71.4	69	60.5
Proper use of fertilizer	3	17.6	2	7.1	3	11.1	3	14.3	4	19.0	15	13.2
Seed production	2	11.5	-	-	-	-	7	33.3	5	23.8	14	12.3
Loans	2	11.8	3	10.7	4	14.8	4	19.0	-	-	13	11.4
Proper use of chemicals	2	11.5	7	25.0	1	3.7	2	9.5	-	-	12	10.5
Soil analysis	4	23.5	1	3.6	3	11.1	-	-	-	-	8	7.0
Rapid Composting	1	5.9	4	14.3	-	-	1	4.8	-	-	6	5.3
Organic fertilizer	1	5.9	3	10.7	-	-	-	-	1	4.8	5	4.4
Proper seed	3	11.5	-	-	-	-	1	4.8	-	-	3	2.6
New farm technology	1	5.9	-	-	-	-	-	-	-	-	1	0.9
Integrated Pest Management	-	-	1	3.6	-	-	-	-	-	-	1	0.9

Table 26

## Technical Assistance Received

Problems in Availing Technical Assistance	Survey Sites											
	Matalam (n = 17)		M'lang (n = 28)		New Cebu (n = 27)		Antipas (n = 21)		Magpet (n = 21)		Total (n = 114)	
Number with Problems in Availing Technical Assistance	5	29.4	11	39.3	2	7.4	2	9.5	2	9.5	22	19.3
Problems Met:	(n = 5)		(n = 11)		(n = 2)		(n = 2)		(n = 2)		(n = 22)	
Lack of technicians	3	60.0	8	72.7	2	100	1	50.0	1	50.0	15	68.2
Limited technical assistance given	2	40.0	3	27.3	1	50.0	1	50.0	-	-	7	31.8
Delayed response for the request	2	40.0	2	18.2	-	-	-	-	-	-	4	18.2
Process of organic farming is tedious	-	-	-	-	-	-	1	50.0	1	50.0	2	9.1

Table 27

## Solutions to Problems in Technical Assistance

Solutions	Survey Sites											
	Matalam (n = 5)		M'lang (n = 11)		New Cebu (n = 2)		Antipas (n = 2)		Magpet (n = 2)		Total (n = 22)	
Asked other farmers for assistance	4	80.0	8	72.7	2	100	-	-	-	-	14	63.6
Done nothing for lack of technicians	3	60.0	2	18.2	-	-	1	50.0	1	50.0	7	31.8
Done nothing for the limited assistance	-	-	3	27.3	-	-	1	50.0	-	-	4	18.2
Slowly followed the process of organic farming	-	-	-	-	-	-	1	50.0	1	50.0	2	9.1

Table 28

## Rating of Participation in the Activities Undertaken by the Cooperative

Fertilizer Usage	Survey Sites											
	Matalam		M'lang		New Cebu		Antipas		Magpet		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
Very Active	13	43.3	17	56.7	6	20.0	3	10.0	5	16.7	44	29.3
Active	16	53.3	12	40.0	23	76.7	27	90.0	25	83.3	103	68.7
Not Active	1	3.3	1	3.3	1	3.3	-	-	-	-	2	3.0
Total	30	100	30	100	30	100	30	100	30	100	150	100

Table 29

## Activities Undertaken by the Cooperative for the Members

Activities	Survey Sites											
	Matalam		M'lang		New Cebu		Antipas		Magpet		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
General												
Assemblies	15	50.0	29	96.7	15	50.0	15	50.0	12	40.0	86	57.3
Meetings	16	53.3	25	83.3	10	33.3	6	20.0	26	86.7	83	55.3
PMS	14	46.7	6	20.0	10	33.3	8	26.7	8	26.7	46	30.7
Loans from Members	8	26.7	2	.7	3	10.0	12	40.0	2	6.7	27	18.0
Seminar on Seed Production	1	3.3	-	-	1	3.3	12	40.0	1	3.3	15	10.0
Seminars on Farm Management	-	-	1	3.3	5	16.7	6	20.0	1	3.3	13	8.7
Seminars on Soil Analysis	-	-	-	-	4	13.3	7	23.3	1	3.3	12	8.0
Project Orientation	-	-	1	3.3	5	16.7	3	10.0	-	-	9	6.0
Training on how to use Fertilizers properly	2	6.7	-	-	-	-	2	6.7	1	3.3	5	3.3
Give Credit Line	1	3.3	-	-	-	-	-	-	-	-	1	0.7
Credit Assistance	1	3.3	-	-	-	-	-	-	-	-	1	0.7
Forced Savings	-	-	1	3.3	-	-	-	-	-	-	1	0.7
Compost Farming	-	-	1	3.3	-	-	-	-	-	-	1	0.7
Merchandising	-	-	1	3.3	-	-	-	-	-	-	1	0.7

Table 30

## Assistance from Other Groups/Agencies

Receipt of Assistance	Survey Sites											
	Matalam		M'lang		New Cebu		Antipas		Magpet		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
Assistance Received:												
None	24	80.0	10	33.3	21	70.0	29	96.7	19	63.3	103	68.7
Yes	6	20.0	20	66.7	9	33.3	1	3.3	11	36.7	47	31.3
Type of Assistance Received:												
RPEP	6	100	19	95.0	9	100	-	-	10	90.1	44	93.6
Bigay ng Bayan	1	16.7	-	-	-	-	-	-	-	-	1	2.1
Water Management	1	16.7	-	-	-	-	-	-	-	-	1	2.1
Loan	-	-	-	-	-	-	1	100	1	9.1	2	4.3
PRRM	-	-	1	5.0	-	-	-	-	-	-	1	2.1

Table 31

## Comparison of Income Received from Farming to Family Expenses for the Last 12 Months

Perceptions About Farm Income Relative to Family Expenses	Survey Sites											
	Matalam		M'lang		New Cebu		Antipas		Magpet		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
Farm income was enough to cover family expenses	9	30.0	6	20.0	6	20.0	9	30.0	5	16.7	35	23.3
Farm income was not enough to cover family Expenses	20	66.7	22	73.3	24	80.0	21	70.0	23	76.7	110	73.3

Table 32

## Assistance from Other Groups/Agencies

Receipt of Assistance	Survey Sites											
	Matalam		M'lang		New Cebu		Antipas		Magpet		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
Farm income was not enough to cover family Expenses	20	66.7	22	73.3	24	80.0	21	70.0	23	76.7	110	73.3
There was an excess of farm income relative to farming expenses	1	3.3	2	6.7	-	-	-	-	2	6.6	5	3.3
Total	30	100	30	100	30	100	30	100	30	100	150	100

Table 33

## Changes in Family Income (1989 - 1990)

Change in Income	Survey Sites											
	Matalam		M'lang		New Cebu		Antipas		Magpet		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
Number of Respondents with Income Changes	29	96.7	23	76.7	27	90.0	15	50.0	22	73.3	116	77.3
Percentage increases in income:	(n = 14)		(n = 8)		(n = 7)		(n = 2)		(n = 5)		(n = 36)	
Don't know	3	21.4	1	12.5	-	-	-	-	-	-	4	11.1
1 - 20	2	14.3	-	-	6	85.7	1	50.0	3	60.0	4	11.1
21 - 40	6	42.9	-	-	-	-	-	-	1	20.0	7	19.3
41 - 60	1	7.1	2	25.0	-	-	-	-	1	20.0	4	11.1

## Survey Sites

Change in Income	Matalam		M'lang		New Cebu		Antipas		Magpet		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
61 - 80	1	7.1	4	50.0	1	14.3	-	-	-	-	6	16.7
81 - 100	1	7.1	1	12.5	-	-	1	50.0	-	-	3	8.3
Mean Percent Increase	37.8		67.6		19.1		50.5		22.5		38.6	
<b>Percentage decreases in income:</b>	(n = 14)		(n = 8)		(n = 7)		(n = 2)		(n = 5)		(n = 36)	
Don't Know	2	13.3	1	6.7	-	-	-	-	-	-	3	3.8
1 - 20	3	20.0	4	26.7	9	45.0	1	7.7	9	52.9	26	32.5
21 - 40	2	13.3	1	6.7	6	30.0	2	15.4	4	23.5	15	18.7
41 - 60	5	33.3	4	26.6	-	-	4	30.8	1	5.9	14	17.5
61 - 80	2	13.3	5	33.3	4	20.0	6	46.1	1	2	11.8	19
23.7												
81 - 100	1	6.7	-	-	1	5.0	-	-	1	5.9	3	3.8
Mean Percent Decrease	44.3		44.8		32.5		53.6		29.3		39.6	

Table 34

## Utilization of Any Additional Income

## Survey Sites

Utilization of Additional	Matalam		M'lang		New Cebu		Antipas		Magpet		Total	
	(n = 14)	(n = 8)	(n = 7)	(n = 2)	(n = 5)	(n = 36)						
Paid tuition for children	6	42.9	4	50.0	2	28.6	1	50.0	2	40.0	15	41.7
Paid outstanding loans	3	21.4	4	50.0	5	71.4	1	50.0	-	-	13	36.1
Bought appliances	2	14.3	2	25.0	-	-	-	-	1	20.0	4	11.1
Deposited in the bank	2	14.3	-	-	-	-	-	-	1	20.0	3	8.3
Deposited as fixed deposit in the coop- erative	1	7.1	1	12.5	1	14.3	-	-	-	-	3	8.3
Others	-	-	-	-	-	-	-	-	1	20.0	1	2.8

Table 35

## Comments on the Cooperatives

## Survey Sites

Comments	Matalam		M'lang		New Cebu		Antipas		Magpet		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
<b>Management</b>												
No comments	3	10.0	8	26.7	4	13.3	9	30.0	10	33.3	34	22.7
There is a good manage- ment	12	40.0	16	53.3	12	40.0	7	23.3	6	20.0	53	35.3
It's okay since I have not experienced any delay in the release of fertilizers	1	3.3	-	-	8	26.7	7	23.3	6	20.0	22	14.7
Lack skills in management	1	3.3	-	-	2	6.7	6	20.0	10	33.3	19	12.7
<b>Technical Assistance</b>												
No Comments	12	40.0	13	43.3	7	23.3	25	83.3	26	86.7	83	55.3
It is good for it helped the members on proper farm management	9	30.0	13	43.3	12	40.0	4	13.3	6	20.0	44	29.3
Limited technical assistance resulting to low production	7	23.3	4	13.3	1	3.3	1	3.3	5	16.7	18	12.0
Additional knowledge in farm management	7	23.3	1	3.3	5	16.7	-	-	-	-	13	8.7

## Survey Sites

Comments	Matalam		M'lang		New Cebu		Antipas		Magpet		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
<b>Loan Assistance</b>												
None	6	20.0	4	13.3	7	23.3	13	43.3	25	83.3	55	36.7
Assisted farmers in reducing for farm inputs	4	13.3	6	20.0	19	63.3	10	33.3	3	10.0	42	28.0
Delayed release of loan	2	6.7	14	46.7	9	30.0	4	13.3	-	-	29	19.3
The Production loans is not enough for one hectare	8	27.6	8	30.0	-	-	7	23.3	5	16.7	29	19.3
<b>Post Harvest Facilities</b>												
No comment	3	10.0	9	30.0	11	36.7	6	20.0	22	73.3	51	34.0
Cooperative has no post harvest facilities (e.g. sheller, drier, thresher, warehouse)	27	90.0	1	3.0	2	2.7	18	60.0	7	23.3	55	36.7
Lack hauler	-	-	15	50.0	12	40.0	12	40.0	2	6.7	41	27.3
Lack space for drying	-	-	6	20.0	7	23.3	4	13.3	4	13.3	21	14.0
<b>Training</b>												
No comments	10	33.3	9	30.0	9	30.0	23	76.7	22	73.3	73	48.7
Provided additional knowledge on proper farm management	20	66.7	14	46.7	13	43.3	4	13.4	4	13.3	56	36.7
The trainings are inadequate	5	16.7	10	33.3	11	36.6	3	10.0	3	10.0	32	21.3

Table 36

## Recommendations for the Cooperatives

Recommendations	Survey Sites											
	Matalam	M'lang	New Cebu	Antipas	Magpet	Total						
<b>Management</b>	(n = 14)	(n = 8)	(n = 7)	(n = 2)	(n = 5)	(n = 36)						
No answer	9	33.3	9	40.9	14	53.8	8	38.1	8	38.1	48	41.4
Continue proper management of the coop	10	37.0	4	18.2	4	15.4	-	-	1	4.8	19	16.4
More training needed to improve their skills	3	11.1	1	4.5	-	-	-	-	1	4.8	5	4.3
They should avoid "palakasan" (unequal treatment)	2	7.4	2	9.1	-	-	1	4.8	-	-	5	4.3
Must have ceiling on credit	-	-	-	-	-	-	8	38.1	2	9.5	10	8.6
Avoid juggling of funds	-	-	3	13.6	1	3.8	-	-	-	-	4	3.4
<b>Technical Assistance</b>	(n = 18)	(n = 17)	(n = 23)	(n = 5)	(n = 4)	(n = 67)						
No answer	2	11.1	3	17.6	10	43.5	2	40.0	1	25.0	18	26.9
Continue the assistance	3	16.7	10	58.8	12	52.2	3	60.0	-	-	28	41.8
More technical assistance	11	61.1	4	23.5	5	21.7	-	-	3	75.0	23	34.3
<b>Loan Assistance</b>	(n = 24)	(n = 26)	(n = 23)	(n = 17)	(n = 5)	(n = 95)						
No answer	2	8.3	1	3.8	5	21.7	5	29.4	-	-	13	13.7
Continue the loan assistance	4	16.7	3	11.5	18	78.3	7	41.2	3	60.0	35	36.8
Increase the amount of loan	8	33.3	4	15.4	-	-	5	29.4	5	100	22	23.2
Farm inputs should be made available	1	4.2	9	34.6	-	-	-	-	-	-	10	10.5

## Survey Sites

Recommendations	Matla	Malam	M'lang	New Cebu	Antipas	Magpet	Total					
Buying price of products should be high enough to pay the loans	1	4.2	-	4	17.4	4	23.5	-	-	9	9.6	
<b>Post Harvest Facilities</b>	(n = 24)	(n = 26)	(n = 23)	(n = 23)	(n = 17)	(n = 5)	(n = 95)					
No answer	3	11.1	-	3	15.8	7	29.2	2	35.0	15	15.8	
Cooperative must have post-harvest facilities such as drier, hauler miller, and warehouse	24	88.9	-	8	42.1	12	50.0	6	75.0	50	50.5	
Increase number of hauler trucks	-	-	14	66.7	8	42.1	9	37.5	37.5	34	34.3	
Complete the post-harvest facilities	4	14.8	9	42.9	1	5.3	-	-	-	14	14.1	
<b>Training</b>	(n = 24)	(n = 26)	(n = 23)	(n = 23)	(n = 17)	(n = 5)	(n = 95)					
No answer	1	5.0	-	1	4.8	-	-	-	-	2	2.6	
More training	14	70.0	13	61.9	20	95.2	5	71.4	3	37.5	55	71.4
Continue training that has been started	2	10.0	9	42.9	2	9.5	2	28.6	4	50.0	19	24.7
<b>Technicians</b>	(n = 18)	(n = 19)	(n = 19)	(n = 24)	(n = 14)	(n = 8)	(n = 83)					
No answer	-	-	1	5.3	1	4.2	2	14.3	-	-	4	4.8
The coop must have technicians	2	11.1	-	-	10	41.7	12	85.7	7	87.5	31	37.3
Increase the number of technicians	6	33.3	5	36.3	8	33.3	1	7.1	2	25.0	22	26.5