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A STUDY OF A PILOT PROJECT IN DIRECTED AGRICULTURAL

PRODUCTION CREDIT IN ECUADOR

November 1 1969

By Jon S. Davis

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INTRODUCTION

The following study is a critical evaluation of the technical aspects of the Directed Credit Program (DCP) of the National Federation of Credit and Savings Cooperatives (FECOAC). It does not represent an overall analysis of the program in that it does not attempt to evaluate the institution-building aspects, except where they may be pertinent to the discussion.

The National Federation defines the Directed Credit Program as a program of promotion of production credit through the development of rural agricultural credit institutions. From this standpoint the DCP has had substantial success in a very short period of time. For example, 26 credit unions have either been created or revitalized, local credit union offices have been opened, managers trained, loans obtained from the Cooperative Bank, savings accumulated and loans made for productive purposes. This development is further amplified in Section I, but it is not analyzed in any detail.

This study considers that aspect of the Directed Credit Program which seeks to provide the small farmer of Ecuador with credit for production purposes on a directed basis. The underlying assumptions of this program are that a substantial input of outside capital and technical assistance into a farm will favorably affect farm productivity, internal capital formation and economic growth. In order to critically analyze these basic assumptions and the organization and administration which have put the program into practice a questionnaire was administered to the managers of the credit unions (Section II) Another questionnaire was administered

to three different groups of farmers (Section III) i.e. farmers who have participated in the Directed Credit Program, farmers who have used regular agricultural credit from the local credit union and farmers who have not been associated with credit unions. A third questionnaire was administered to agricultural extensionists who have given the farmers technical assistance (Section IV).

It is hoped that this study will make it possible for other countries in South America who plan to begin or who have already begun a Directed Credit Program to capitalize on the experience of this pilot project undertaken by USAID/FECOAC/CUNA International. It is also hoped that this study will stimulate discussion among the various agencies in Ecuador which are involved in its development and committed to its ultimate success.

* * * * * * * * *

Many institutions and individuals collaborated in various parts of the data collection phase of this study: Dan Moriarty, CUNA Country Director; Tony Schumacher, CUNA Assistant Country Director; Carlos Flores, Director of the Directed Credit Department of FECOAC; Lewis Townsend, CLUSA Program Director; Clarence Zuvekas, Economic Advisor for USAID/Ecuador; Alfonso Aviles, Land Tenure Advisor to USAID/Ecuador; José Guarderas, General Manager of the Cooperative Bank of Ecuador; Albert Post, Stanford Research Institute; Peace Corps Volunteers Tony Mankus, Bob Brown, Don Hill, Dick Leahy, Bob Surlowitz and Chuck Gassert; Jorge Tulcanaza, Jasper Serrano and Rafael Benalcázar, the interviewing team; the students from the agricultural economics class at Catholic University of Quito; and the various managers of the local credit unions.

SECTION I

THE DIRECTED CREDIT PROGRAM FROM THE VIEWPOINT OF THE NATIONAL FEDERATION OF CREDIT UNIONS

This section attempts to present the stated position of the National Federation of Credit Unions on the development and operation of the Directed Credit Program since its inception. The information contained herein has been substantially derived from various records of the National Federation -- quarterly reports, the reports to the annual assemblies of FECOAC (Federación Nacional de Cooperativas de Ahorro y Crédito del Ecuador), the Annual Plan of Activities for 1969 of the Directed Credit Department, auditor reports, the monthly financial statements from individual credit unions, CUNA/AID Task Order Reports and various studies, such as the Jukes Report and the Stanford Research Institute study. In addition, it is supported by extensive conversations with the CUNA Country Director, the CUNA Assistant-Country Director and the Director of the Directed Credit Department.

I. A Brief History

The lack of available credit sources for the middle and lower income farmers of the society has been one of the most serious drawbacks to the agricultural development of Ecuador. In the early years of this decade credit was extremely scarce in rural areas. Data from the Central Bank's monthly Boletines show that bank credit to agriculture in the period 1960 - 1964 averaged only S/417.1 million, or just 9.3% of the total volume of credit granted by the banking system. When one takes into account that banks normally only loan to upper middle class large farmers, the credit situation for small farmers was indeed critical. Furthermore, the credit unions at this time were not reaching a substantial number of low income farmers. "Although about 50 percent of all credit unions at that time were rural, they

only supplied one third of the membership and one fifth the capital."[1]

In November of 1963 a written agreement was signed between AID and CUNA International of Madison, Wisconsin to bring to Ecuador technicians experienced in the operations of credit unions. Shortly thereafter James W Jukes of the Kansas Credit Union conducted a study to determine the feasibility of beginning a program of short-term credit for small farmers who were outside the reach of agricultural or development banks. The report recommended the beginning of a pilot project in a rural credit union with the intended purpose of extending supervised credit to small farmers for the improvement of agricultural production.

In 1965 the pilot project was begun in the credit union Santa Teresita in the northern province of Carchi in the Andes Mountains. At the time the project was initiated the credit union had been suffering a sustained period of stagnation with only 125 members and $1800 dollars in assets. Within one year after receiving the assistance from the CUNA technician, the Credit Union Federation and the Cooperative Bank of Ecuador, the credit union expanded to 332 members and had assets of $20,000 dollars. As a result of this success in institution-building, plans were formulated to expand the program to another six credit unions by June 30 1966 and to lay the groundwork for another four by September 30, 1966.

From October 1965 to October, 1966 an extensive training program was carried out with the Ecuadorian national who was eventually to take over the

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1. Albert Post, Case Study of Credit Union Program, (preliminary draft of the Stanford Research Institute study of USAID Title IX, 1969), p. 21.

administration of the DCP from his counterpart the CUNA technician This was also a period of integrating the Directed Credit Program (DCP) into the total operations of the National Federation.

Also in 1965 development plans were projected over a four-year period because it was estimated that it would not be until 1969-1970 that the National Federation of Credit Unions would be in a position to operate the program itself It was decided that in order to create the system and to place it into operation, a minimum of 10 credit unions had to be added to the program each year The chart below indicated the four-year projected figures for the DCP [2]

Year	No. of Coops	Members	Savings	Borrowed Capital	Loans
1965-66	7	3,500	1,750,000	1,750,000	3 000,000
1966-67	17	8,500	4,250 000	4 250,000	8 000,000
1967-68	27	13,500	6 750 000	6,750 000	12,000 000
1968-69	37	18 500	9,250 000	9,250 000	18 000 000

Note: The above figures are accumulative from year to year and are expressed in Ecuadorian sucres The official exchange rate is 18 sucres to the dollar The free-market rate is currently about 21 sucres to the dollar

A Directed Credit Department was opened in the National Federation's offices in 1967 in order to coordinate the program and give technical advice on loans made to the individual credit unions At the present time the staff consists of a director four promoters and two agronomists from the Extension Service of the Ministry of Agriculture who work exclusively with eight DCP credit unions giving technical assistance All of the employees work in

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2. "Directed Production Credit Program In Ecuador " CUNA/AID Task Order No 8 Report 1965.

promoting and in developing programs with credit unions that are interested and have members who can benefit. In addition, the Department has organized regional and national seminars for credit union leaders. During 1968, sixteen such courses were held in various parts of Ecuador. Interested credit unions are also assisted by the Directed Credit Department in developing local membership education and training programs. It appears that the most successful of these provide specific days of the week for practical demonstrations and technical courses which are usually given by local agricultural extensionists from the Ministry of Agriculture and by veterinarians.

At the time of the establishment of the Cooperative Bank of Ecuador the Directed Credit Program began a sustained period of development. The Bank itself was started with a capital of 1.5 million sucres (US$71,500), which was augmented by a USAID loan of US$1.2 million in February 1965. Today USAID loans represent about 80% of the assets of the Cooperative Bank. By the end of 1968 the Bank had 20 million sucres (US$950,000) in loans outstanding. Approximately 90% of these loans were made to credit unions of the National Federation and about 30% of these loans were earmarked specially for the Directed Credit Program.[3]

Peace Corps Volunteers have worked with the National Federation since 1964 and have been instrumental in the rapid growth of credit unions and in the establishment of viable institutions. They have laid the basic groundwork so that some credit unions may eventually be able to adopt the directed

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3 Post, p. 21

credit system. Among the various roles they have assumed are training directors, acting as accountants and auditors, promoters, public relations men and trainers of local personnel to take over all of these functions

Probably the most important reason for the success of the Directed Credit Program is the amount of money that has been spent on it As of December 31, 1968, USAID has made grants totalling US$125,000 which cover the administrative expenses of the DCP and the cost of the CUNA technicians. This figure may be somewhat misleading because the CUNA technicians spend a great deal of their time supervising other functions of the National Federation. On the other hand, the figure does not include the amount spent on educational material for the program which is included in the Education Department's budget. In addition, US$650,000 of the USAID loan to the Cooperative Bank has been used exclusively for the DCP.

II. The Directed Credit Program

A. Supervised Credit vs Directed Credit. Supervision of and training in the use of agricultural production credit have always been considered necessary because of the low educational and economic level of the rural farmer and his lack of experience in production marketing and modern methods of farming. The question has always been what type of system would best provide at a minimum cost both the necessary technical education and supervision? The National Federation rejected traditional "supervised" credit since it would have required a large staff to assist the farmer in making a total cost of production analysis of his farming operation and would have also involved intensive supervision. Such an approach would have

been extremely expensive and, therefore, would have reached a limited number of farmers. Instead a much simpler system of "directed" credit was selected. It places primary emphasis on demonstrations and group educational courses for the farmer along with the upgrading of the services of the local credit union to the point where the farmers should be able to supervise themselves with some assistance from the credit union.

B. Past Growth and Future Expansion. In four and one half years the Directed Credit Program has had substantial growth. In the first full year of operation 7 credit unions participated in the DCP. During 1967, an additional 15 credit unions adopted the system and in 1968, 12 more were added. Then in 1968, eight credit unions were dropped from the program due in most cases to the low percentage of directed credit loans outstanding. Thus, as of August, 1969 there was a total of 26 credit unions with an estimated membership of 9,691. This meant that the DCP was functioning in approximately 11% of the 220 credit unions of the National Federation and affected about 25% of its total membership. To visualize this rapid growth of the DCP, the following chart indicates the total increases in membership, savings and loans from June, 1967 to June, 1969:

	June/67	June/68	Increases	Percentages
Membership	5.180	8.165	2.985	60%
Savings	5'033.236	10'891.691	5'858.455	116%
Loans	7'387.256	17'195.932	9'808.676	133%

	June/68	June/69	Increases	Percentages
Membership	8 165	9.691	1.526	19%
Savings	10'891.691	15'317.490	4'425.799	41%
Loans	17'195.932	22'148.610	4'942.678	28%

Note: There has been a 79% increase in membership, 157% increase in savings and 161% increase in loans over the two-year period.

The Directed Credit Department has been working hard to expand the DCP by an additional 10 to 12 credit unions by December of 1969 (see page 20 for a complete list of these credit unions and their estimated increases in membership, savings and loans). The following chart from the Directed Credit Department's Annual Plan of Activities for 1969 shows the projected accumulative increases of the entire DCP (including the above-mentioned additions) for the year ending December 1969:

	Actual Situation In Dec/68	Projected Increases by Dec/69	Estimated Amount of Increase	Percentages
Credit Unions	26	36	10	38%
Membership	9.125	13.000	3.875	42%
Savings	13'300.000	20'000.000	6'700 000	50%
Loans	18'300.000	32'000.000	13'700.000	75%

Tentative plans have already been formulated for the following year 1970. They call for further expansion of the DCP by 10 to 12 more credit unions by end of that year. (See page 20 for this tentative list of credit unions.)

C. Promotion. The work of the Directed Credit Department begins with a feasibility study of a credit union and its community which usually includes an evaluation of the major crops in the area, the size of the agricultural community which would benefit from this type of credit, availability of leadership and management in the local credit union and the credit requirements of the average small farm in the area.

After it has been determined that a credit union has the potential for a DCP, one of the four promoters of the Directed Credit Department prepares

a plan for the approval of the credit union and, if accepted, he begins a 3-to-6-month training program of the credit union's management and directors. Projections are made calculating the amount of capital to be invested in the project, the amount that will have to be borrowed from the Cooperative Bank, the number of new members to be obtained, the amount of capital to be raised by the members, the number of members to be involved in the project and the amount of land to be cultivated under the program. When it exists in the community, contact is also made with the "Extensión Agrícola" (the Extension Service of the Ministry of Agriculture) to insure its cooperation in making specific calculations involving the costs of planting, the specific inputs the farmer is going to need, the amount he should invest in each hectare (2.47 acres) and the approximate amount he should harvest.

Equally important to the promoters' work is increasing the number of members and amount of savings. This intensive effort at mobilizing the resources of a community is undertaken for a number of reasons. First, the development of a sound financial institution is essential before starting any agricultural credit program, such as the DCP. Second, the credit union must be quickly capitalized so that it can obtain the necessary funds from the Cooperative Bank. Otherwise, there would not be enough capital to give a substantial number of credit union members large enough loans to make the project worthwhile. The following example from the credit union Santa Teresita illustrates this problem:

> The capital in the credit union at the commencement of the program amounted to S/38,000 sucres, the membership totalled 175 out of which 52 were inactive.

On the basis of an average loan of S/4,000 sucres per farmer and considering that 50% or 500 farmers in the area would utilize this credit service in a period of one to two years, it appeared evident that a capital of S/2,000,000 sucres would be necessary. The Cooperative Bank of Ecuador's loaning policy permits a credit union to borrow up to 3 times its share capital, and in this case with capital of S/38,000 sucres, the credit union using its borrowing powers to capacity, would not equal S/200,000 sucres or a bare 10% of the capital necessary. In view of the above, the following challenges were placed before the credit union and its members.

1. That they would increase the membership to 500 members.
2. That they would increase the share capital of the credit union to S/250,000 sucres or an average of 500 sucres per member.

An increase in share capital to S/250,000 sucres would enable the credit union to borrow up to S/750,000 sucres from the Cooperative Bank, thus giving it total operating capital of one million sucres to commence, insuring service to a large number of members.[4]

The third reason for promoting the accumulation of local capital and increased membership is that the economics of operating a self-sustaining credit union with full-time management, office equipment, rent, etc. dictate that a minimum of 1% (S/10.000 sucres in the above example) of the membership's share capital be used to pay the operating expenses of the credit union for the first two years, during which time the members will not be able to receive dividend payments. The importance of having a paid manager cannot be overstated because the operating of a credit union which has a DCP is a very

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4. Percy Avram, A Report On The Development Of A Pilot Project In Directed Agricultural Production Credit Through the "Santa Teresita Ltda." Credit Union, (Ecuador, 1965), p. 11-12.

challenging and time-consuming proposition which definitely requires a full-time employee. As one of the CUNA/AID Task Order Reports stated:

> Experience in the program has shown that it is necessary to have a full-time manager in the credit union before the program can be carried out. A resonably good manager brings to a credit union additional members and a sharp increase in the volume of business. This produces the capacity for the credit union to pay for the manager ..[5]

By placing promotion first on the list of priorities, the Directed Credit Department, in line with its emphasis on institution-building, has also been able to revitalize dormant credit unions. The impact of the promotional campaign, the change in emphasis from consumer to production loans and the promise of large loans plus technical assistance appear to have given these credit unions new cause to exist. One can readily see how impressive the results are by studying an example. The credit union Daule, for instance, had been functioning for three years prior to its entrance into the DCP with only 67 members and S/50,000 sucres in savings. Furthermore, its outstanding loans were not being paid back. Within 12 months after the initiation of the DCP the number of members had jumped to 375, savings to S/304,000 sucres and bad debts on loans outstanding amounted to no more than 4% of the total. The credit union had also received a loan of S/200,000 sucres from the Cooperative Bank. This phenomenon is further illustrated by graphs of 3 other credit unions of the DCP on page 19.

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5. Kenneth J. Marin, J. Orrin Shipe, William C. Smith, Leonard B. West "Credit Union Team Report," CUNA/AID Program Task Order No. 16, (Washington, 1965), p. 21-22.

D. The General Structure of the DCP. The Directed Credit Program, as originally outlined, required careful planning by the farmer and the credit union couple with technical agricultural assistance. In reality however, there is a great deal of variation among the participating credit unions depending on the maturity of the credit union, the local agricultural situation, the capabilities of the manager, the availability of technical help and capital and the attitude of the farmer towards adopting new methods of farming. What exist, as a result, is a program which is operating on three distinct levels: 1) production credit plus technical assistance; 2) production credit plus only partial technical assistance; and 3) production credit only. Thus the DCP often consists of only an orientation towards the use of credit for agricultural purposes, rather than the initially envisioned in-depth planning and technical assistance.* This development is not considered critical because it is felt that some farmers know how to increase their yields, but up to now have lacked the credit with which to purchase such products as chemical fertilizer, selected seed and fungicides. As evidence of this, the Directed Credit Department points to the success it has had in the credit union Guaranda, in spite of the fact that there has been almost no farmer-credit union planning, little technical assistance and a minimal amount of education.

The present CUNA Country Director endorses the way the program has developed over the years, as outlined above, and does not feel that the

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*For a complete list of the credit unions which have a good system of directed credit and those which do not, see page 22.

primary emphasis and principal goal should now be a complete, fully operating Directed Credit Program. This, he says, will develop with time. He feels that the objective of the DCP has been and should continue to be "to orient the lending resources of the credit union in rural areas towards loans for agricultural purposes"[6] and away from consumer loans. Judged from this point of view the program has achieved impressive results as evidenced in the following chart of the consumer-production loan profile of 12 credit unions (nine rural and three semirural) of the DCP:[7]

	No. of Loans	Amount	% of Total
Agricultural	2.057	6'591.995	64%
Commercial	727	2'661.642	26%
Consumer	1.441	1'041.495	10%
	4.225	10'295.132	100%

Note: 90% of the above loans are for productive purposes (agricultural and commercial). Some of the commercial loans, however, are for family assistance which may not be true productive loans in the short-term. For further verification of these figures see pages 31 and 38.

The DCP, as a program of orientation towards the use of credit for production purposes, has had, according to the Directed Credit Department, substantial results which are in line with what had been anticipated from it. For example, a large number of farmers have recently changed to modern methods of farming and, for the first time, are using chemical fertilizer, selected

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6. Dan Moriarty, "CUNA/AID Task Order No. 5 Report Covering From August 30, 1963 to October 31, 1967" (Submitted by the Latin American Regional Office of CUNA International, Inc., Panama, 1967).

7. Carlos Flores, "Annual Report of the Work Of the Directed Credit Department," VI Asamblea Anual de FECOAC (Ambato, 1969).

seed, fungicides and insecticides. Although these might seem to be relatively small beginnings, the National Federation points out that the farmers are changing their old patterns of thinking and overcoming customs and traditions which are centuries old. In addition the effect of the program is far greater than the actual number of participants because of a "spillover" of the DCP to those farmers who use only regular agricultural credit. By attempting to emulate the methods used by those in the DCP or by attending courses or demonstrations, some of the farmers who are outside the program have also changed to newer farming techniques. The actual number and extent of this phenomenon is not known, but it is felt to be substantial.

The loose structure of the DCP, the considerable amount of control given the local credit union and the great variations in the level of operations among the participating credit unions have all helped shape the DCP into a program of orientation towards the use of credit for agricultural purposes. These same factors have also caused a blurring of the differences between a directed agricultural credit loan and a regular agricultural credit loan. The National Federation has not been critical of this development, but rather views it as further evidence of the proposition that the effectiveness of the DCP goes far beyond its actual numbers.

E. Technical Assistance. The Directed Credit Department knows that simply lending money to a farmer will not necessarily increase productivity; that only a loan accompanied by an educational system of improved production techniques will enable the farmer to make the best possible use of the funds. The Jukes Report established the basic guidelines which the Department has

been attempting to carry out:

> If the members are not trained in the proper use of credit, then production credit is not feasible.. If credit is extended with accompanying instructions in its proper use, the returns can be manifold. Individually training the farmer in improved farming techniques, budgeting, etc., would be the ideal method. This, however, is not practical or feasible. The only practical method is to obtain the service of the Extension Service and the INIAP to conduct group meetings in improved farming techniques and accepting the applications only from those farmers who are willing to improve their methods...[8]

As of December, 1968, 13 out of the 26 credit unions in the DCP received technical assistance (for a complete list see page 21) from the Extension Service of the Ministry of Agriculture or some other public or private extension service. One of the primary efforts in 1969 has been to extend to the other 13 credit unions some type of system of technical agricultural training.

The responsibility of arranging technical assistance with the various extension services rests almost entirely with the manager of the local credit union. This procedure has not resulted in the securing of enough trained personnel primarily because the Extension Service of the Ministry of Agriculture is understaffed, lacks means of transportation and is too bureacratic. As a result, the Directed Credit Department acquired the services of two agronomists in August, 1969, to work exclusively with those credit unions in the DCP which are located in the provinces of Carchi and Los Ríos. This was accomplished by an agreement with the Ministry of

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8. James W. Jukes, The Jukes Report on Production Credit Needs In Ecuador, (Ecuador, 1963) attachment #1, p. 1-2.

Agriculture, which has loaned the two men and continues to pay their salaries while the National Federation of Credit Unions pays all other expenses.

F. Supervision and Operation of the DCP. The responsibility for supervising and operating the Directed Credit Program lies primarily with the manager of the local credit union. He is the one who has to make good loans and help the farmers with their farming problems. First, the manager must work out a plan of investment with the farmer. This usually involves estimating the amount of credit required, the length of the loan, analysis of how the funds are to be used and a study of the financial situation of the farmer. Second, the manager must make an inspection of the farm in order to verify the data the farmer has given him. Some credit unions have been able to develop the financial resources to hire an "Inspector del Campo" or field inspector who can relieve the manager of this time-consuming work. Third, the manager must give his recommendations to the credit committee on the advisability of granting the loan. Assuming that the credit committee grants the loan, the next task for the manager is to educate the participating member about the services of the credit union, the system of cooperativism and methods of modern agriculture. Finally, he or the "Inspector del Campo" must make periodic visits to the farm to supervise the use of the credit.

Since some managers have not been able to fulfill all the above-mentioned tasks, the National Federation turned to Peace Corps/Ecuador, which had already provided about 100 Volunteers in the area of credit union development over the past five years. In September of 1968, 12 Volunteers

were trained and brought to Ecuador to work as field agents in small farm administration and as supervisors of directed credit loans. They were assigned to 12 credit unions* throughout Ecuador to work directly with the farmers in farm administration. In less than one year, however, not one of the 12 Volunteers remained in the DCP, though two or three of them continue to work with their assigned credit union in some other capacity. The reasons for this apparent failure, coming after a number of years of extremely constructive Peace Corps Volunteer support, seem to lie in the fact that the Volunteers lacked adequate agricultural backgrounds to successfully advise and supervise the farmers in the use of their credit.

G. "Morosidad" or Loan Delinquency. The failure of farmers to repay their loans has not been a problem. Experience has shown that credit union members receiving productive loans have a much better repayment record than those receiving consumer loans. Statistics of the Directed Credit Department indicate that, as of December, 1968, there were only two credit unions (Buena Esperanza and Calceta) that had loan delinquencies of more than 10%. The overall average among the 26 credit unions was approximately 5%. Such low rates are absolutely essential, if the DCP is to succeed because the Cooperative Bank will not make a loan to an open credit union whose loan delinquency exceeds 10% of its outstanding loans.

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*The 12 credit unions to which the Peace Corps Volunteers were assigned were Vinces, Tosagua, Daule, Santa Rosa, Santa Teresita, 23 de Julio, Pedro Moncayo, Yaruqui, Escuelas Radiofónicas, Guaranda and San Miguel de Bolívar.

H. City Members vs. Rural Members. Historically there has been friction between the rural, agricultural members and the city members of certain credit unions. Consequently, there exists the possibility that the Directed Credit Program could aggravate this split in six "semirural" or urban credit unions.* The rationale behind this is that the city members tend to participate more in the daily operations and activities of the credit union, but receive fewer benefits than the rural members. One such benefit is that the Cooperative Bank loans the local credit union large amounts of money which are loaned exclusively to the farmers in the DCP at a considerably higher loan-to-savings ratio (usually 8 times the farmer's savings) than those funds which are made available to city members (usually 3 times the member's savings). Another benefit is that the farmers receive free technical assistance, while the other members do not. It is felt, however, that the DCP has not been a divisive influence for four reasons. First, as a result of the DCP's promotion campaign, the credit union's total savings have substantially increased. This means that there is more money available for use by the city members. Second, the large loans from the Cooperative Bank for farmer use permit the savings of the credit union to be used almost exclusively by the city members. Otherwise a larger portion of these funds would have been loaned to members of the farming community. Third, there is a growing feeling among the city members that they are furthering the development of their community by helping raise the standard of living of the farmers. Fourth, a much stronger and sounder savings and loan institution is being created for the benefit of all members.

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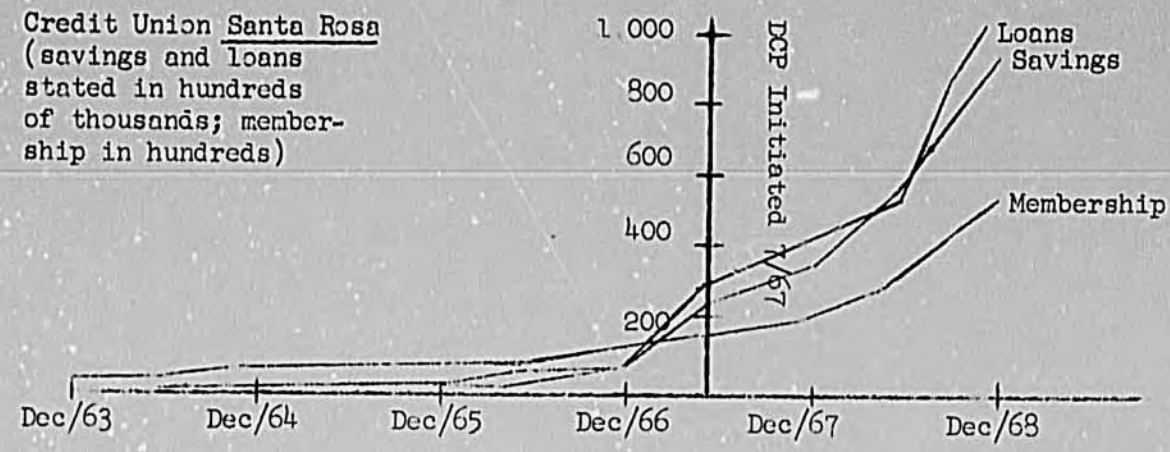
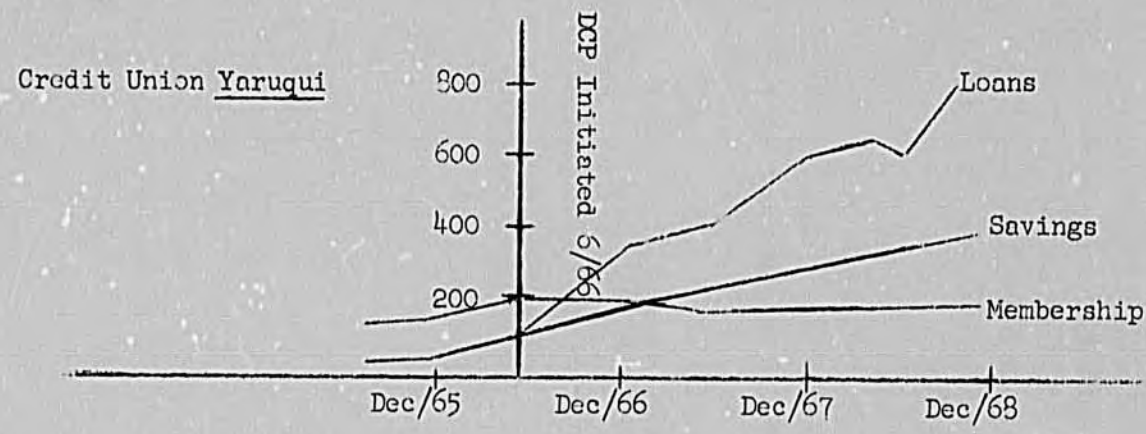
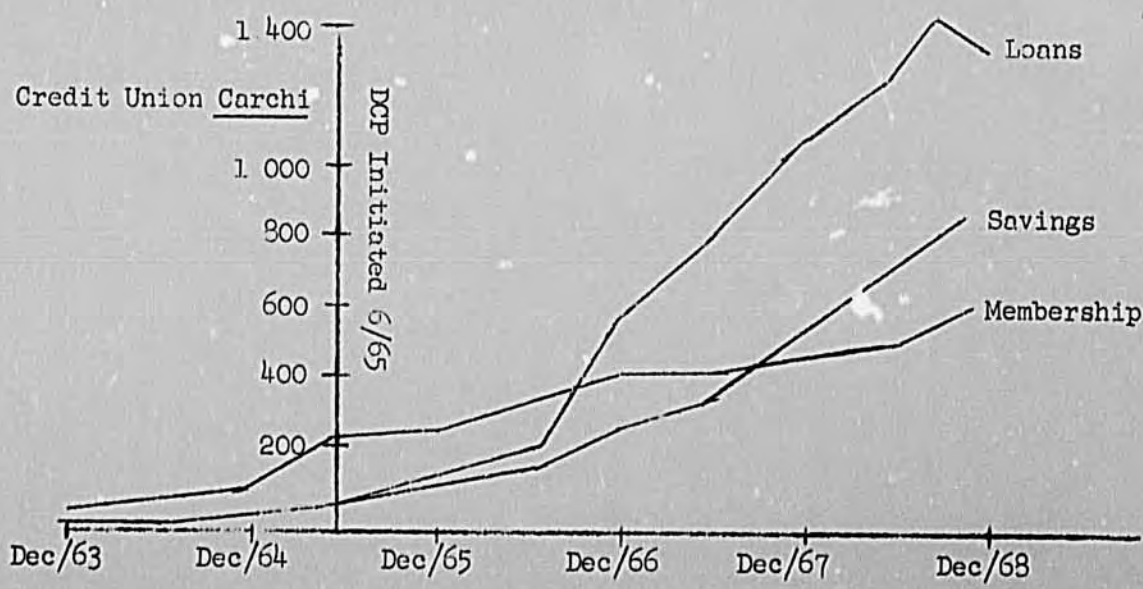
*The six urban oriented credit unions are: 23 de Julio, Guaranda, Vinces, Babahoyo, Santa Rosa and Bahía.

GROWTH OF CREDIT UNIONS IN THE DCP







GROWTH PROJECTIONS FOR 1969

CREDIT UNIONS WHICH WILL RECEIVE ASSISTANCE IN ORDER TO BEGIN DIRECTED CREDIT DURING THE YEAR:[9]

PLACE	CREDIT UNION	MEMBERS	SAVINGS	LOANS	COOPERATIVE BANK
El Angel	21 de Abril	150	150.000	200.000	100.000
La Paz	La Paz	120	100.000	150.000	100.000
Atuntaqui	Atuntaqui	250	500.000	600.000	200.000
Tumbaco	Paulo VI	100	150.000	200.000	100.000
Santa Fe	Santa Fe	200	100.000	1'100.000	500.000
Loja	J. Lorente	300	400.000	500.000	200.000
Cotacocha	3 de Dcbr.	150	150.000	200.000	100.000
Macará	Carchi	100	120.000	150.000	50.000
Puebloviejo	Puebloviejo	200	150.000	250.000	150.000
Pimocha	Pimocha	100	100.000	150.000	100.000
Pasaje	Unión y Progreso	150	150.000	200.000	100.000
		1.820	2'670.000	3'900.000	1'700.000

NEW CREDIT UNIONS THAT THE DEPARTMENT PLANS TO ORGANIZE IN 1970[10]

PLACE	PROVINCE	PROMOTER
Píllaro	Tungurahua	Aulo Navarrete
Guamote	Chimborazo	" "
Alausí	"	" "
Chunchi	"	" "
El Triunfo	Guayas	Ramón Meza
Ventanas	Los Ríos	" "
Baba	"	" "
Montalvo	"	" "
Zaruma	El Oro	Hugo Carrión
Paccha	"	" "
Arenillas	"	" "
Naranjal	Guayas	" "

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9. "Plan Anual De Actividades 1969" Report of the Directed Credit Department (Ecuador, 1969), Table 2.

10. Ibid., Table 3.

CREDIT UNIONS THAT RECEIVE TECHNICAL ASSISTANCE [11]

Location of Extension Service	Credit Union	Place
Tulcán	Santa Teresita	Julio Andrade
	Carchi	Tulcán
San Gabriel	San Gabriel	San Gabriel
Pichincha	Yaruquí	Yaruquí
	Guayllabamba	Guayllabamba
Ambato	John F Kennedy	Huachi
Guaranda	Guaranda	Guaranda
	San Miguel	San Miguel
	San Pedro	Guanujo
	San José	Chimbo
	La Magdalena	La Magdalena
Riobamba	Escuela Radiofónica	Riobamba
Babahoyo	Babahoyo	Babahoyo

CREDIT UNIONS THAT DO NOT RECEIVE TECHNICAL ASSISTANCE

Tulcán	San Pedro	Huaca
Cayambe	23 de Julio	Cayambe
	Pedro Moncayo	Tabacundo
	Buena Esperanza	La Esperanza
Riobamba	Pallatanga	Pallatanga
Portoviejo	Bahia	Bahía
	Tosagua	Tosagua
	Calceta	Calceta
Babahoyo	Vinces	Vinces
	Catarama	Catarama
Guayaquil	Daule	Daule
Machala	Santa Rosa	Santa Rosa
Sucúa	Sucúa	Sucúa

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11 Ibid., Table 5

SITUATION TO JANUARY, 1969 [12]

CREDIT UNIONS WITH GOOD SYSTEMS OF DIRECTED CREDIT

Credit Union	Place	Province
1 Carchi	Tulcán	Carchi
2 Santa Teresita	Julio Andrade	"
3. 23 de Julio	Cayambe	Pichincha
4 Yaruquí	Yaruquí	"
5 J F Kennedy	La Magdalena	Tungurahua
6. Guaranda	Guaranda	Bolívar
7. San Miguel	San Miguel	"
8 Esc. Radiofónicas	Riobamba	Chimborazo
9 Pallatanga	Pallatanga	"
10. Daule	Daule	Guayas
11. IRU	Catarama	Los Ríos
12 Calceta	Calceta	"
13. Santa Rosa	Santá Rosa	El Oro

CREDIT UNIONS THAT DO NOT HAVE GOOD SYSTEMS OF DIRECTED CREDIT OR HAVE SLOW DEVELOPMENT

1. San Gabriel	San Gabriel	Carchi
2. San Pedro de Huaca	Huaca	"
3. Guayllabamba	Guayllabamba	Pichincha
4. La Buena Esperanza	La Esperanza	"
5. Pedro Moncayo	Tabacundo	"
6 San Pedro de Guanujo	Guanujo	Bolívar
7 San José de Chimbo	Chimbo	"
8 La Magdalena	La Magdalena	"
9 Bahía	Bahía	Manabi
10 Tosagua	Tosagua	"
11. Babahoyo	Babahoyo	Los Ríos
12 Vinces	Vinces	"
13. Sucúa	Sucúa	Morona S

CREDIT UNION THAT WAS INCLUDED IN THE STATISTICS BUT DID NOT HAVE DIRECTED CREDIT

1 Ecuador	Machachi	Pichincha

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12. Ibid , Table 6

SECTION II

ANALYSIS OF THE OPERATION AND ADMINISTRATION OF THE DIRECTED CREDIT PROGRAM

This section contains a detailed analysis of the over-all operation and administration of the Directed Credit Program. The information was gathered from essentially two sources: the records of the Cooperative Bank of Ecuador and a survey which was conducted in May, 1969, by five students from Central University in Quito.

The survey of May, 1969, was undertaken because the National Federation lacked any statistical information concerning the actual number of members in each credit union who were or had been participants in the DCP and the actual number of members who were using regular agricultural credit. Such information was necessary so that a determination could be made of what constituted an adequate sampling of these two groups of farmers for a future comparative study (see Section III). Also, because of budgetary and time limitations of the proposed comparative study, it was necessary to know which farmers were not worth interviewing because the credit union they belonged to did not have a functioning DCP or technical assistance or clearly definable groups.

The five students interviewed the managers of 25 out of the 26* credit unions which were listed by the National Federation as being in the Directed Credit Program. Because some of the information which was collected was too inconsistent, eight managers or almost one third of the total were later reinterviewed. In spite of this effort at obtaining precise and reliable

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* The Manager of the credit union Sucua was not interviewed because the credit union is accessible only by plane and because it did not have a functioning DCP.

information, much of the data still is not very accurate. Part of the problem was that the interviewers did not take the necessary time, contrary to their instructions, to count and examine each loan application. Instead they relied on the quick estimates made by the managers of the local credit unions.

Part "II" below contains the information from the records of the Cooperative Bank of Ecuador. In accordance with the banking laws of Ecuador, neither the name nor identity of any member credit union or individual "socio" (member) is revealed. The actual records, from which this summary was made, are on file in the classified documents section of USAID/Ecuador and may be seen only by those persons who have the proper clearance. This should not be viewed as diminishing the validity or authenticity of the information stated herein.

I. Results From the Survey of May, 1969

A. Credit Unions Without A Functioning DCP. Seven credit unions reported that they did not have a Directed Credit Program. They were John F. Kennedy, San José de Chimbo, La Magdalena, Esc. Radiofónica, Tosagua, Sucúa and Daule. While the records of the National Federation show that there are 26 credit unions participating in the DCP, the above information would seem to indicate that there are no more than 19 in all. The reason for this difference probably lies in the manner in which the National Federation defies what constitutes the DCP, which is discussed in further detail in part "III", page 55 of this section.

The credit union Tosagua at one time had a DCP, but it is no longer functioning because of a drought in the area.

Although no interviewers were sent to the credit union Sucúa because of its location in the jungle, the records of the National Federation place it within the DCP since 1967. At the present time, however, it neither has agricultural technical assistance nor a loan from the Cooperative Bank with which to operate its program.

The credit union La Magdalena reported that it did not have a DCP because the credit union was too new, but hoped to establish one later in the year.

The credit union San José de Chimbo indicated that it did everything possible to enter the Directed Credit Program, but could not get the necessary loan from the Cooperative Bank because of a "morosidad" or loan delinquency problem.

Although claiming not to have a DCP, the credit union Daule appears to have a much more extensive program of education and supervision than many of the other credit unions which reported that they had a DCP.

B. Member Participation in the DCP. The survey indicated that there were 900 members in the program this past year who received directed credit loans. This represents 9% of the total membership of the 26 credit unions of the DCP and only 2% of the entire membership of the 220 credit unions which make up the Credit Union Federation. This is about one tenth the number of members reported by the Federation as being in the program this past year. Again, the explaination for this discrepancy probably lies in the manner in which the DCP is defined.

Since the program was initiated in 1965, there have been 1,952 members who had directed credit loans. This figure may be a bit low because when the average directed credit loan for the past year is divided (S/6,345 sucres) into the total amount of the loans granted since 1964 (S/12,759,484 sucres), it would appear that 2,011 individuals have participated in the program over the past five years. Regardless of which figures one uses, they both represent about one fifth of the 9,691 members reported by the National Federation as having participated in the program since it began.

Assuming that the figure of 1,952 participants is correct, 4.1% of the entire 45,000 membership of the Credit Union Federation has participated in the DCP since its inception in 1965.

It would be wrong to assume that all 1,952 participants have been farmers. A directed credit loan can also be granted to artisans and to other people who intend to use the money for production purposes. In the credit union Guayllabamba, for example, six out of 31 directed credit loans were granted for purposes other than agricultural production. In Carchi, out of 30 directed credit loans, 12 were for agricultural production and 18 were for other purposes. Therefore, the total number of farmers in the DCP could be considerably fewer than 1,952.

C. The Average Size of a Directed Credit Loan. The survey indicates that the average size loan in the DCP granted during the past year was 6,345 sucres which is about 3,000 sucres higher than the average DCP loan recorded by the Directed Credit Department. One reason for this difference might be because the Directed Credit Department's figures only include about

one half the credit unions in the program. Another reason might be because the statistics reported from three credit unions are considerably higher than the overall average --- 23 de Julio had an average loan of 17,640 sucres, San Gabriel had an average loan of 13,561 sucres and Yaruquí, 10,292 sucres. On the other hand, the credit union Vinces had an average directed credit loan of only 1,552 sucres, which is significantly lower than the average but which was also included in the calculations.

D. Total Amount of Money Loaned in the DCP During the Past Year. This past year a total of 5,710,316.90 sucres was loaned in the DCP. This represents 26% of the total of 22,148,610.49 sucres which was loaned to all the members for all purposes in the 26 credit unions of the directed credit system. Thus, during this past year in these DCP credit unions, 9% of their total membership participated in the DCP and used 26% of all the funds available (see graph on page 54).

E. Credit Unions Without Sufficient Capital To Sustain the DCP. The credit union Bahía will soon be terminating its DCP because the Cooperative Bank has not approved additional financing due to a serious drought in the area. The Cooperative Bank has also refused to grant new loans to eight other credit unions for various reasons (e.g. high percentage of loan delinquency, poor administration, not following the regulations, etc.). These credit unions (the names have been withheld because the information was supplied by the Cooperative Bank) will also be ending their DCP because of insufficient capital.

F. Amount of Agricultural Technical Assistance. The lists below indicate the breakdown of the amount of agricultural technical assistance given per month in 25 out of the 26 credit unions in the directed credit system and the number and type of extensionists who gave this assistance.

No. of Coops	Amount of Technical Assistance (days/month)
7	None
8	1/30 to 4/30
3	5/30
2	8/30
5	12/30 to 16/30

No.	Type of Extensionist
14	Agronomists (Government Extension Service)
4	Private Company Extensionists
3	Managers of Local Credit Unions
2	Veterinarians
1	Credit Union Field Inspector
1	Peace Corps Volunteer
1	Rice Commission Extensionist
1	Andean Mission Extensionist
1	Cooperative Bank Extensionist
28 Total	

The seven credit unions without any type of agricultural technical assistance are San Pedro de Huaca, La Buena Esperanza, Guayllabamba, Pedro Moncayo, San José de Chimbo, Irú and Santa Rosa. It should be noted that each one of the managers stated that technical assistance was obligatory for all members who received directed credit loans.

The credit unions receiving the most technical assistance are 23 de Julio (15/30), Yaruquí (12/30), Daule (16/30), Carchi (16/30) and San Miguel (16/30). Daule and Yaruquí also have the highest concentration of technical training per number of farmers with 25 farmers receiving 16 days of assistance

per month in Daule and 11 farmers receiving 12 days of assistance per month in Yaruquí.

The number of farmers actually receiving technical assistance appears to be exaggerated in many of the credit unions studied, but this is particularly obvious in the ones that reported receiving no assistance. For example the credit union San Pedro de Huaca stated that all farmers in the DCP, plus 100 other farmers who had regular agricultural loans, were receiving technical assistance, a total of 170 farmers. This seems highly unlikely since there was no one available to give any kind of technical training.

Twenty-one credit unions stated that it was obligatory for all members who receive directed credit loans also to receive technical assistance. Only two credit unions, Tosagua and Esc. Radiofónicas, did not have such a requirement, but it should be noted that neither of them have a functioning DCP at the present time.

Only one credit union, 23 de Julio, reported having an "Inspector del Campo" or field inspector.* This is significant because the job is considered by the National Federation to be an eventual integral part of the DCP, one that the credit unions have been urged to fill as soon as they have the financial resources to do so. The reason is that the field inspector can relieve the manager of the credit union of much of the responsibility of supervising the program. In this way the manager is able to devote more

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*Other credit unions have field inspectors as evidenced by the fact that the three-man interviewing team questioned one in Daule, but the total number is still very small.

of his time to office work while the field inspector visits the individual farms to verify the information supplied by the farmer in his loan application, to evaluate the feasibility of the farmer's plan of investment and later to assist the farmer in the proper use of his credit.

G. No Difference Between Directed Credit Loans and Regular Agricultural Loans within the same Credit Unions. There are seven credit unions --- Carchi, San Gabriel, San Pedro de Huaca, Guaranda, Pallatanga, Bahía and Babahoyo --- which exhibit little or no differences between directed credit loans and regular agricultural loans with regards to the amount of credit that a member can obtain, the amount of technical assistance given and the loan policy which govern the requirements of the borrower and the credit committee.

H. A Summary: The Total Number of Credit Unions with a Fully Operating DCP. If one subtracts from the 26 credit unions reported to be in the Directed Credit Program all those which do not have a functioning DCP, all those without technical assistance and all those without sufficient funds to sustain a program, then only 8 credit unions remain. Of these 8, there are 3 credit unions which do not have any distinguishing features between regular agricultural credit and directed credit. Thus, 5 credit unions --- Santa Teresita, 23 de Julio, San Miguel, Calceta and Vinces --- have what appear to be fully operating programs of directed agricultural production credit.

I. Consumer Loans vs. Production Loans. It would appear from the information gathered in the survey that most loans are approved for production (71%), rather than consumer (21%) purposes. Nine credit unions

reported that production loans were granted in 90% or more of the cases. One should be cautious in using these figures too literally because, as previously mentioned, the data are not very accurate. Upon re-checking a number of credit unions, it was discovered that there was a wide discrepancy between what the manager estimated and what the actual records showed. For example, in Santa Rosa the manager originally reported that there were 35 consumer loans, but when the approved loans were examined it was learned that there were actually 109 such loans.

J. City Members vs. Rural Members; Farmers vs. Nonfarmers. As mentioned above (pp. 19 - 20), there exists the possibility that the DCP could aggravate the historical split between the city and rural members of the same credit union. The reason is that farmers tend to be less active participants in the activities of the credit union, but, because of the DCP, have the potential to receive, in addition to technical assistance, more credit per amount saved than other members. Although not conclusive, the information available appears to confirm this possibility in the six "semirural" or urban oriented credit unions of the directed credit system. For example, in the credit union 23 de Julio approximately 20% of the 1,180 members are farmers; during the past year 149 farmers or 13% of the total membership controlled 55% of all the funds available (this includes both directed credit and regular agricultural credit). Bahía has a total farmer membership of 20%; during the past year 139 farmers, who had either directed credit loans or regular agricultural credit, controlled 44% of all the funds available. Finally, the credit union Santa Rosa, which

estimates that of its 651 members, 30% or 195 individuals are farmers, reported that 16% of its membership had both types of agricultural loans and controlled 37% of the funds.

What is the situation in the twenty rural credit unions? Little is known because the total number of farmers in each credit union was ascertained in only one, Yaruquí. There it was discovered that 42% of the total membership of 294 were farmers. This past year 44 farmers or 15% of the total membership had directed credit loans or regular agricultural loans which amounted to 30% of the total funds available. This is not as serious a problem as in the urban-oriented credit unions, but it is possible then even in the rural areas there may exist a potential conflict between the farmers and nonfarmers of the same credit union.

What is not known in the above analysis is whether the city members or nonfarming members have demanded and been refused credit because the money was being used by the farmers. Therefore, further research should be conducted to determine how serious a problem this really is.

K. Entrance Requirements of the DCP. The list that follows is not a complete one, mainly because the managers did not verify the information they gave by checking the bylaws of the DCP. The list does, however, indicate what the managers of the credit unions consider the most important entrance requirements of the program.

Entrance Requirements	Number Responding
1. Technical assistance/education	13
2. Some period of prior membership	12
3. Base savings	12
4. Plan of investment	8
5. Type of crops	6
6. Moral character of borrower	4
7. No prior bad debts	3
8. Amount of land involved	2
9. Personal guarantee	1

L. Problems with the DCP. When the managers of the local credit unions were asked to state what problems they had with the Directed Credit Program, they responded that they mostly lacked technical assistance, education of members, capital and a marketing system. The entire list is as follows:

Problem with the DCP	Number Responding
1. Lack of technical assistance	12
2. Lack of capital	6
3. Need more education of members	4
4. Lack a marketing system	4
5. Need greater production	2
6. Drought	2
7. Farmers resist change	2
8. Farmers need more supervision	2
9. Need greater attendance at courses	1
10. Lack planning of investment	1
11. Need better administration of DCP	1
12. DCP too complex	1
13. Need money to hire employees	1
14. Lack credit from bank	1
15. Farmers lack patience	1
16. Not enough land	1

M. Suggestions for Improving the DCP. When the managers were asked what improvements should be made in the DCP, their responses corresponded to the problem areas mentioned above, but they also suggested many other solutions.

How to Improve the DCP	Number Responding
1. More technical assistance	13
2. More capital	10
3. More education of members	4
4. Create a marketing system	3
5. More staff training	2
6. Permanent agronomist in credit union	2
7. Lower interest rates	1
8. Longer credit terms	1
9. More credit from Bank	1
10. Laboratory for animals	1
11. Help with promotion campaign	1
12. More sensitivity to farmers	1
13. More control over DCP loans	1
14. Give priority to agricultural loans	1
15. Create a warehouse	1
16. Diversification of crops	1
17. Help from FECOAC's extensionists only when the credit union requests it	1
18. Incentives to encourage attendance at courses	1
19. DCP should wait until credit union is large enough for the program	1

RESULTS FROM THE SURVEY OF MAY 1969

CREDIT UNION	PROVINCE	DATE OF INFORMATION	TOTAL NO. OF MEMBERS	TOTAL AMOUNT OF SAVINGS*	TOTAL LOANS OUTSTANDING*
1. Carchi	Carchi	6/69	520	S/ 885,923.96	S/ 1,345 462 59
2. Santa Teresita	"	5/69	386	667 096.79	1,250 735 44
3. San Gabriel	"	4/69	239	333,698.73	533 416 00
4. San Pedro de Huaca	"	6/69	345	363,534.00	612 938.00
5. 23 de Julio	Pichincha	4/69	1,180	2,730.000.00	3 150 000.00
6. Yaruqui	"	4/69	223	488.602.00	774 705.27
7. Guayllabamba	"	7/69	189	229,125.75	307 843.18
8. La Buena Esperanza	"	4/69	200	224,892.01	345 362.10
9. Pedro Moncayo	"	4/69	332	419,522.20	480 997 00
10. J. F. Kennedy	Tungurahua	5/69	300	421,889.00	521 304.00
11. Guaranda	Bolívar	4/69	568	1,168,753.10	1 940 855 90
12. San Miguel	"	5/69	168	322.502.30	423 279 15
13. San Pedro de Guanujo	"	4/69	114	200 504.90	316 731 50
14. San José de Chimbo	"	7/69	102	153,217.20	159 779 00
15. La Magdalena	"	4/69	131	95 045 00	117 554 00
16. Esc. Radiofónicas	Chimborazo	4/69	550	289.618 00	368 035 92
17. Pallatanga	"	5/69	311	340.457.05	567 462 60
18. Daule	Guayas	6/69	502	549,964.80	993 543 20
19. Irú	Los Ríos	4/69	190	125 039.41	235 159 01
20. Calceta	"	4/69	329	376.100 30	617 562 20
21. Babahoyo	"	4/69	378	835 414 48	1 142 122 29
22. Vinces	"	4/69	304	297,132.34	469 677 65
23. Tosagua	Manabí	4/69	560	880 100 00	1 763 970 00
24. Bahía	"	4/69	754	1,416 070.91	2 165 635 91
25. Santa Rosa	El Oro	5/69	651	1,177,883 75	1 247,492 48
26. Sucua	Morona Santiago	4/69	165	275 402.30	296 886 10
			9,691	S/15,317,490.28	S/22 148 610 49

*Note: The figures in this table and in the following ones relating to the amount of savings and loans are expressed in Ecuadorian sucres. The official exchange rate is 18 sucres to the dollar. The free-market rate is currently about 21 sucres to the dollar.

19. [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20. [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21. [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22. Vinces	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23. Tosagua	11/63	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	552	[illegible]
24. Bahía	2/67	62	40	102	[illegible]	[illegible]	0	0
25. Santa Rosa	4/68	26	12	38	600.000 00	[illegible]	[illegible]	2%
26. Sucua	11/67	no information obtained			75 550 00		2 906	4%
		900	1,052	1,952	S/5 710 316.90		S/6 345	26%

CREDIT UNION	TOTAL NO. OF FARMERS WITH REGULAR AGRI CULTURAL LOANS	TOTAL AMOUNT OF REGULAR AGRI CULTURAL LOANS OUTSTANDING	% OF REG/AGRI. LOANS TO ALL COOP LOANS OUT STANDING	% OF PROD UCTION LOANS PRESENTLY OUTSTANDING	% OF CONSUMER LOANS PRESENT LY OUTSTAND ING
1. Carchi	210	S/ 781,928.13	58%	91%	9%
2. S. Teresita	2	10,640.00	1%	98%	2%
3. San Gabriel	92	247,305.00	46%	93%	7%
4. San Pedro	100	220,000.00	36%	89%	11%
5. 23 de Julio	99	859,827.00	27%	64%	36%
6. Yaruqui	34	121,708.00	16%	78%	22%
7. Guayllabamba	15	18,320.00	6%	78%	22%
8. B. Esperanza	30	120,000.00	35%	79%	21%
9. P. Moncayo	81	50,000.00	10%	97%	3%
10. J. F. Kennedy	48	196,484.00	33%	67%	33%
11. Guaranda	50	100,000.00	5%	66%	34%
12. San Miguel	11	38,487.70	9%	90%	10%
13. San Pedro	31	130,400.00	41%	84%	16%
14. San José	4	12,300.00	8%	63%	37%
15. La Magdalena	23	46 000 00	39%	92%	8%
16 Radiofónicas	333	343,000 00	93%	92%	8%
17. Pallatanga	37	44,710.00	8%	54%	46%
18. Daule	230	808,546 40	81%	97%	3%
19. Irú	70	25,000.00	11%	97%	3%
20. Calceta	28	297,562.00	43%	78%	22%
21. Babahoyo	20	150,000.00	13%	59%	41%
22. Vinces	4	1,728.00	4%	35%	65%
23. Tosagua	400	520 000.00	30%	100%	0%
24 Bahía:	85	350,000.00	16%	65%	35%
25. Santa Rosa	77	287,907.00	23%	67%	33%
26. Sucua	no information obtained				
	2114	S/5 781 853 23	26%	79%	21%

CREDIT UNION	IS TECHNICAL ASSISTANCE REQUIRED? YES	NO	AMOUNT OF TECH/AGRIC. ASSISTANCE PER MONTH; TYPE OF EXTENSIONISTS*	NO OF MEMBERS PRESENTLY IN DCP	NO. IN DCP RECEIVING TECHNICAL ASSISTANCE	NO. OF REGULAR AGRICULTURAL LOANS WITH TECH /ASSISTANCE
1. Carchi	X		Agronomist 1/30 da.; Manager all the time	30	30	210 (in groups)
2. S. Teresita	X		Agronomist 3/30 da.; Manager 2/30 da.	170	170	0
3. San Gabriel	X		Agronomist 4/30 da.; Private Co Extensionist 1/30 da	20	20	92
4. San Pedro	X		None	70	70	100
5. 23 de Julio	X		Field Inspector of Coop. 15/30 da	50	20	0
6. Yaruqui	X		Agronomist, 4/30 da.; Veterinarian, 4/30 da.; Veterinarian, 4/30 da.	11	11	0
7. Guayllabamba	X		None	31	0	0
8. B. Esperanza	X		None	26	8	0
9 P. Moncayo	X		None	8	8	0

CREDIT UNION	IS TECHNICAL ASSISTANCE REQUIRED? YES	NO	AMOUNT OF TECH/AGRIC. ASSISTANCE PER MONTH; TYPE OF EXTENSIONISTS*	NO OF MEMBERS PRESENTLY IN DCP	NO IN DCP RECEIVING TECHNICAL ASSISTANCE	NO OF REGULAR AGRICULTURAL LOANS WITH TECH /ASSISTANCE
10. J. F. Kennedy	X		Andean Mission Extensionist, 2/30 da.; Cooperative Bank Bank Extensionist. 2/30 da.	0	0	40
11. Guaranda	X		Agronomist. 4/30 da.;	100	90	25
12. San Miguel	X		Agronomist 4/30 da.; Private Co Extensionist 1/30 da.; Peace Corps Volunteer, all the time	45	45	0
13 San Pedro	X		Agronomist 4/30 da.; Private Co Extensionist, 1/30 da.	26	26	0
14. San José			None	0	0	0
15. La Magdalena			Agronomist, 1/30 da.	0	0	23
16. Radiofónicas		X	Agronomist, 2/30 da.	0	0	15
17. Pallatanga	X		Private Co. Extensionist, 1/30 da.	71	71	37

CREDIT UNION	IS TECHNICAL ASSISTANCE REQUIRED? YES	NO	AMOUNT OF TECH/AGRIC ASSISTANCE PER MONTH: TYPE OF EXTENSIONISTS*	NO OF MEMBERS PRESENTLY IN DCP	NO IN DCP RECEIVING TECHNICAL ASSISTANCE	NO OF REGULAR AGRICULTURAL LOANS WITH TECH /ASSISTANCE
18. Daule	X		Rice Commission Extensionist 16/30 da	0	0	25
19. Irú	X		None	16	16	0
20. Calceta	X		Agronomist 4/30 da	35	35	0
21. Babahoyo	X		Agronomist, 2/30 da. Agronomist, 2/30 da	45	45	20
22. Vinces	X		Manager 8/30 da.	58	58	0
23. Tosagua		X	Agronomist, 8/30 da.	0	0	12
24. Bahía	X		Agronomist 4/30 da	62	62	60
25. Santa Rosa	X		None	26	14	0

*Note: Almost all of the agronomist referred to above are from the Extension Service of the Ministry of Agriculture; the private company extensionist are almost all from the House of Kruger, a fertilizer distributor; and the managers are local credit union managers.

CREDIT UNION	ENTRANCE REQUIREMENTS OF DCP	DIFFERENCE BETWEEN DCP AND REGULAR AGRICULTURAL LOANS	PROBLEMS WITH DCP	SUGGESTIONS FOR IMPROVING DCP
1. Carchi	Savings base, education courses, period of membership, plan of investment.	DCP --- supervision and loan size, 3 x 1. Regular --- 3 x 1.	Lack capital technical assistance, marketing agric. products.	More capital, technical assistance education; lower interest rate & longer credit terms
2. S. Teresita	Savings base, education courses, period of membership.	DCP --- Technical assistance, 4 x 1 to 20 x 1. Regular --- 3 x 1.	Lack marketing capital and production.	System of marketing technical advice from the government & Wheat Commission
3. San Gabriel	Savings base, training courses, period of membership, no prior bad debts.	DCP --- Technical assistance and up to 20 x 1; Regular --- 2 x 1.	Lack technical assistance education land planning.	Need marketing system. staff training membership training & credit
4. San Pedro	Savings base, training courses plan of investment, period of membership, technical assistance.	DCP --- 5 x 1 up to 8 x 1; Regular --- 3 x 1.	Lack technical assistance marketing supervision of management	Need technical advice marketing system permanent agronomist
5. 23 de Julio	Savings base period of membership, training courses.	DCP --- Technical assistance and 8 x 1 up to S/20.000. sucres; Regular --- 3 x 1.	Farmers do not attend courses and demonstrations	Need a laboratory for sick animals, technical assistance capital & incentives to attend courses and demonstrations

CREDIT UNION	ENTRANCE REQUIREMENTS OF DCP	DIFFERENCE BETWEEN DCP AND REGULAR AGRICULTURAL LOANS	PROBLEMS WITH DCP	SUGGESTIONS FOR IMPROVING DCP
6. Yaruqui	Type of crop	DCP --- Technical assistance and cost of project up to S/15 000; Regular --- 3 x 1 up to S/3 000.	None	Need more capital
7. Guayllabamba	Period of membership	DCP --- Technical assistance & 5 x 1 up to S/10 000; Regular --- 2 x 1.	Lack technical assistance	Need technical assistance
8. B. Esperanza	Period of membership, training courses, base savings, plan of investment.	DCP --- Technical assistance, max. loan of 20 x 1 up to S/20,000; Regular --- 3 x 1.	No permanent technical assistance	Need technical assistance
9. P. Moncayo	Base savings, period of membership training courses, plan of investment	DCP --- Technical assistance, max. loan of S/20,000 for 3 years; Regular --- 3 x 1.	No technical assistance no system of marketing.	Need capital and technical assistance
10. J. F. Kennedy		DCP --- None Regular --- 2 x 1		
11. Guaranda	Base savings, type of crops, technical assistance, moral character of borrower	DCP --- Depends on plan of investment; Regular --- depends on what member needs to amount of savings.	Problems with the administration of DCP; lack capital & technical assistance	Need technical assistance and training of leaders for DCP

CREDIT UNION	ENTRANCE REQUIREMENTS OF DCP	DIFFERENCE BETWEEN DCP AND REGULAR AGRICULTURAL LOANS	PROBLEMS WITH DCP	SUGGESTIONS FOR IMPROVING DCP
12. San Miguel	Base savings, period of membership, training courses.	DCP --- Technical assistance & 8 x 1; Regular --- 3 x 1.	No inspections and demonstrations for all, marketing problems, not enough technical assistance, lack money to pay employees.	Need courses of education, no DCP until coop is large enough to pay salaries.
13. San Pedro	Base savings, type of crop	DCP --- Technical assistance and max. 20 x 1; Regular 3 x 1.	Lack of education; DCP is too complex; members do not have patience with farms that must be filled out.	Need help with promotion and DCP technical assistance, help from FECOAC Extensionists only when coop asks
14. San José		DCP --- None Regular --- 3 x 1.		
15. La Magdalena		DCP --- None Regular --- amount of savings.		No DCP because coop is new; program might be established this year
16 Radiofónicas		DCP --- None Regular --- depends on the plan of investment and the members savings.		

CREDIT UNION	ENTRANCE REQUIREMENTS OF DCP	DIFFERENCE BETWEEN DCP AND REGULAR AGRICULTURAL LOANS	PROBLEMS WITH DCP	SUGGESTIONS FOR IMPROVING DCP
17. Pallatanga	Moral character of borrower, base savings, other resources	DCP --- Technical assistance, amount depends on member's savings and coop's capital; Regular --- amount depends on member's savings, coop's capital.	Farmers resist changes in methods of farming and technical assistance.	Need more capital technical assistance; need to be more sensitive to the farmers way of thinking so that they can accept technical assistance.
18. Daule	Plan of Investment, training courses	DCP --- Technical assistance, amount depends on member's savings; Regular --- 2 x 1.	Lack education, capital and technical assistance	Need program of education a realistic budget control over loan capital.
19. Irú	Type of crop, participation in cooperative.	DCP --- Technical assistance, amount up to 20% of coops capital; Regular --- 2 x 1.	None	Need technical assistance and more capital
20. Calceta	Base savings, no prior bad debts, plan of investment personal guarantee	DCP --- Technical assistance and 4 x 1; Regular --- 2 x 1.	None	Need more capital
21. Babahoyo	Type of crop	DCP --- supervised Regular --- any crop.	Lack capital	Need more capital and a full time agronomist

CREDIT UNION	ENTRANCE REQUIREMENTS OF DCP	DIFFERENCE BETWEEN DCP AND REGULAR AGRICULTURAL LOANS	PROBLEMS WITH DCP	SUGGESTIONS FOR IMPROVING DCP
22. Vinces	Type of crop, base savings, period of membership	DCP --- supervised and 5 x 1; Regular --- 2 x 1.	Lack technical assistance	Need more capital technical assistance and priority to agricultural loans over others
23. Tosagua	Training courses, plan of investment, amount of land to be cultivated.	DCP --- depends on members needs; Regular --- 2 x 1	Drought in area	Need a warehouse for small farmers
24. Bahía	Period of membership, training courses, moral character of borrower, amount of land to be cultivated	DCP --- none (no loan from bank because of drought); Regular --- 2 x 1	Lack capital drought in the area, credit not granted by coop Bank	Need a system of education to prepare farmers to raise better crops
25. Santa Rosa	Plan of investment, no prior bad debts, moral character of borrower, training courses, base savings	DCP --- depends on plan of investment; Regular --- amount of savings	Lack technical assistance; farmers resist changes and new advice	Need technical assistance diversification of crops
26. Sucua	Information was not solicited			

II. Information From The Records Of The Cooperative Bank Of Ecuador.

A. Total Amount of Loans Granted for the Directed Credit Program. From the time that the first Pilot Project was undertaken in the credit union Santa Teresita in 1965, until August 1969, the Cooperative Bank of Ecuador granted, for purposes of the Directed Credit Program, S/14,059,572 (US$669,503) in loans of which S/12,759,848 (US$607,611) have already been utilized. During approximately the same period (January, 1965 to August, 1969), the Bank loaned a total of S/48,300,167 (US$2,300,007) for all purposes to all credit unions of the National Federation. In terms of the DCP, this means that 11% of the 220 credit unions and approximately 5% of the 45,000 members have controlled 26% of all the money loaned out by the Cooperative Bank over the past four and half years (see graph on page 54).

B. A Comparison Between Cooperative Bank Loans Made to the DCP Credit Unions and to Credit Unions Outside the Program. The average size of the loan approved by the Cooperative Bank to the DCP credit unions was S/250,000 (US$11,900); those outside of the program received an average loan of S/180,000 (US$8,570).

A more significant difference appears when one examines the number of loans granted and the total amount of money received by each credit union. The DCP credit unions have received more loans per credit union than those outside of the program and, therefore, have been able to utilize twice as much money. Each DCP credit union has received an

average of S/540,752 (US$25,750) compared to S/277,500 (US$13,214) for the other credit unions.

C. Consumer vs. Production Loans. The Cooperative Bank of Ecuador grants loans to individual credit unions for specific purposes --- production or consumption. In turn, each credit union is only supposed to use the Bank's money for the purposes designated when it approves loans to its individual members. From January 1965 to August 1969, S/2,553,000 (US$121,571) has been loaned for consumer purposes by the Cooperative Bank to the 26 credit unions of the DCP. During the same period, S/12,759,848 (US$607,611) was loaned to the same credit unions for production purposes only. Thus 20% of all loans made by the Cooperative Bank to these DCP credit unions were consumer-oriented and 80% were production-oriented.

D. Lack of Internal Control over the Directed Credit Loans. The lack of supervision at the local level over directed credit loans has resulted in the failure of some farmers to use their loans in accordance with their plan of investment. A few farmers have failed to follow the original plan at all, using the money instead to buy consumer goods or other items; others have failed to invest the entire amount authorized in the proposed project, electing to split the loan between the project and consumer goods; and still others have failed to use the loan in the proper manner, although earnestly trying to meet their commitment to the DCP and the credit union. In all, 10 out of 26 credit unions are reported by the Bank to lack sufficient internal controls and supervision. Some actual

examples of this problem are:

CREDIT UNION X

Member # 1: received S/5,000 loan to purchase 3 small bulls, but a check revealed that he had bought only two which had an approximate value of S/3,500.

Member # 2: received S/5,000 to buy a cow. We found she had acquired one cow valued at S/4,000.

Member # 3: received S/1,800 which was to be used to purchase some chickens. When visiting the farm we found she had 50 hens. The loan will be paid back through other income or by selling the chickens, as the operation is losing money.

CREDIT UNION Y

Member # 1: received S/6,000. The inspection has shown this amount had been invested to experiment with lentil and linseed crops. Thus, the investment is almost completely lost due to inadequacy of the area for these types of crops. He will not be able to pay the loan back.

Member # 2: received a loan to be invested in the purchase of a bull and a cow. The loan was not used for this purpose. Instead, he brought two oxen for agricultural work.

Member # 3: received a loan for S/6,000 which was used to purchase 2 milking cows. He bought the cows, but the farmer said the animals have a value of S/5,000.

Member # 4: received S/9,000 to buy cows. He bought 2 which had a value of S/5,000.

E. Control over DCP Loans by the National Federation. According to the records of the Cooperative Bank, the National Federation does not exercise any control over directed credit loans in any of the 26 credit unions of the DCP. This means that there is no system of supervision or spot-checking done by any Federation official or extensionist or promoter in the field.

F. Credit Policy for the DCP and for Regular Agricultural Loans. The credit policies contain guidelines for the credit committee and loan applicants to follow before approval is given for regular agricultural loans and directed credit loans. The latter type of credit regulations, for example, usually require three to six months membership in the credit union and/or a base savings of 500 sucres before approval will be given for a loan (see page 34 for a complete list).

Nineteen credit unions have credit policies governing regular agricultural loans, six are lacking them and no information was available on one credit union.

Eighteen credit unions have credit policies governing the approval of directed credit loans, while five are lacking such statements. This information was not available on three other credit unions.

G. "Morosidad" or Loan Delinquency. Fifteen credit unions are within the Cooperative Bank's 10% limitation on loan delinquency to total loans outstanding and are, therefore, considered by the Bank to qualify for additional credit, if all other regulations are met. Four credit unions have loan delinquencies outstanding of between 10.7% to 29% and are disqualified from further credit until such time as they are below the permissible 10% level. There were no statistics on the other seven credit unions.*

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*This information was current as of April-July of 1969. The Cooperative Bank considers any loan late if the borrower is two months or more behind in repaying his loan.

[illegible] Cooperative Bank. Nine credit unions [illegible] their DCP because the Cooperative [illegible] Credit. There are also two neophytes in [illegible] Credit Department have recently [illegible] campaigns) who have been [illegible] which to begin their programs. [illegible] approve the loans vary: [illegible] the Bank's regulations, failure [illegible] of the DCP poor adminis- [illegible] of investment, etc. The [illegible] was $2 696,700

[illegible] of the Local Credit [illegible] strong and weak points in the [illegible] DCP credit unions. This is not [illegible] impressions of the Cooperative [illegible]

[illegible]		No.
[illegible]	[illegible]	7
[illegible]	[illegible]	2
[illegible]	[illegible] influenced by members	2
	[illegible] understanding, flexibility	2
	[illegible] full-time manager	1

II. Committees

Strong Points	No.	Weak Points	No.
Operating normally	11	Lack knowledge of function	6
Responsible	6	Ineffective, inoperative	2
		Responsibilities not defined	1
		Do not meet regularly	1

III. The DCP

Have field inspector or manager supervision	6	Need field inspector	3
Have agronomists	4	Need technical assistance	3
Control over loans	3	Incomplete implementation	1
		False planning statement	1

IV Relations with Bank

Good past experience	3	Noncompliance with regulations	3
Met obligations	2	Need money collector/arrearage	3
Credit properly used	2	Need reform of credit policy	2
Planning well done	1	Audit recommended	2
		Past experience with Bank poor	1

The following is a similar summary of the situation in 10 other credit unions which are presently being prepared by the promoters of the Directed Credit Department to enter the DCP either late this year or early next year.

I. Manager

Strong Points	No.	Weak Points	No.
Qualified	2	Not qualified	2
		Belligerent	1

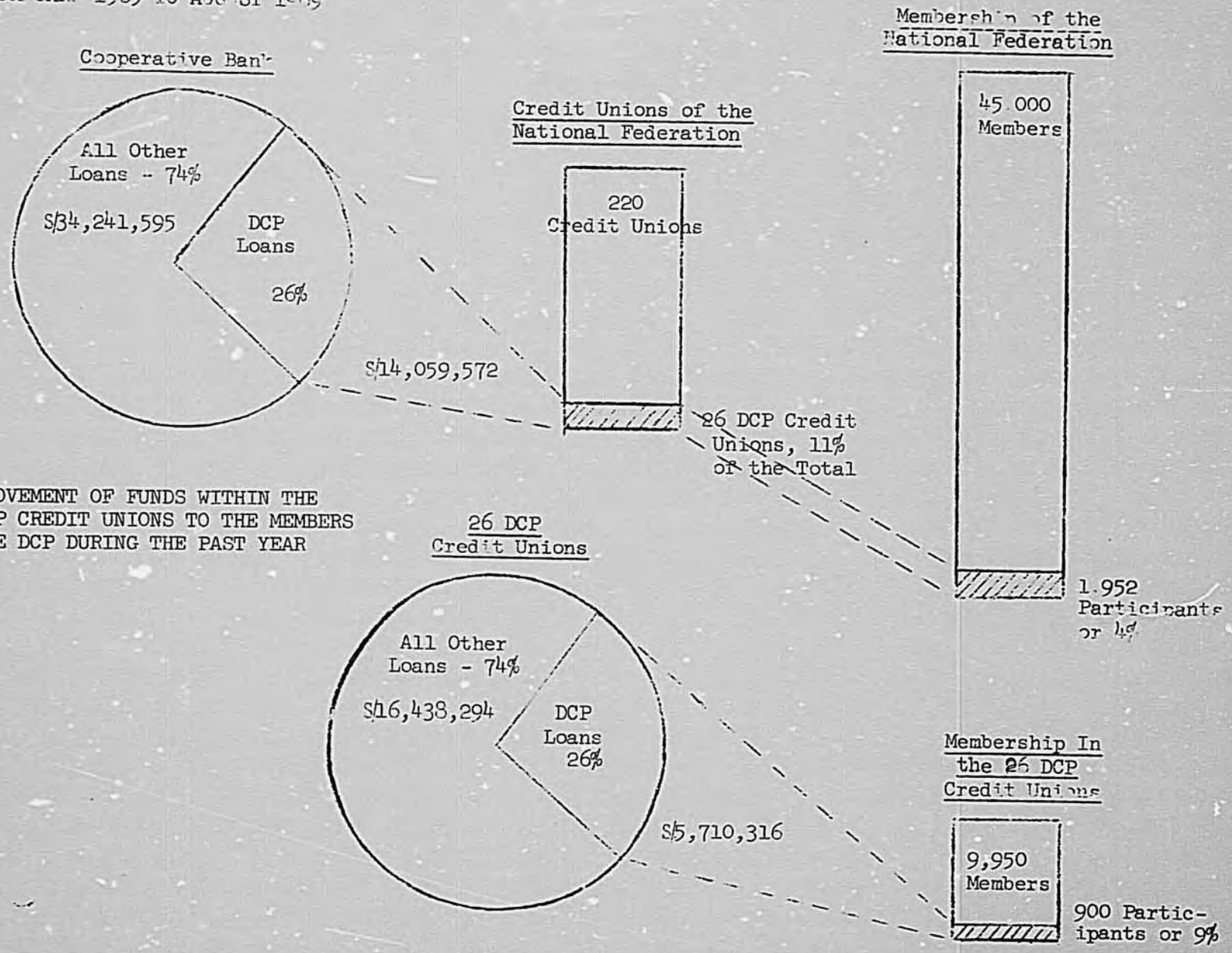
II. Committees

Operating normally	3	Irresponsible	1
		Inoperative	3

III. Relations with Bank

Strong Points	No.	Weak Points	No.
Met obligations	3	Arrearage	4
Reformed credit policy	1	Past experience poor	2
		Lack accounting	1
		No accounting records kept	1
		Poor credit policy	1
		Purpose for which loan was made was disregarded	1

THE MOVEMENT OF FUNDS FROM THE COOPERATIVE BANK TO THE DCP CREDIT UNIONS TO MEMBERS IN THE DCP FROM JANUARY 1965 TO AUGUST 1969



THE MOVEMENT OF FUNDS WITHIN THE 26 DCP CREDIT UNIONS TO THE MEMBERS IN THE DCP DURING THE PAST YEAR

III Conclusions

Due to the complexities and scope of the Directed Credit Program, one should be cautioned to read the following conclusions as an entire unit, conscious of the fact that what is expressed in one section relates to another one which either preceded or follows it. For example, part "A" below discusses the objectives of the DCP, but the rationale behind the use of these objectives is discussed in parts "B" and "C" in relation to other topics.

A. Objectives and Strategy of the Directed Credit Program. The manner in which the National Federation defines the objective of the Directed Credit Program helps explain the differences which exist between the statistical data from the Survey of May, 1969, from the Cooperative Bank of Ecuador, and the records of the National Federation; the confusion which exists between local credit unions and the Directed Credit Department; and the gathering of certain types of information to the exclusion of most others. What then is this objective? It is to provide primarily the farmers, but also the artisans and businessmen with production credit by creating rural agricultural credit institutions through promotion --- promotion of the increase of total savings and total membership, promotion of the use of credit for production purposes over consumer purposes, promotion of education of members in cooperativism, promotion of the need for paid employees, etc.

In order to accomplish its objective, the Directed Credit Department concentrates its efforts on a 3-to-6-month training period and promotional

campaign in each credit union. During this time, one of the four promoters of the Department attempts to mobilize the management, the directors, the members and the community at large into an effective institution. After this initial 3-6 month period, the credit union is considered to be the responsibility of the Federation's general extensionist and the promoter makes only occasional return visits to the credit union to evaluate the program and to assist them with any problems which might have arisen since the program of promotion was introduced. Therefore, the credit union, for the most part, is left on its own to develop its DCP at its own rate and in its own way.

In order to account for the time and expense of having 4 men in the field in 10 or 12 credit unions for a period of 3-6-months, the National Federation classifies a credit union as being in the Directed Credit Program from the moment the promoter arrives to begin the intensive promotion campaign and training. The result is that the records of the National Federation list 26 credit unions as being in the DCP, although 7 of them claim that they do not have a program. Since the work of the promoters involves the entire credit union, the statistics of the Directed Credit Department reflect this fact --- 9,691 members or the total membership of all 26 credit unions are recorded as being in the program, although only 900 members participated in it this past year.

Although the National Federation has very valid reasons for using the approach it does, and although it may have few alternatives given the problems

it faces,* this writer does not agree with its present objectives. To begin with, it is well recognized that the development of a sound institution is a prerequisite to the starting of any new program within a credit union, but it is simply a prerequisite, and should not constitute the program itself. The National Federation, by concentrating on institution-building, has created a program of promotion and not a program of directed agricultural production credit. In order to have a Directed Credit Program two conditions must be met: the input of outside capital and outside agricultural technical assistance into a farm. If the local credit union fails to qualify for a loan from the Cooperative Bank and/or fails to secure technical assistance, then there is no program because there is no way of stimulating agricultural production in a directed manner.

B. Local Autonomy vs. National Control. There is no national structure to or national control of the Directed Credit Program. Even on the local level, structure and control are almost inexistent in most credit unions. One explanation for this development can be traced to the National Federation's policy of concentrating on institution-building through promotion. By opting for promotion over the operational aspects of the DCP, the Federation is left without enough men to implement a system of national controls and standards. Another explanation for this development can be found in the problems inherent in any developing country --- the great disparities in transportation and communication facilities and human and natural resources --- which make a nationally structured and controlled program neither

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*Discussed in detail in the sections which follow.

desirable nor feasible.

From the National Federation's point of view, it has tried to overcome the lack of manpower and the problems of a developing country by creating a system of local autonomy which gives the local management and membership control over its own program, except for the initial training and promotion campaign and the occasional visits by the general extensionist and promoter. The idea behind the training of management, the education of members and the promotion of cooperativism, during the initial 3-to-6-month period, is to prepare the local credit union so that it will be able to supervise and operate its own program. This approach recognizes that a successful program must be based on the motivation of the local membership to learn to manage and use the DCP properly.

By the very nature of this arrangement, the National Federation feels that the DCP must be a loosely knit operation; each individual program must be left to grow and develop at its own rate, according to the local leadership's abilities and motivation. Also implicit in this arrangement is the fact that the DCP is not readily susceptible to clear and concise analysis.

The statistics, however, show that the system is not working as planned. For example, the lack of internal control over the directed credit loans (see page 48) indicates a number of possible problems at the local level: 1) the lack of time on the part of the manager to make the necessary farm inspections; 2) the lack of training, education or understanding on the part of the manager and/or the borrower as to how improper application of the directed credit funds undermines the entire system of repayment of loans,

which, in turn, limits the amount of money in circulation which limits the turnover of these funds to other credit union members; 3) the lack of a field inspector who could relieve the manager of some of the responsibilities of supervising the DCP; and 4) undue pressure or influence applied by some members to force the manager to submit a false planning statement to the Cooperative Bank in order to obtain a loan for a purpose which would not have been approved. A number of other problems are also indicated by the fact that some credit unions show no differences between a regular agricultural loan and a directed credit loan (see page 31) e. g. 1) a lack of structure in the DCP at the local level; 2) the manpow : that is available to help with technical assistance or education or supervision is being allocated among both types of loans with the possible consequence that the farmers in the DCP are not receiving enough attention to assure maximum utilization of their funds; 3) no technical assistance or supervision are available, which means that the basic difference between these two types of loans is that the farmers in the DCP receive larger loans than the other farmers; 4) normally, attending courses, demonstrations and submitting plans of investment are all prerequisites to obtaining a DCP loan, but some farmers are possibly being admitted into the DCP who either are not willing to fulfill all the entrance requirements or are not being obligated to do so.

The evidence clearly indicates that what exists in most parts of Ecuador today does not qualify as a system of directed credit. Within the credit unions themselves there is a lack of understanding of what

constitutes a Directed Credit Program and what the responsibilities are that go along with the acceptance of this type of credit. Therefore, a balance must be found between the need for local autonomy and the necessity of national control and supervision. Continuous assistance and advice are needed on a far greater scale than that now available. If the goal of a viable program is to be reached, a more concentrated effort on the part of the National Federation is required.

C. Quantitative vs. Qualitative Analysis. The preceeding discussion provides ample justification for the National Federation to evaluate the success of its efforts in terms of quantitative statistical data, rather than qualitative. There are in addition, two other motivational factors which should also be mentioned. The first is that the various agencies, whether they by USAID/Ecuador, CUNA International or the Credit Union Federation itself, demand periodic assessments of the success of both the overall credit union movement and the Directed Credit Program. The second factor is that measured progress in the use of credit and technical assistance in the individual farms is not feasible on a short-term basis. Therefore, the Federation, faced with its own requirements and the demands of the other agencies for short-term results, has turned to quantitative statistics, such as total membership, total savings, etc., which provide ready benchmarks and an easy method of arriving at an overall evaluation of its operations.

It would be inaccurate to assume that the National Federation does not make formal, qualitative analyses, also. Evaluations are continually being conducted by the Federation officers, extensionists and auditors, but these are normally for internal office use. To the extent that the various personnel obtain information about the state of the local administration, loan delinquency situation,* accounting system, supervision of the DCP, technical assistance, education courses, plans of investments of the farmers, etc., the DCP is further analyzed.

There is, however, something deceptive about the present method of evaluating the development of the program. It is only natural that the Federation should present statistics which are analytical, favorable and reflective of its greatest effort (i.e. institution-building). However, one is usually left with a false impression of the actual state of the DCP itself, when general statistics about the growth of the institution are presented, as representing progress in the DCP, to the exclusion of most other information. To be more specific, the Directed Credit Department

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*The records maintained by the Directed Credit Department on loan delinquency in each credit union are neither complete nor current. The most recent data available come from a comparative study of 1967 and 1968 and lack information from 8 out of 26 credit unions, meaning that no information on loan delinquency has been collected in these 8 credit unions for at least two years. The monthly credit union statements are supposed to contain this information, but rarely do because the managers do not usually take the time to collect it. Therefore, the only reliable data on delinquency is through an audit. There is evidence that the number of credit unions with this problem is greater than is currently believed, especially in those outside the DCP. Until better methods are developed for obtaining this information, however, the real situation will not be known.

does not maintain any records concerning the number of credit union members using directed credit, a breakdown of the type of borrowers, the purposes for which the loans are granted, the amount, type and source of technical assistance, etc., --- all of which could be as easily obtainable as the other information which is presently collected.

There is, in addition, considerable doubt about the validity of the National Federation's use of its own quantitative statistics to imply or confirm a causal relationship between the efforts of the Directed Credit Department and its success in institution-building. For example, the National Federation claims that the DCP credit unions have grown faster than other credit unions once the DCP was initiated (see graphs on page 19) because of the impact of the promotion campaigns, education courses, extension work, etc. It is more probable, however, that the major cause for faster growth (from 2 to 3 times the normal rate) and the major cause for the revitalization of what were dormant institutions, is tied up with the Cooperative Bank of Ecuador's input of twice as much money into these few selected DCP credit unions as compared to the amount of money put into the credit unions outside the program --- each DCP credit union has received an average of S/540,752 sucres and the other credit unions S/277,000 sucres. The impetus for expansion has been more funds available to more members, some of whom receive credit at eight times savings, and the ability of the credit unions to manage increased amounts of capital.

Another example of the Federation's use of statistics to verify a causal relationship which may not in reality exist concerns the apparent

changes in the membership's orientation to the use of credit. The striking similarity between the figures of the Cooperative Bank (80% of all loans it approves to the 26 DCP credit unions were for production purposes and 20% for consumer purposes) and the results from the Survey of May, 1969 (79% of all loans granted within the 26 credit unions to individual members were production loans and 21% were consumer loans) raises the question as to what was the causal factor --- the DCP or the policy of the Cooperative Bank. The National Federation attributes this development to the education courses, availability of technical assistance and capital, promotion campaigns --- all facets of the Directed Credit Program --- and comes to the conclusion that the program has accomplished one of its primary objectives --- the orientation of the lending resources of a credit union towards loans for production purposes. There is another possible explanation. Given the Cooperative Bank's policy of restricting the amount of production and consumer loans it grants, the entire loan portfolio of the local credit union may be strongly influenced and even circumscribed thereby. One mitigating factor against this analysis is that the local credit unions have their own funds (members' savings) which are loaned to members without any restrictions. Generally, however, the funds are not divided into separate piles of "our money" and "Cooperative Bank's money," but rather are treated by the manager as one fund. Another indication that the Bank's restrictions are influencing the use of local credit is that a number of credit unions have requested more consumer loans from the Cooperative Bank in order to meet the demands of their members. The Bank has usually demurred.

leaving the credit union with the choice of either accepting a production loan or going without any credit.

D. Proposed Expansion of the Directed Credit Program and the Credit Union Federation. Probably the best illustration of both the Federation's dominant goal of institution-building and its quantitative benchmarks used in evaluating progress within the DCP is the chart of projected growth found in the office of the Directed Credit Department.

Projections of the DCP

Period	No. of Credit Unions	Membership	Savings	Loans
Dec. 1967	15	5,426	6,687,000	10,065,000
Dec. 1968	26	9,125	13,300,000	18,300,000
Dec. 1969	36	13,000	20,000,000	32,000,000
Dec. 1970	50	21,000	30,000,000	---

The decision to increase the size of the DCP by approximately 10 credit unions per year was made soon after the initial success of the Pilot Project in the credit union Santa Teresita.[13] There is no evidence that this rate of expansion has ever been seriously questioned by any official since that time. In the immediately following section doubt is raised as to the advisability of this rate of increase in terms of the existing manpower to service the DCP.

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13. "Directed Production Credit Program in Ecuador," CUNA/AID Task Order No. 8 Report, 1965.

Since the rural credit unions with the greatest potential have already been introduced to the DCP, the Directed Credit Department has had to seek new recruits from among the lesser developed credit institutions. The result is that a number of credit unions have recently been added to the program which should never have been selected in the first place because of unsound organizations or inactive committees with which to support the [illegible] idea of strengthening the institution during the initial 3-month [illegible] and promotion campaign is less valid in these credit unions because they require considerably more attention to place them in a position [illegible] their own programs.

[illegible] the DCP is also true of the entire National Credit [illegible] aspect is the emphasis on quantifiable goals. [illegible] plan is as follows:

[illegible] Union Federation

	1971	1972	1973
[illegible]	300	330	360
[illegible]	62,800	79,800	89,800
[illegible]	144	168	182
[illegible]	35.1%	41%	25.7%
[illegible]	476	1,858	---

The primary service of any credit union is the granting of loans which necessarily involves other functions --- proper management, accounting, operating committees, etc. If the National Federation fails to render adequate backstopping to the individual credit unions so that they can function properly, then it is failing in its responsibility to the entire membership, who pay a fee to the national organization for this service. Under the present plan of expansion the entire credit union movement may be threatened by insufficient servicing of member credit unions, due to the lack of manpower.

The stress on quantifiable goals may be the product of the influence of CUNA International, which uses the same kind of statistical indicators to assess the Latin American credit union movement --- 15,000 credit unions, 6 million members and US$885 million in savings in 16 countries by the year 1975.[14] If it is true that CUNA International is responsible for demanding this type of assessment from the credit union movements in the various countries where it has technicians, then it is equally true that its contractor, AID/Washington, must accept ultimate responsibility because, as the hiring agency, it has either approved of or insisted upon this approach. Emphasizing quantitative goals and analysis may be a very necessary ingredient in the beginning years of any credit union movement, but the danger is that in later years the national organization may be

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14. CUNA International, "Public Relations Department Briefs," May 9, 1969.

distracted from the development of quality institutions and programs.*

E. Current Allocation of Manpower.

1) Directed Credit Department Promoters. The work of the four Directed Credit Department promoters is divided between expanding the DCP by approximately 10 to 12 credit unions per year and assisting the 26 credit unions which are already in the program with normal operations, such as accounting, administration, promotion, marketing. To this extent there are some overlapping responsibilities between the work of the promoters and the work of the Federation extensionists who visit the same credit unions.

It takes each promoter a minimum of 3 months in each of 3 new credit unions each year or a total of 9 months to complete his work of expanding the program. This leaves a maximum 3 months to give backstopping to the other 26 credit unions or approximately 2 weeks per credit union. This does not allow for time spent on vacation, attending training courses, meetings with the Department head or traveling between different locations. The problem of servicing these credit unions will become increasingly more difficult in the years to come as the same four men --- there are no plans to hire more --- will be working in 36 credit unions by the end of this year and 50 by the end of 1970. It should be noted, however, that some credit unions develop management expertise through experience and do not require as much attention in succeeding years.

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*This writer does not wish to be understood as being opposed to quantifiable goals, but only against their use to the exclusion of all others. They can be useful tools in helping an organization reach its ultimate objectives, but they should not become the objectives themselves.

The issue of local autonomy vs. national control, which was discussed earlier, must be raised again in the context of these promoters. Some credit unions have requested more control over their programs, arguing that too many decisions and regulations are handed down from Quito, the national headquarters. This contradicts the Federation's view that local autonomy has been granted. The explanation probably lies in the manner in which the promoters approach the local management. Lacking time and trying to follow their own training and instructions, the promoters usually end up telling the local management how to solve their problems, rather than working on them together, as a team. Also involved is the feeling on the part of some credit unions that each local problem is unique, not readily solved by set solutions created in the national offices. Thus there exists a situation where the Federation's personnel are viewed by the local organizations as imposing rules and regulations of some higher authority. Whether this is actually true or not is not the point. The fact that some local credit unions feel this way indicates that the National Federation has a problem in the type of image it is projecting. What may be needed is more understanding and concern on the part of the promoters to the feelings of the local leadership and more time spent working with them and not for the National Federation.

The National Federation is trying hard to train the promoters and thereby improve their efficiency. This would eliminate the necessity of hiring more men at a time when the Federation is reluctant to do so because it is trying to keep its cost of operations down so that it can become a

self-supporting organization. As the promoters' efficiency increases, however, so does the Directed Credit Program. This, then, is the first of five pressure points: the work load and the basic means of communications between the credit unions and the National Federation are in the hands of a few men who are possibly not yet capable of handling the situation.

2) Federation Extensionists. The job of the six extensionists mainly involves assisting the local credit union with administrative problems. In all they have been assigned 22 specific functions, the most important of which are: 1) give technical assistance to the credit unions and those needing information; 2) give direction to directors, managers and local leaders to assure good administration; 3) represent the policy of the Federation; 4) represent the Federation in their respective zones for official events; 5) assure that the credit unions adhere to the status of the Federation and the Credit Union Law; 6) distribute promotional, educational and office literature and documents; 7) maintain complete statistics on all credit unions in their respective zones; 8) evaluate the progress of each credit union, set objectives and set up a work plan; 9) anticipate problems which should be brought to the attention of the manager; 10) maintain a registry of potential new credit unions and develop new credit unions for affiliation with the Federation.

One aspect of the extensionists'work, that of evaluation, needs further elaboration. The credit union movement is under continual evaluation by National Federation officers and employees and the CUNA country staff.

This evaluation is directed toward the operations of the individual credit unions. The main burden of evaluation, however, falls on the extensionists, who make a full report every six months on the activities of the credit union. They look into the Manager's methods of work, examine the files, study delinquency problems, check on the accounting, see if the credit union is following the regulations, evaluate the various committees, and then discuss the problems with the manager and directors, making written recommendations which are also signed by the manager himself. The completed forms are then sent to the National Federation where the Manager and a member of the CUNA staff review them and on periodic field trips with the extensionists follow up with the credit union involved. The extensionist himself checks up on the implementation of the agreed recommendations in the next six months.

Given the fact that there are only 6 extensionists and 220 credit unions and given the amount of work that must be performed plus the bad roads, the weather conditions, the regional and national meetings and courses, and the time spent on vacation and traveling between sites, the extensionists are only able to visit a different credit union every week during the year. This is not as frequently as the credit unions themselves would like. Furthermore, it is dubious whether this is enough time to help some of the credit unions with the more complex problems, such as accounting. One must also keep in mind that there is an uneven distribution of credit unions among the extensionists with some having as many as 50 to 60 under their supervision. This means that in a few instances no more time is spent

in a credit union than is necessary to collect the information for the evaluation report which must be submitted to the Federation. The problem can only become worse as the Federation expands to 250 credit unions by the end of this year and to 330 by the end of 1972.

At the present time there are no plans to hire more extensionists because the Federation is trying hard to cut costs in an effort to become self-supporting by 1972, the time set for the termination of USAID assistance. In order to find another source of income to help defray some of the cost of the extensionists and other operations, the National Federation has recently undertaken a new program, an insurance cooperative. Although the insurance cooperative will operate as a separate entity with its own Board of Directors and staff, it should be pointed out that some of the Federation's Board members will be sitting on the insurance cooperative's Board of Directors, where they will constitute a majority. The idea is to charge the insurance cooperative for office space it rents in the Federation's building, secretarial time used and for the time spent by the extensionists as insurance promoters. The wisdom of such a move is questionable, even though it serves as one means of financing the Federation, because it only further dissipates the already limited amount of time the extensionists have to deal with all of their tasks.

This, then, is the second pressure point of the system --- six extensionists with 22 functions in 220 credit unions who will soon be working as insurance promoters with no prospect of more men being hired in the future, as the entire movement continues to grow.

3) Auditors. Four Ecuadorians and two Peace Corps Volunteers constitute the auditing staff of the Federation. It is their responsibility to examine the accounts in all 220 credit unions to assure that they are accurate and that there has been no dishonesty. Although each credit union has been promised one audit a year, the staff has not been able to provide this kind of service. One problem is that an audit can take as long as two months to complete, depending on the size of the credit union and the condition of the books. Another problem is that any increases in the auditors' productivity have been absorbed in the expansion of the credit union movement. One need only examine the record of the audits made in the 17 DCP credit unions in the Sierra* Region to see what the actual situation is:

Credit Union	Date Founded	1st Audit	2nd Audit
Cayambe	7/64	6/66	10/69
San Pedro (Huaca)	4/67	12/68	-----
Santa Teresita	11/64	6/68	-----
San Pedro (Guanujo)	9/63	8/66	-----
San Gabriel	6/63	4/67	12/68
San José	3/65	8/66	-----
Carchi	4/65	6/68	-----
Guayllabamba	4/68	----	-----
Yaruquí	7/66	1/69	-----
Pedro Moncayo	7/64	8/67	-----
Buena Esperanza	7/64	3/67	-----
Pallatanga	2/64	9/66	12/68

*The records from the audits performed in the Coastal Region of Ecuador are kept in the Federation's offices in Guayaquil with no copies filed in the Quito offices. These records were requested from Guayaquil, but they were never sent.

Credit Union	Date Founded	1st Audit	2nd Audit
Guaranda	2/64	7/68	-----
San Miguel	7/64	9/66	1/69
La Magdalena	Audit File Could Not Be Located		
John F. Kennedy	Audit File Could Not Be Located		
Radiofónicas	Audit File Could Not Be Located		

A legitimate question to be asked is whether the goal of one audit per credit union per year is reasonable and necessary. In this writer's opinion it is essential for several reasons: 1) it is the best means of analyzing the overall financial situation of the credit unions; 2) the credit unions are using borrowed capital from the Cooperative Bank of Ecuador, and the Bank has a right to request and examine up-to-date auditors' reports on a periodic basis; 3) it is one of the best ways to control dishonesty; 4) it provides the extensionists with information concerning the state of accounting in the credit unions in their areas; and 5) it is one of the most reliable sources of information on the loan delinquency problem.

The National Federation is well aware of the problems it faces in this area of its operations. To help alleviate some of the pressure the Federation did request that the two Peace Corps Volunteers, who are scheduled to end their two years of service within the year, be replaced by others. At Peace Corps Headquarters in Quito on April 15, 1969, the CUNA Assistant Country Director explained the rationale behind preferring additional Volunteers rather than the hiring of Ecuadorians. The following is from a published summary of that meeting:

> ...the Volunteers would be working with the auditors, that the present state of accounting is very chaotic, that there are a lack of accounting machines and a tremendous backlog of auditing, but that the Federation auditors will eventually be able to handle the job themselves. A lot of the work consists of helping the coop auditors find where they have made mistakes. A solution is not to hire more auditors, but to help the present ones to work more knowingly and efficiently...[15]

Peace Corps denied the request because of the type of role the Volunteer would be playing and because it appeared that the Federation was looking for inexpensive, temporary help rather than facing the cost of hiring permanent employees.

This third pressure point in the system may have been eased somewhat by the adoption of a proposal which was submitted to the last FECOAC General Assembly held in March, 1969, in Ambato. At that meeting it was decided that within the next few years the local credit unions would assume the total expense of the audits conducted in their credit unions. If more men are needed to get the job done, then more would be hired by the Federation. This arrangement has a great deal of merit to it, but because it represents internal financing one should keep in mind that the Federation will not always be able to turn to its credit unions for more money.

4) The Credit Union Manager. The fourth pressure point in the credit union system concerns the local credit union manager. Many times

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15. Bill Dewey, Memo To Peace Corps Volunteers and Staff, "Notes From the Fall 1969 Programming Meeting," June, 1969

he is the only reason for one credit union succeeding and another not because he is the one responsible for the overall operation of the credit union --- from bookkeeping to checking on members who are behind in their payments. Some managers, however, are not capable of fulfilling this role because of a lack of education, salary or time. In order to improve their capabilities the National Federation and the Directed Credit Department conduct a number of managerial courses during the year in various parts of the country.

On the one hand, the credit unions in the DCP have an advantage over many of the others in that most of the DCP credit unions have salaried managers. On the other hand they are sometimes handicapped because of the amount of work that is necessary to operate the DCP successfully. The manager must for example, help farmers complete their loan applications and plans of investment, he must visit the farms to verify the information, he then must give his recommendations on the advisability of granting the loan to the credit committee of the credit union and later he must again visit the farms to supervise the use of the credit. He may also have to operate a small store for the selling of farm products which means that he must keep a record of inventory and maintain another set of books in addition to the books of the credit union. Finally, he must assist the other members who are not participants in the DCP.

A number of managers are either not qualified or too inexperienced to handle the Directed Credit Program (see page 51), which probably accounts for the fact that many programs do not exist at all or lack

structure and/or supervision. This raises a question about the advisability of introducing the DCP into a credit union before the manager is prepared for it. Considering that one of the principal goals of a credit union is service to its individual members through a well-run organization, it might be a much better procedure first to prepare the manager throughly or wait until he is ready and able to assume the responsibility for operating the program before it is introduced, instead of training him while the program is already supposed to be in operation. On the other hand, if the size of the program were reduced along with the emphasis on expansion, the training of a manager while the program was operating would be a much more feasible proposition because then there would be enough personnel to give the manager the necessary attention.

5) Agronomists and Other Technical Advisors. Although not important to the actual operation of a credit union, the agronomists and other technical advisors are essential to the Directed Credit Program. The failure of the Federation to provide the 26 credit unions of the DCP with sufficient technical training probably represents the single most serious shortcoming of the program. The statistics show that there are seven credit unions that do not receive any kind of technical assistance and eight others that have advisors only 1 to 4 days per month. Twelve credit union managers considered the lack of technical training to be a serious problem of the program, thirteen managers recommended that the DCP be improved by increasing the amount of technical help, and all eight

extensionists who were interviewed felt that technical assistance could be improved.

The original plans of the Directed Credit Program called for the technical assistance to come from the Extension Service of the Ministry of Agriculture. After almost four years of trying, the plan has failed to materialize into an effective system of cooperation because the Extension Service is understaffed, lacks money, is too bureacratic, does not have sufficient means of transportation and is too involved with the larger farmers.

In an effort to improve the situation the National Federation turned to the use of Peace Corps Volunteers, but this met with even less success as the Volunteers lacked the necessary technical agricultural backgrounds and the Federation exhibited a certain amount of inflexibility in initially refusing to alter the original assignment. Finally, the Federation approached the Ministry of Agriculture with a proposition whereby the Ministry would loan two of its agronomists to the Federation for full-time work in the credit unions of the DCP and the Federation, for its part, would pay for all their expenses in the field. Agreement was reached, and the two men have recently begun to work in 8 credit unions in the provinces of Carchi in the Sierra Region and Los Ríos in the Coastal Region. The work load of 4 credit unions per man may be too much, but this depends on the number of participants in the DCP, the type of advice given and the needs of the local organization. Regardless of whether the men can handle the work or not, this arrangement does represent a very important development

in the Federation's efforts to provide the DCP with sufficient technical training, but it still leaves many of the credit unions of the program without this essential input.

F. The Cost of the DCP in Relationship to the Number of Participants. USAID has made grants to the National Federation totalling approximately US$25,000 per year or US$125,000 since the DCP was initiated in 1964 Most of this money is used to pay for the CUNA technicians and administrative expenses of the DCP.. USAID has also made a long-term loan of US$1.2 million to the Cooperative Bank of Ecuador, of which approximately US$650,000 has been used for the program.

The DCP has a high dollar-to-participant ratio when a comparison is made between the total number of participants and the total amount of money loaned. Only about 1% of the 45,000 credit union members have received a DCP loan each year or about 4% since the program was started. Over the past four years the Cooperative Bank of Ecuador loaned approximately 26% of all its funds or about 13 million sucres to the 26 DCP credit unions for use in the program. During this past year, the 26 DCP credit unions made available 26% of all their lending resources to 900 participants in the DCP or 9% of their total membership of 9,691.

The National Federation insists that the impact of the DCP goes far beyond the actual number of participants because of what it calls a "spillover" effect from the DCP to other members of the credit union.

This is undoubtedly true to a certain extent. The promotion campaign brings in more members and savings, which in turn means that the credit union can obtain a large loan from the Cooperative Bank and thus have more capital to make more loans to more members. Usually a manager is hired by the credit union and trained by the Directed Credit Department. Also, a small store may have been opened to sell farm products, such as chemical fertilizer and selected seed, to any member who wishes to purchase them. To this extent almost all members are affected by the DCP. However, when one examines the actual operation of the program --- the input of capital into a farmer's farm planning, supervision and technical assistance --- it is much [illegible] to know that there has been a "spillover" effect. What [illegible] have [illegible] two types of loans, regular agricultural loans [illegible] credit loans, with the basic difference between them being [illegible] using the latter type receives more money in relation to [illegible] the former [illegible] the former type of loan. Therefore, [illegible] to be similar, not because of a "spillover" effect, but because of the ability to provide the farmers who have directed credit [illegible] technical assistance, supervision, planning and structure.

G. Rural Members vs. Urban Members. The operation of the Directed Credit Program is possibly aggravating the historical split existing between the rural and urban members of predominantly urban credit unions. The three reasons for this are: 1) a high percentage of the credit union's funds is being loaned to a small percentage of the members to the possible

exclusion of the majority of members who live in the city (see page 32); 2) the manager may be spending most of his time operating a small store for the farmers or running the DCP, while neglecting the majority of the members; and 3) the farmers, because of the distances they live from the credit union tend to participate in fewer credit union activities, while most of the committee operations and other functions of the credit union are undertaken by the urban members. The Stanford Research Institute study summarized this problem in relationship to the cost of the program by stating that:

> Aside from the traditionally high cost and relatively large subsidy element in the supervised agricultural credit program, the question is raised as to whether a new class of members may not be created who are less likely to participate actively in cooperative affairs because of their background and distance from the credit union office. These members may tend to think in terms of being recipients at the expense of being contributors. Finally, account should be taken as to whether this program does not divert resources which can be used in other ways to attain Title IX objectives; there should be a study of trade-offs.[16]

H. The Financial Situation of the National Federation.[17] Based on present plans and future projections the National Federation cannot

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16. Post, p. 68

17. (Most of the figures stated in this section were taken from the preliminary draft of the Stanford Research Institute Study of USAID Title IX) Albert Post, pages 31-32.

possibly become a self-supporting organization by 1972, the termination date for USAID assistance. In order to understand fully how serious the financial situation of the Federation actually is, we must first discuss the budget of last year and then turn to a discussion of the proposed plans for remedying the anticipated loss in income.

For 1968 the income of the National Federation from its own sources was S/470,207 (US$22,391) of which S/355,835 (US$16,945) came from the monthly one sucre charge per member in each credit union. The CUNA/AID contract granted the Federation its major support of S/2,075,000 (US$98,810) in 1968. The Publications Department maintains its own accounts and showed a profit of S/14,000 (US$666). Therefore, total income from all sources available in 1968 was S/2,559,207 (US$121,867); total expenditures were S/2,396,578 (US$114,123); and net income was S/162,629 (US$7,743). The CUNA contract funded the salaries of the nineteen key employees and the foreign exchange costs of vehicles, office machinery and training in the U. S. The Federation budget carried the remaining ten employees, office expense and domestic travel and loan interest on the Federation's building.

As stated, the present AID assistance is only assured through 1972; therefore, the Federation management has had to begin to find ways to cover more of its costs from domestic resources. One such source is from the expansion of the credit union movement itself. On the basis of projections of growth in membership of about 800 members per month, which is in line with the historic trend, by the end of 1972 there should be about 78,200 members who would contribute S/938,400 (US$44,686) in dues and

other fees, which still would not cover one half the Federation's budget.

Another source of income, which was mentioned earlier, is the full payment by the credit unions themselves of all auditing costs. The Federation presently pays 75% of the cost of the audits, but by 1972 it is expected that the total cost will be borne by the individual credit unions. This additional contribution plus the increase in fees from the anticipated growth in membership would still leave the Federation by 1973 with a heavy deficit --- perhaps well over 1 million sucres (US$50,000), since one must take into account that the larger number of credit unions and members by then will require expanded services from the Federation.

Another source of income will be the promoting of life insurance through an insurance cooperative, which is due to start operating in the near future. The insurance cooperative is expected to cost the National Federation some money in its first year of operation, but after that it will be providing the Federation with income by paying for the Federation's personnel, equipment and office space which it uses. This however does not seem to offer any sizeable resources to cover the anticipated increases in expenditures.

The National Federations's plans, as outlined above, do not appear to be very realistic. The projections to 1973 are based on the assumption that the National Federation's expenditures will be only 2.5 million sucres (US$120,000) which is just about equal to the expenditures in 1968. Unless the Federation envisions a very sharp reduction in its functions or heavy dues on individual credit unions or members, there will have to be a

substantial increase in expenditures by 1973 --- salaries alone will go up by a good amount to keep in line with local price rises. It also appears that these plans are not the result of any deep study or analysis or discussion by the Federation's ruling body, its Board of Directors. A thorough reading of the minutes from the Board of Directors' meetings from January, 1966, to June, 1969, --- a period of three and one half years --- showed that there was not one meeting which had, as part of its formal agenda, this topic for discussion, nor did it appear that it was discussed in relation to other subjects.

In summary, the National Federation is trying to expand so that it can become self-supporting by 1972, but this very emphasis on expansion, whether by increasing the total number of members or by entering the new field of life insurance or by using the DCP for institution-building, may ultimately leave the entire credit union movement in a much weaker position. The National Federation's leadership has not yet given sufficient thought to methods of solving this problem.

I. Summary. The National Federation defines the DCP as a program to provide primarily the farmers, but also the artisan and businessman with production credit through the promotion of rural agricultural credit institutions. Judged from this standpoint the DCP has had substantial success in a very short period of time. For example, 26 credit unions have either been created or revitalized, local credit union offices have been opened, managers trained, loans obtained from the Cooperative Bank, savings

accumulated and loans made for productive purposes. None of this would have been possible without the efforts of the Directed Credit Department and the personnel of the National Federation.

This study has tried to analyze the DCP from a different perspective i.e. the mechanical and technical aspects of providing the small farmer with credit for production purposes on a directed basis. It has tried to point out some of the day-to-day operational and administrative problems of the program. As a result of this analysis, a fundamental question needs to be asked: what should be the principal objectives of the DCP? Given the Federation's definition of the objectives of the program, a strong argument can be made that the correct approach is to develop as many rural agricultural credit unions as is possible with the resources available. In this case, however, the name of the program should probably be changed to something like "Rural Institutional Development." On the other hand, if the purpose is to provide a truly directed program in the use of production credit for agricultural purposes, then the results of this study indicate that the efforts of the program should be concentrated on fewer credit unions in order to insure that credit and technical assistance are being properly used on the small farm.

IV Recommendations

The Directed Credit Program was primarily created to extend production credit to small farmers who were outside of the existing credit system so that they could improve their agricultural production. The need for this type of credit still exists; the program is still valid Therefore, the following recommendations are offered as a few of the possible ways for improving the DCP and strengthening the National Federation so that needed services and beneficial programs can continue to be provided to the membership of the entire credit union movement.

A Size and Expansion of the DCP. In order to cut costs and to improve the administration of the program, the size of the DCP should be reduced from its present number of 26 credit unions to about 5 depending on the capabilities of the local manager, the amount of supervision and technical assistance available and the ability of the Directed Credit Department to control and structure the program. All six urban-oriented credit unions should be excluded from the program until it can be determined whether or not the DCP is a divisive influence. Furthermore, the program should not be expanded any faster than men are found who are either qualified or trained to fulfill the roles of manager, field inspector and agronomist. Nor should the DCP be introduced into a credit union which does not display a certain minimum level of operational ability, including a sound administration and active committees.

The cost of operating the program would be reduced by the elimination of three of the four promoters, since one man could easily handle the one

or two new credit unions which would be added to the program each year. In addition, the reduction in the number of promoters and in the size of the program would help shift the emphasis from promotion and expansion to one of service and permit the director of the Directed Credit Department plus the one promoter to provide the necessary backstopping in the credit unions of the DCP.

One of the weakest aspects of the DCP, the lack of technical assistance, would also be strengthened by a smaller program. The National Federation could assign to the five DCP credit unions the two agronomists who are on loan from the Ministry of Agriculture. The credit unions selected to participate in the DCP should be relatively close together so that the agronomists would not waste time traveling between communities and could be easily contacted when their advice was needed.

The three promoters who would no longer be working for the Directed Credit Department could be used by the Federation's regular extension service, which is badly in need of more manpower. Another possibility is for the Federation to replace the promoters with full-time agronomists and other agricultural experts who could work directly with the DCP as the demand from participating credit unions warranted.

Like most suggestions, this one has its disadvantages. The cost per participant would still be very high, even though the overall costs would be reduced, because there would be fewer participants than there are now. Nevertheless, the advantage would be that there would be more supervision, more control, more structure and more technical assistance in each of the DCP credit unions.

B. Statistics. Realistic quantitative goals should be established, but they should not become rigid requirements which represent failure on the part of the program itself or the director of the Directed Credit Department, if they are not reached. Also qualitative goals should be created with the emphasis on flexibility within predescribed standards. Within this context the statistics of the National Federation should accurately reflect the actual state of the Directed Credit Program through two types of records. One type should contain the statistical information which has normally been kept concerning the promotional aspects of the DCP, and the other should concern the actual operation of the program of directed agricultural production credit. This would permit the National Federation to justify the time spent preparing a credit union for the program, while not misrepresenting any real progress in the DCP. If a credit union, for example has internal problems which make it impossible to operate a program or the Cooperative Bank refuses to grant a loan or no agronomist is available to give technical advice, then the Directed Credit Department should consider terminating its work within this particular credit union unless further attention would resolve the problem. The statistics should then reflect this factual situation by including the credit union in the records concerning promotional progress, but not in the records concerning actual progress in directed agricultural production credit.

C. Methods of Controlling DCP Loans. One means of exercising control over directed credit loans at the local level is to give the farmer his loan in farm products rather than in money. This could easily be accomplished where the credit union operates a small store because the entire

transaction would amount to little more than a bookkeeping procedure. Similar arrangements could be made with private companies whereby the credit union would pay the farmer's loan directly to the company who would then provide the farmer with the farm products. This approach has the disadvantage of not being very conducive to the farmer's development of a sence of fiscal responsibility.

Another method of controlling the use of DCP loans is the establishment of a line of credit which would provide the farmer with funds for specific purposes at the time of his needs, instead of making a loan available to him in a lump sum. This has the added advantage of providing the credit union with the power to cancel the loan if a natural disaster strikes the area and the farmer is faced with the total loss of his loan. Such an arrangement worked out very successfully in the credit union Daule, where a drought caused tremendous losses, but the farmers were saved from owing the credit union the full amount of their loans because the credit union cancelled all the remaining credit due the farmers.

On the national level, it is recommended that a system of supervising and spot-checking the use of directed credit loans be created and coordinated between the National Federation and the Cooperative Bank of Ecuador. By cooperating in this area, both institutions could eliminate overlapping work and waste time, and thus increase their efficiency while reducing their costs.

D. Financing The Directed Credit Program. Reduction in the overall operating costs of the DCP would naturally follow any decrease in the size

of the program, but additional funds will still be needed if the program is to continue to function. One possible solution would be to approach USAID which might be interested in lending more financial aid because of the importance of providing credit for agricultural development to the small farmers of Ecuador. The problem is that acceptance of USAID's help or, for that matter, further help from CUNA International or the Peace Corps, augments the Federation's dependent status and hinders its attempts to deal effectively with its financial problems. After almost eight continuous years, it may be time to call a halt to such assistance.

The DCP may also be financed through the incomes of the participating credit unions. During 1968 for example, the credit union Santa Teresita had a net income of S/12,528 (US$597) and Carchi had a net income of S/35,345 (US$1,684) which, if the membership of the credit union agreed, could be used to hire an agronomist or field inspector. Regional cooperation, which has been noticeably lacking, could be fostered by combining the incomes of two or more credit unions from the same area for the purpose of financing some part of the DCP. It is not recommended that this approach be introduced into the predominantly urban credit unions because it would deprive the majority of the members of their annual dividends which normally come from year-end profits.

E. Research. The National Federation should commit itself to thoroughly detailed studies and analysis of the economic and social factors involved in its overall operations so as to find better ways to serve more members more efficiently. Such research should be an integral part of all future planning and projections.

Some experimentation should be done within the Directed Credit Program in order to find less costly ways of helping the farmer. The possibility exists, for example, that through a concentrated program of education and technical assistance, which excludes any help from the promotional staff of the Directed Credit Department or large amounts of money from the Cooperative Bank, the farmers can be encouraged to change their methods of farming and increase farm productivity. (See Section V for further discussion of these points.)

F. Financing The National Federation. The Board of Directors should not hesitate any longer to deal forthrightly with the financial problems of the National Federation. Immediate action should be taken on the possibility of raising each member's monthly fee from one to two sucres. This necessarily should involve a study of the possible effects of such a move on the entire credit union movement. Also, the Board of Directors should look into the possibility of charging each credit union a monthly fee based on the amount of capital or year-end profit so that the cost of operating the Federation will be more equally borne by the credit unions with fewer members, but large capital assets.

It would be a very serious mistake to reduce the level of services to member credit unions by reducing the number of general extensionists and other personnel as one of the means of solving the financial problem. First, the present staff is already having a difficult time performing all of its assigned duties and will find its services in even greater demand as the entire credit union movement continues to expand. Secondly, many credit

unions already feel that they are paying the national organization too much for too little, and this will make it very difficult for the Federation to persuade many of them of the need for cutting services, while at the same time increasing fees and dues.

It has been suggested that the general extensionists hold office hours in some centrally located community in their particular areas so as to permit credit unions to come to them with their problems. Those advocating this approach argue that it will enable the extensionists to provide more services to more credit unions, since they will not be wasting time traveling between communities, and that it will eliminate the need for hiring additional personnel. Should this approach be taken however, there is some doubt that credit union managers would actually go to the extensionists' offices, and further doubt that their calls there would antedate the development of serious problems. All the same this approach merits experimentation. It must be borne in mind none the less, that to let office hours replace the periodic visits which the extensionists pay to the credit unions might result in even less assistance from the Federation to its members than that currently being provided.

Whatever decisions are ultimately made should be the result of complete and open discussions by as many credit union members as is feasible. Therefore, regional meetings should be convened as soon as possible to enlist the participation, help and support of the local leadership. Not only would this help eliminate the argument that decisions are "handed down" from Quito, but it would help make the final decision much more palatable to the entire membership of the Federation. At these regional meetings,

in addition to discussing the financial problems of the Federation the entire question of the rate of expansion should be discussed in relation to the number of personnel required to provide backstopping to the member credit unions. The wisdom of using the six general extensionists to promote life insurance should also be discussed.

G. Paternalism. The National Federation has been accused of being too paternalistic towards its members by not permitting them to make important decisions for themselves. This writer does not believe that this is the type of relationship the Federation has tried to develop nor the type of image it wishes to project. The fact that some credit unions feel this way does present the Federation with a serious problem. One possible solution might be to have all the men who are in daily contact with the credit unions --- the promoters, extensionists, auditors, etc., --- attend a number of group sensitivity laboratories which are held in various parts of the country under the sponsorship of USAID/Ecuador. Through such training the Federation's personnel might discover better ways to approach the credit unions through a better understanding of themselves and the type of role they are playing.

[illegible] OF FARMERS: (A)

[illegible] DIRECTED CREDIT

[illegible] REGULAR AGRICUL-

[illegible] CREDIT UNION AND (C)

[illegible] ASSOCIATED WITH CREDIT

In the early 1960s the agricultural development planners at USAID/Ecuador and CUNA International felt that many small farmers in Ecuador were not able to increase their agricultural output because they lacked the necessary capital which would enable them to change their farming operations. This lack of capital kept the farmers in a perpetual cycle of low productivity, which in turn meant that they were not able to accumulate savings and generate internal capital growth It was felt that one means of ending this cycle would be to establish a program which would provide the farmers with low interest loans. A corollary of this development theory was the belief that these farmers could not, of their own accord, use this outside credit in the most productive manner, but would need supervision and free technical assistance in order to achieve the desired results.

This study attempts to examine the success of the above proposition by comparing and studying three groups of farmers:

1) Farmers who have participated in the Directed Credit Program of the National Federation. The DCP involves outside credit (usually eight times the farmer's savings) careful planning and technical assistance.
2) Farmers who have used regular agricultural credit from the local credit union. This group has received outside credit (usually three times the farmer's savings), but little technical assistance and no supervision

3) Those farmers located in credit union areas who are not associated with a credit union. Because of their small farm size, they generally have little access to credit on reasonable terms and receive almost no technical assistance.

I. Methodology

A. Direct Questionnaire Approach vs. Indirect Conversational Approach. Stanford Research Institute, in a three-month study (March-May 1969) of USAID Title IX objectives, used the conversational approach to obtain information from the farmers. The Institute enthusiastically endorsed this method of obtaining information in Ecuador for the following reasons: 1) no notes are taken, no forms are filled out in front of the farmer, and as a result the farmer will tend to be less defensive and less likely to think that the interviewer is a tax collector; 2) the Ecuadorian farmer prefers to talk around an issue before he tells the interviewer what is actually on his mind; 3) a questionnaire tends to get an unreasoned and intuitive reply because the farmer probably has never before thought about the question; 4) in a lengthy conversation the farmer is less likely to fabricate an answer; less likely to tell the interviewer what he thinks the interviewer wants to hear; 5) a questionnaire is very difficult for Ecuadorians to administer to Ecuadorians because of cultural barriers; 6) it is much easier to obtain the farmer's opinions and impressions, as opposed to facts and figures, through a conversation which covers only 4-5 predetermined general areas, which the interviewer can later recall.

In spite of the valid arguments stated above and the honest opposition of a number of Ecuadorians, the questionnaire approach was adopted for this study because: 1) the conversational approach requires professional supervision and training of the interviewers, a clear understanding of goals, and a lack of cultural interference; 2) considering the lack of funds to hire trained personnel and considering the educational background and abilities of the Ecuadorian interviewing team, the questionnaire is much easier to work with; 3) the questionnaire takes less time and, therefore, more farmers could be interviewed with the limited financial resources available; 4) pragmatically the questionnaire has worked successfully in a USAID/Brazil/Ohio State University study of farm productivity in Southern Brazil, a USAID/Peru study of supervised credit and in numerous studies conducted over the years in Ecuador; 5) the amount of information requested was considerable, and it would be difficult in conversation for an interviewer to remember all the questions let alone all the answers.

B. Construction of the Questionnaire. The questionnaire was written after extensive discussions with staff members of the Credit Union Federation and USAID/Ecuador, Peace Corps Volunteers and various Ecuadorians who were experienced in this type of work and/or knowledgeable about the Ecuadorian farmer. The questionnaire was also the result of the examination of the following materials: a questionnaire from Professor Norman Rask of Ohio State University, which was used in a study of farm productivity in Sourthern Brazil; a questionnaire from Professor Ronald Tinnermeier of North Carolina State University at Raleigh, which was used in a study of

the supervised credit program in Peru; a questionnaire published by the Cooperative Bank of Ecuador; a questionnaire used by USAID/Ecuador in analyzing rice production and cooperatives in the Guayas River Basin; a questionnaire designed by the Guayas River Basin Commission, Ecuador; and a questionnaire written by Alfonso Avilés of USAID/Ecuador and used in preparation for his thesis.

The sections covered in the questionnaire were:

1. Location and Identification
2. Land Tenure and Land Use
3. Labor Resources
4. Credit
5. Technical Assistance
6. Crop Production
7. Marketing
8. Farm Improvements
9. Livestock
10. Other Sources of Income
11. Credit Union Participation
12. Level of Living
13. Interview Evaluation

C. Pretesting of the Questionnaire. In order to determine how much time it would take to administer the questionnaire and what problems might be encountered, the questionnaire was pretested eight times in two separate rural communities. The average length of the interview of the farmers in the DCP was 40 minutes, which was well within the prescribed time limit. It turned out that this group was more willing to give of its time than was the group of farmers outside the credit union system because the interviewer was usually introduced by a representative of the credit union, the farmers were eager to talk about changes in their farming operations and they were accustomed to answering questions about their use of credit.

For the farmers who had no connection with any credit institution, the average length of the interview was 30 minutes which was probably the maximum amount of time that could be spent with individuals in this group. These farmers were hesitant about answering questions and accused the interviewer of being either a communist or a tax collector. It was noted that these farmers all began to resist the questioning around the same section in the questionnaire. In an attempt to build more confidence in the earlier stages of the interview, the questionnaire was later rearranged so that questions concerning the more sensitive areas (e.g. the number of animals, crop production, farm improvements, etc.) were placed in the latter part of it. Some questions were eliminated altogether. The interviewing of the farmers in this group took about 10 minutes less time than did that of the farmers within the credit union because various sections of the questionnaire did not apply to the former in as much detail (e.g. use of credit, technical assistance, credit union participation and adoption of new farming techniques).

Through pretesting of the questionnaire other problems became apparent. The managers of the credit unions wanted to sit in on the interview, which would have prejudiced the results. Lack of transportation appeared to be a serious handicap. For example, it took over an hour to get to one farm only to find the farmer was not at home. It was also realized, given the limited sampling to be made, that the farms to be visited in the three different groups all had to be approximately the same size if a valid comparison was to be made.

From the standpoint of time, the amount of information gathered, and the relative accuracy of the farmers' responses, the pretesting demonstrated

that the questionnaire would accomplish its primary objectives.

D. The Training of the Interviewing Team. The three-man interviewing team received an intensive two-day training course before departure for the field. The training consisted of: 1) an introduction by Carlos Flores, Director of the Directed Credit Department, who elaborated on the purposes and operation of the DCP; 2) discussion of the rationale behind each question of the questionnaire and how each question was to be interpreted; 3) a thorough reading of the instructions which also involved a discussion of some of the problems which the team might encounter in the field, possible solutions, how to conduct an interview, specific instructions concerning each question of the questionnaire, etc.; 4) a discussion of how to complete the work sheet which they were to use to keep a record of the date, farms visited, whether the interview was completed or not, comments and their other activities, such as, illness, holidays, travel, etc.; 5) instructions on how to complete the expense account sheet; 6) role-playing actual situations which they might encounter, such as the "gerente's" or manager's insistence upon sitting in on the interview or the farmer's refusal to answer questions because of his fear that the interviewer might be a tax collector; 7) actual use of the questionnaire with a farmer in the field.

E. Work Procedure. The three members of the interviewing team were told that they could use horses, buses, canoes or any other reasonable means of transportation in each of the five areas they visited. This proved to be a serious handicap and one which ultimately affected the results of the entire survey. Lacking access to a car, the interviewers were not

able to visit those farmers who lived a considerable distance from the credit union. These farmers, because of where they live, are less active participants in the activities of the credit union (i.e. attend fewer required courses and/or demonstrations, etc.). Therefore, the survey does not reflect the best sampling of this particular group of farmers that could have been obtained. It is strongly recommended for future studies that better means of transportation be provided within the site.

The sixth area sampled in this survey was Yaruqui. The farmers there were interviewed by 20 students from the Catholic University in Quito supervised by their Professor, Alfonso Avilés, who also works for USAID/ Ecuador. Besides the cost savings, the use of student interviewers permitted a much broader study (30 more interviews) of the agricultural community in Yaruqui than the one originally planned. The questionnaires were not properly completed, however, because the students were not adequately trained, some were inappropriately dressed (one student wore an ascot) and others tended to "talk down" to the farmers. The results from Yaruqui should be weighed in the light of these facts.

None of the interviewers was supervised on a day-to-day basis in order to give him a feeling of independence and responsibility. The interviewers did receive notice, however, of the names of the Peace Corps Volunteers in each of the areas they visited so that the Volunteers could 1) give the three men and the students a contact in the community and in the local credit union; 2) assist them with any unforeseen problems which may have arisen; and 3) provide this writer with additional feedback on the manner in which the work was completed. Because the Volunteers were

friends of the managers of the credit unions, usually well-acquainted with a number of farmers and familiar with the attitudes of the people in the area as a whole, their observations and the reactions they obtained from others were extremely useful in evaluating the performance of the interviewers and the reliability of the data.

No attempt was made to control the type of supervisory roles or working relationships which the Volunteers and the interviewers established among themselves. This arrangement seemed to work out extremely well for all those involved.

In advance of the interviewers' arrival in a community, Manuel Benitez, the Manager of the Credit Union Federation, sent a letter advising the manager of the local credit union that a survey was to be conducted in his area in the near future. Mr. Benitez asked the manager to cooperate with the interviewers by informing the members, randomly selecting the farms to be visited and locating them at the proper time.

F. Cost of the Survey. Each of the three interviewers received a salary of S/200 (US$10.00) per day and S/60 (US$3.00) per diem, plus the cost of his transportation. Each man completed an average of two or three interviews a day and finished the 184 interviews in approximately five weeks, which also included the time spent in training, traveling and the writing of a report of their experiences.

The students from Catholic University completed 46 interviews in Yaruqui during two successive weekends at a total cost of S/300 (US$15.00), representing the cost of their transportation.

Thus the cost of the entire survey including salaries, transportation, per diem and miscellaneous expenses was S/21,647 (US$1,045). This was about US$1,000 less than the original estimates because students carried out the interviews in one area at a nominal cost, and one member of the interviewing team was already under contract at USAID/Ecuador, and therefore received pay only for the work which he performed during weekends.

G. Size and Distribution of the Sample. In order to study a cross section of the various personnel and the participants who were involved in the Directed Credit Program, it was decided that the farmers from a total of six credit unions had to be selected --- three on the Coast and three in the Sierra, each from a different province --- because, while there were more Directed Credit Programs in the Sierra Region (18) than in the Coastal Region (8), the average credit union membership in the former region was smaller (334 members) than in the latter (459 members). The reason for using the total credit union membership along with the total number of participants in the DCP as guides to determining the scope of the study was that the size of the farming population in each credit union was not known, nor was the actual number of farmers involved in the DCP, since it was wrong to assume that all members with directed credit loans were farmers (see page 27).

The other criteria used in selecting the credit unions to be visited, in addition to the area distribution requirement mentioned above, were that the credit unions had to have a Directed Credit Program, technical assistance, a difference between directed credit loans and regular

loans, an adequate number of farmers using both types of loans and, finally, a program that had been in operation for a number of years. When these criteria were applied to the credit unions reported to be in the DCP, the following results were obtained:

Out of the list of 26, seven credit unions were eliminated because they did not have an operational Directed Credit Program. They were John F Kennedy, San José de Chimbo, La Magdalena, Radiofónicas, Sucua, Daule and Tosagua. Six others --- San Pedro de Huaca, Guayllabamba, La Buena Esperanza, Pedro Moncayo, Iru and Santa Rosa --- were eliminated because they did not have any personnel who could give technical assistance.

One of the main objectives of the study was to isolate the farmers who participated in the DCP so that a comparison could be made between them and the farmers who used regular agricultural production credit from the same credit union. The questionnaire was structured to facilitate this comparison. Therefore, six credit unions were eliminated because there was no discernible difference between these two types of agricultural loans. The six were Carchi, San Gabriel, Guaranda, Pallatanga, Babahoyo and Bahía.

The credit union Calceta was not selected, even though it met most of the above-stated requirements, because its DCP was less than one year old. Finally, the credit unions Santa Teresita and Vinces were not selected because they had only two farmers and four farmers, respectively, using regular agricultural loans. Neither group of farmers was of sufficient

size to make the necessary comparison with the DCP. That left only the credit unions San Miguel, San Pedro de Guanujo, Yaruqui and 23 de Julio which met all the criteria, except the area distribution requirements. Therefore, San Pedro de Guanujo was eliminated because it was in the same province as San Miguel; 23 de Julio was eliminated for the same reason and because 20% of the farmers in its DCP were interviewed during the pretesting of the questionnaire.

The credit unions San Miguel and Yaruqui were chosen as a result of the above-described process of elimination, but four more still had to be selected. After lengthy discussions with the National Federation, the credit unions Daule, Iru, Santa Rosa and Carchi were finally selected because the Federation officials felt that these four credit unions had the best programs in each of the different provinces. They insisted this was so, even though Daule reported no one in the DCP and Santa Rosa and Iru did not have any technical assistance. Thus, the sample which was ultimately decided upon was inadequate for a number of reasons, but representative, nevertheless, of some of the better programs in the DCP.

The following chart indicates the number of farmers interviewed in each of the six credit unions and their distribution within each of the three groups. The numbers in parentheses represent the percentage of the whole group that was interviewed (e.g. in Yaruqui in Group I --- the farmers in the DCP --- 15 farmers were interviewed out of a total of 29; therefore, 52% of the whole group was interviewed).

CREDIT UNION	PROVINCE	LOCATION	GROUP I*	GROUP II*	GROUP III*	TOTAL
1. Yaruqui	Pichincha	Sierra	15(52%)	20(58%)	11	46
2. San Miguel	Bolívar	Sierra	11(15%)	4(36%)	10	25
3. Carchi	Tulcán	Sierra	12(8%)	20(10%)	20	52
4. Daule	Guayas	Coast	0	29(13%)	20	49
5. Iru	Los Ríos	Coast	11(16%)	11(16%)	11	33
6. Santa Rosa	El Oro	Coast	5(13%)	11(20%)	10	25
			54(20%)	95(26%)	82	230

*Group I --- Directed Credit Program
Group II --- Regular agricultural loans from the credit union
Group III --- Outside the credit union system

The 54 interviews performed in Group I represent a sampling of 3% of all the farmers who have participated in the Directed Credit Program since its inception in 1965. The 95 interviews conducted in Group II represent a sampling of 5% of all farmers who have had regular agricultural loans during the past year in the 26 DCP credit unions.

H. Report of the Interviewing Team. The three-man interviewing team, after having completed all the interviews in the field, submitted the following report on its experience:

I. Impressions of the Five Areas Visited:

1. San Miguel is located in the Andes Mountains. Its principal crops are corn and wheat. Its topography is uneven. The farmers in the area have problems with the marketing of corn and other products. There is a small percentage of Indians in the population.

The manager of the local credit union tried to help us as much as possible, but there was some delay in carrying out the survey because he did not work full time in the service of the credit union. The Peace Corps

Volunteer was very cooperative and gave of his time willingly. We feel that he is a key person in the area, who relates well to the farmers, as they do to him.

The main difficulty we had here in completing our work was in the lack of transportation and the long distances we had to travel from the town to the different communities and from one farm to another. Because it was difficult to get a taxi, horse, etc., most of the work was done by walking.

2. Carchi is also located in the Andes Mountains which accounts for the uneven topography of the land. The area is good for the cultivation of wheat and potatoes and also for the raising of cattle. It carries out much of its commercial activity with the neighboring country of Columbia and the rest with the Republic of Ecuador. The population is mainly "Mestizo".

We should mention that the manager of the credit union is not capable of relating to the farmers, especially those who are not members of the credit union. For this reason it was difficult to obtain the immediate cooperation of the farmers, which made our work complicated.

There was no problem in this area as far as transportation was concerned because there is a highway which connects the different communities. Most of the time we used taxis, but some places had to be reached by foot because of their distance from the main road.

3. Daule is located in the Guayas River Basin; this area is mainly used to grow rice. The farmers utilize the artificial waterways by placing pumps near the water's edge, which is very important to the agriculture in the area. The farmers have problems with land tenure, since most of them are tenants. Their main commercial center is in Guayaquil, but they still have certain problems in marketing rice. The farmers in Daule are wise and cooperative.

The credit union is very solid economically because of the work of the manager. He clearly understood the purpose of the survey. We had no problems performing our work because the manager works full time and was in a position to cooperate.

It was difficult to obtain a car to get to the different communities. Therefore to do most of the work we travel by foot or canoe, which is not a very reasonable means of transportation because it presents many risks. We had no problems in obtaining information from those farmers who were members of the credit union. However, those farmers who were not members resisted giving information because of some previous problems they had involving land tenure.

We were informed that the Peace Corps Volunteer in the area worked more with the National Rice Commission than with the credit union. The leaders

of the credit union consider him a spy and a person who does more harm than good. This is probably the mistake or the fault of the credit union.

4. Catarama. The principal products of this area are rice and bananas. The area is very swampy, which makes travel by land very difficult in both winter and summer. There are no artificial waterways. The people were cooperative. There is no Indian population.

The manager, because of his lack of training, was not in a position to understand the purpose of the survey which we were doing. The credit union is not able to hire a highly educated person to perform the work, and this probably accounts for its weak economic condition. It should also be mention that the work of the survey was not done in an orderly and continuous manner because the manager was the only person available to be our guide.

This is the place where we found the greatest problem with transportation. Part of the day we used a bus which went only 6 km. from the city. Therefore, it was necessary to use deteriorated canoes in order to reach the homes of some farmers. We should also mention that we tried to get a car from USAID/ Ecuador which was used by the Peace Corps Volunteer, but for some unknown reason it was impossible to use it. There was no opposition from the farmers in the area to the giving of the information, which made the compilation of the data very easy. Some of the farmers who were not members of the credit union, however, did not want to cooperate with us because they did not understand the work we were doing.

5. Santa Rosa. Bananas are the main crop in the area. There are waterways. Most of the commercial activity is carried out with foreign countries. We should mention that the methods of exporting bananas have been improved by new techniques which have benefited the farmers. The small farmers receive little attention from the National Banana Directorate where fumigation of their banana crops is concerned, although they pay a fee for this service. Meanwhile, the large farmers receive all the advantages of this service.

The manager is highly trained, and was capable of understanding the reasons for the survey. He works full time for the credit union and was able to cooperate with us. The credit union is in a very solid economic position. The Peace Corps Volunteer, who worked with us, is a dynamic and enterprising person who has very good relations with the farmers and knows the area well. He was a positive influence on the survey we performed.

It was possible for us to reach all the places by using the public buses, which have a daily service. However, many farms were far from Santa Rosa and many of the farmers lived great distances from one another, which meant that we had to do a lot of walking.

II. Impression of the Farmers in the Directed Credit Program and the Other Farmers Interviewed:

A. Directed Credit Program. It appears that the incomes of the farmers with directed credit loans are greater than those of other farmers, but this is not because of directed credit. This program only exists in a very small way, because there is no technical assistance and supervision. Therefore, we feel that their greater incomes are the result of the greater efficiency that they have been able to obtain through the use of larger size loans. Also, those who participate in this program are generally more enthusiastic, smarter, and the leaders of the community, and are willing to accept new techniques and advice.

B. Farmers with Regular Agricultural Credit. We noticed that the farmers with regular agricultural credit had lower incomes and used fewer new agricultural techniques. We feel that this is attributable to the fact that they receive smaller loans and that they are a little less interested in modern methods of agriculture. They seem to have a less optimistic outlook towards the future.

C. Farmers who are not Members of the Credit Union. We saw that these farmers still have a traditionalist viewpoint. Seldom did we meet a farmer in this group who had a desire to change, to progress, etc. Most of these people are not interested in new agricultural techniques.

III. Recommendations

The credit union should provide more technical assistance. If this is not possible, then the managers and field inspectors should be thoroughly trained so that they can supply the necessary advice, at least in part. Also, the managers of the different credit unions should classify loans in accordance with the special regulations of the program.

II. The Results

A. Land Tenure and Land Use

1. Farm Size. Farm size was divided into four groups: 1.0 hectare* or less; 1.1 - 5.0 hectares; 5.1 - 10.0 hectares; and 10.1 or more hectares. Individual farm sizes range from a low of 0.6 hectares in Daule and Yaruqui to a high of 84 hectares in San Miguel. The sample, however, primarily consists of farms which are within the 1.1 - 5.0 hectare range; 54.5% of the farms visited in the Sierra Region and 70.1% of the farms visited in the Coastal Region are so classified. The second largest group of farms is in the 5.1 - 10.0 hectare range, as a total of 19.5% and 18.7% of all farms visited in the Coastal and Sierra Regions respectively are within this classification. Unexpectedly there is a higher percentage of large farms (i.e. 10.1 or more hectares) in the Sierra than on the Coast.

A tabulation of the farm sizes according to the three groups of farmers interviewed (i.e. Group I, farmers in the Directed Credit Program; Group II, farmers who use regular agricultural credit; and Group III, farmers outside the credit union system), shows that there is almost no variation among each of the groups located in the Coastal Region, although the farms in Group III are slightly smaller than those in the other two groups. In the Sierra Region, on the other hand, the average size of the farms in Groups I and II is approximately four hectares larger than that of the farms in Group III. This disparity does not hinder a comparison of the characteristics and performance of farms within each region and among each of the three

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*A hectare is a land measure equal to 2.47 acres.

groups. The reader should be conscious of this difference in the average size of farms in analyzing the data which follows.

AVERAGE FARM SIZE
(in hectares)

Sierra		Coast	
Group I (DCP)	8.9	Group I (DCP)	4.6
Group II (Regular)	9.2	Group II (Regular)	4.3
Group III (Outside)	4.6	Group III (Outside)	3.9

PERCENTAGE DISTRIBUTION OF FARM SIZE ACCORDING TO REGION

Region	Total No. Of Farms	Number of Hectares			
		0.0 - 1.0	1.1 - 5.0	5.1 - 10.0	10.1 or more
Sierra	123	9.8%	54.5%	19.5%	16.3%
Coast	107	6.5%	70.1%	18.7%	4.7%
	230	8.3%	61.7%	19.1%	10.9%

PERCENTAGE DISTRIBUTION OF FARM SIZE ACCORDING TO THE THREE GROUPS OF FARMERS INTERVIEWED

Farmers	Total No. Of Farms	Number of Hectares			
		0.0 - 1.0	1.1 - 5.0	5.1 - 10.0	10.1 or more
Group I (DCP)	54	3.7%	57.4%	20.3%	18.5%
Group II (Regular)	94	6.4%	56.4%	25.5%	11.7%
Group III (Outside)	82	13.4%	70.7%	11.0%	4.8%

2. Land Tenure. The principal tenure form in the Sierra Region is ownership of the farm by the farm family. A total of 65% of the farmers in this region own all the land they operate and 91% of these owners have titles to their property. When these statistics are broken down according to the three groups of farmers interviewed, the farmers who are outside the credit union system tend to have a higher percentage of farm ownership (approximately 15%) than the other two groups. The next most common type of land tenure is the combined classification of either ownership-rent or ownership-partnership which accounts for 23% of all farm units studied in this region.

In the Coastal Region the principal tenure form is quite different from that outlined above, as only 19.6% of the farmers interviewed own their own land, while 72% rent all the land they operate. Of those farmers renting land, only 9% have a written contract with their landlords. These figures appear to be relatively constant among the three groups of farmers interviewed.

The partnership form of land tenure does not appear to be popular in either region of Ecuador as only a few farm families (3%) have this type of tenure arrangement for all the land that they operate.

Thus, it appears that a more serious land tenure problem exists in the Coastal Region than in the Sierra Region from a standpoint of farm rental vs. farm ownership.

LAND TENURE

SIERRA REGION - 123 FARMS

	Group I (DCP)	Group II (Regular)	Group III (Outside)	Total
Ownership (with title)	25 (22)	22 (20)	33 (30)	80 (73)
Rent (with written contract)	1 (1)	3 (2)	2 (2)	6 (5)
Partnership (with written contract)	2 (0)	3 (2)	2 (0)	7 (2)
*Mixed (with written contract and title)	9 (3)	15 (5)	4 (0)	28 (8)
Other	1	1	-	2
	38	44	41	123

LAND TENURE

COASTAL REGION - 107 FARMS

	Group I (DCP)	Group II (Regular)	Group III (Outside)	Total
Ownership (with title)	4 (4)	9 (8)	9 (9)	22 (21)
Rent (with written contract)	11 (4)	36 (2)	31 (1)	78 (7)
Partnership (with written contract)	0 (0)	1 (0)	0 (0)	1 (0)
*Mixed (with written contract and title)	1 (1)	4 (4)	1 (1)	6 (6)
Other	-	-	-	-
	16	50	41	107

*Combination classification of either ownership-rent or ownership-partnership

3. Land Use. There do not appear to be any great differences in the percentage of land farmed among the three groups of farms visited in each region. Between the Sierra and the Coastal Regions, however, there does appear to be some variation in land use. There also appears to be a difference when a comparison is made according to farm size, i.e. the larger the farm the smaller the percentage of land cultivated.

PERCENTAGE OF LAND CULTIVATED ACCORDING TO FARM SIZE

Region	0.0 - 1.1	1.1 - 5.0	5.1 - 10.0	10.1 or more
Sierra	100%	78.8%	79.1%	59.9%
Coast	100%	93.3%	85.9%	53.0%

The fact that slightly less land is farmed in the Sierra Region than in the Coastal Region is primarily attributable to the Sierra's topography (i.e. mountains, rocks, etc.) and the practice of using more land for pastures. Only four farmers --- two on the Coast and two in the Sierra --- stated that the amount of land they cultivated was circumscribed by a lack of money or credit.

REASONS WHY TOTAL AREA NOT CULTIVATED
(number of responses)

Sierra		Coast	
Mountains, pastures, rocks	57	Mountains, pastures, rocks	12
Not enough money	2	New land acquisition	2
Other	10	Could afford rental only part of year	2
	69	Other	3
			19

4. Increases in the Size of Farms. Only 10% of all farms studied increased recently in size. Within Group I (the DCP) however, a total of 25.9% of the farms did so, which, in comparison to the other two groups, represents a considerable difference. The reasons for this development were not determined.

NUMBER OF FARMS INCREASING IN SIZE

Group I (DCP)	14	(25.9% of total)
Group II (Regular)	8	(8.5% of total)
Group III (Outside)	1	(1.2% of total)
	23	10.0% of total

B. Farm Workers

The labor supply available is composed of two types of workers, farm family and hired labor. No attempt was made to measure the amount of productive work performed by these two groups by assigning to each of them a computed value. Rather, this part of the study tries only to determine the amount of farm family workers available and the number of additional farm laborers hired to work either temporarily or permanently on the farm.

1. Family Farm Workers. The average farm family consists of between five and six members in both regions and in all groups except for those farmers who are outside of the credit union system in the Sierra Region. Their average family size is approximately four members.

AVERAGE SIZE OF FARM FAMILY

Sierra		Coast	
Group I (DCP)	5.4	Group I (DCP)	5.3
Group II (Regular)	5.3	Group II (Regular)	6.0
Group III (Outside)	3.9	Group III (Outside)	5.5

The number of family farm workers under 15 years of age is negligible on the Coast, and there is only a slightly higher tendency to use this source of labor in the Sierra Region. The average number of family workers 15 years of age and older is relatively constant in all groups with between one and two family members working on each farm.

AVERAGE NUMBER OF FAMILY FARM WORKERS 15 YEARS OF AGE AND OLDER

Sierra		Coast	
Group I (DCP)	1.4	Group I (DCP)	1.5
Group II (Regular)	1.7	Group II (Regular)	2.0
Group III (Outside)	1.6	Group III (Outside)	1.5

Of the family farm workers 15 years of age and older, the head of the household is the major work contributor. In fact, in 52% of all the farm units studied in the Sierra Region and in 69% of those studied in the Coastal Region, the head of the household is the only family farm worker.

In examining the average ages of the heads of households it was found that they tend to be much younger on the Coast (36.3 years) than in the Sierra (45.0 years of age). Also, all credit union members within their respective regions --- Coast and Sierra --- tend to be younger than those farmers outside of the credit union system. Those farmers outside of the credit union system on the Coast, however, are still younger than the youngest group in the Sierra. It is also interesting to note that those farmers in the DCP in the Coastal Region are about 6 years younger than the farmers who use regular agricultural credit; this distinction does not exist in the Sierra Region.

AVERAGE AGE OF HEAD OF HOUSEHOLD

Sierra		Coast	
Group I (DCP)	42.1	Group I (DCP)	32.1
Group II (Regular)	41.4	Group II (Regular)	38.0
Group III (Outside)	51.3	Group III (Outside)	39.1

2. Hired Labor. Only 14 out of all the 230 farms visited have permanent workers and there are none in any Group III farms in either region of Ecuador. Two farms in the Sierra have 30 and 10 permanent laborers respectively.

Most farms hire between three and six temporary workers a year, primarily during the seeding and harvesting of crops. On the Coast there do not appear to be any differences in the number of temporary workers hired, but in the Sierra the farms in Group I average almost four more temporary workers than the farms in Group III, and three more temporary workers than the farms in Group II. The explanation for these differences possibly lies in the disparities in crop yields among these three groups of farms (see "Crop Production," page 138), as there are no substantial differences in the average number of family farm workers and, as between Groups I and II, there are no differences in the size of farms. It should be remembered, however, that Group I farms are approximately four hectares larger than Group III farms, which would definitely have some bearing on the number of workers hired.

AVERAGE NUMBER OF TEMPORARY WORKERS

Sierra		Coast	
Group I (DCP)	6.5	Group I (DCP)	4.3
Group II (Regular)	3.3	Group II (Regular)	4.6
Group III (Outside)	2.8	Group III (Outside)	4.3

The temporary workers earn between 21 - 23 sucres per day in the Coastal Region and between 10 - 14 sucres per day in the Sierra Region. In the former region, the most prevalent form of payment is in cash, but in the latter region the mixed form of cash and food is almost as common.

C. Credit

1. Noncredit Users. The farmers who are outside of the credit union system exhibit a very limited previous history of the use of external capital when compared to the credit union members, i.e. only 12% of the Group III farmers in the Coastal Region and 34% in the Sierra Region have previously used credit. When the noncredit users were asked why they did not borrow money, many of them gave ambiguous replies, mainly because they are ignorant of what is involved in borrowing, fearful of being placed in debt and wary of assuming the responsibility of having to pay back an obligation. Thus, there appears to be a need on the part of the local credit unions for better education in the agricultural community regarding the advantages of belonging to a savings and loan institution and regarding the limited risks involved in using borrowed capital.

REASONS WHY GROUP III FARMERS DO NOT USE CREDIT

Sierra		Coast	
Never needed	8	Never needed	18
Fear of inability to pay back	5	No source	5
Do not like obligations	2	Fear of ability to pay back	5
Never though about it	2	Others or no answer	8
Others or no answer	10		36
	27		

2. Credit Users. The allocation of agricultural credit among the various credit sources demonstrates that without the National Federation's credit union system the majority of small farmers would not be using outside capital. Of the 257 loans received by all the farmers interviewed, only 58 loans, or 22.5% of the total, were granted by either banks or private sources. Of the 58 loans, 16 or 6.2% of the total were received by the farmers who are not associated with a credit union. Those who are credit union members obtained 24 loans from banks (9.3% of the total) and 18 loans from individuals (7% of the total). Thus, it appears that most farmers are not willing or able to obtain credit from these sources, possibly because their farming operations are too small to provide sufficient collateral or the interest rates charged are too high. This leaves the local credit union as the primary source of agricultural credit for farmers at low interest rates (77.5% of all loans granted).

The number of credit union loans per member averages more than one, ranging from a low of 1.1 loans per farmer in Group II in the credit union Yaruqui to a high of 2.4 loans per farmer in Group I in the credit union Santa Rosa. It should be noted, however, that all credit union members interviewed were supposed to have at least one loan, either a directed credit or a regular agricultural loan, which was true in all situations, except for a few farmers in Yaruqui.

CREDIT USERS

Sierra Region - 123 Farms

Total Number of Loans Obtained From:	San Miguel			Yaruqui			Carchi			Totals
	Group I (1)	Group II (4)	Group III (10)	Group I (15)	Group II (20)	Group III (11)	Group I (12)	Group II (20)	Group III (20)	
Credit Union	20	7	0	17	18	0	19	35	0	116
Banks	0	0	0	7	1	3	5	7	4	27
Private Individuals	0	1	0	1	3	1	0	1	1	8
	20	8	0	25	22	4	24	43	5	151
Average Number of Loans Received per Farmer	1.8	2.0	0	1.7	1.1	0.4	2.0	2.2	0.3	
Average Amount of Loans										
Credit Union	3,398	4,154	0	6,950	4,654	0	5,242	4,456	0	
Bank	0	0	0	16,429	5,000	9,800	11,000	8,771	5,025	
Private	0	44,000	0	3,000	21,000	1,000	0	6,000	10,000	

Group I - Farmers in the Directed Credit Program
Group II - Farmers with regular agricultural loans
Group III - Farmers outside the credit union system

CREDIT USERS

Coastal Region - 107 Farms

Total Number Of Loans Obtained From:	Daule		Irú			Santa Rosa			Totals
	Group II (29)	Group III (20)	Group I (11)	Group II (11)	Group III (11)	Group I (5)	Group II (10)	Group III (10)	
Credit Union	40	0	12	12	0	9	10	0	83
Banks	0	0	0	0	0	2	2	3	7
Private Individuals	3	3	6	1	0	1	1	1	16
	43	3	18	13	0	12	13	4	106
Average Number Of Loans Received Per Farmer	1.5	0.2	1.6	1.2	0	2.4	1.2	0.3	
Average Amount Of Loans									
Credit Union	3,287	0	3,746	1,464	0	6,159	10,990	0	
Bank	0	0	0	0	0	2,750	24,000	19,000	
Private	3,667	2,217	4,833	1,000	0	1,500	5,000	2,000	

Almost all loans are used for productive purposes, the most common being general agricultural, livestock, seed and fertilizer in the Sierra; while general agriculture, seed and wages are the most common uses on the Coast. The farmers in the DCP in the Sierra Region tend to use more of their loans for the purchase of seed and fertilizer than do the other two groups, but this contrast does not seem to hold true on the Coast. Personal or consumer loans are only mentioned nine times out of a total of 287 responses.

USE OF CREDIT

Sierra Region

USE	Group I (DCP)	Group II (Regular)	Group III (Outside)
Agriculture (general or unspecified)	17	19	1
Livestock	15	27	5
Seed	23	7	1
Fertilizer	11	5	2
Land Purchase	3	5	2
Machinery	2	-	-
Other	7	10	1

Coastal Region

USE	Group I (DCP)	Group II (Regular)	Group III (Outside)
Agriculture (general or unspecified)	19	30	-
Seed	4	25	4
Wages	3	14	1
Others	2	1	-

3. Credit Terms. One would normally expect direct credit loans to be somewhat larger in size than regular agricultural loans because many credit union loan policies permit a much larger loan-to-savings ratio to farmers in the DCP. It is impossible, however, to make this comparison here because the figures obtained in this study include, in addition to directed credit loans and regular agricultural loans, other types of loans obtained by the farmers. The fact that all loans are included in the calculations also helps explain why the average size of loans in Groups I and II are similar. In the Sierra Region the average size of loans in Group I is S/5,197 sucres and in Group II, S/4,421; in the Coastal Region the average size of loans in Group I is S/4,953 and in Group II, S/5,187. An examination of the average size of loans from commercial banks and private individuals reveals that they are larger than those from the credit unions, but there are too few observations to make any definite conclusions possible. (See the tables on pages 119 and 120 for a summary of these results.)

The loan period for most loans approved by the credit unions in the Sierra is one year, while the loan period in the credit unions on the Coast is six months. The reason for this difference is not known, but it might give some support to the notion that the farmers on the Coast are more realistic credit users that the farmers in the Sierra, and thus are more likely to tie their credit to the growing cycle rather than to try to stretch it out over a longer period of time. It may also indicate a concerted effort on the part of the credit unions on the Coast to provide twice as many members with credit in a year's time. The loan period for

most loans from commercial banks is over one year, and in some instances, as long as three years.

AVERAGE LOAN PERIOD

Sierra Region

Loan Period	Group I (DCP)	Group II (Regular)	Group III (Outside)
0 - 6 months	4	11	1
6.1 - 12 months	50	54	4
More than 1 year	15	8	4
	69	73	9

Coastal Region

Loan Period	Group I (DCP)	Group II (Regular)	Group III (Outside)
0 - 6 months	23	54	3
6.1 - 12 months	6	11	3
More than 1 year	1	4	1
	30	69	7

Interest rates appear to be lowest for bank loans, but the information summarized below does not include the commission charges and other fees which in Ecuador normally amount to 3-4%. Thus the effective interest rates charged by the credit unions in both the Sierra and the Coastal Regions are generally lower than those of banks. This is also confirmed by the farmers themselves, who prefer to borrow from the credit unions rather than other lending institutions because of lower interest rates (see page 125). Although there were few observations, it appears that most private lending sources charge usurious monthly interest rates which

run as high as 120% in some instances in the Coastal Region.

AVERAGE MONTHLY INTEREST RATES ACCORDING TO CREDIT SOURCE

Sierra Region

Credit Source	Group I (DCP)	Group II (Regular)	Group III (Outside)
Credit Union	10.5%	9.5%	-
Bank	9.5%	9.1%	8.8%
Private	24.0%	19.0%	12.0%

Coastal Region

Credit Source	Group I (DCP)	Group II (Regular)	Group III (Outside)
Credit Union	12.0%	12.0%	-
Bank	10.0%	8.5%	9.0%
Private	75.2%	54.0%	90.0%

4. Credit Service. When the credit union members were asked why they prefer to borrow from the credit union rather than from other lending institutions or individuals, they overwhelingly replied that they receive better service from the credit union. The next most-cited reason is lower interest rates. When these same farmers were asked what problems they have with their credit union only 7 out of 134 responded negatively, which raises the possibility that many farmers, through fear of offending the manager or the credit committee and thereby jeopardizing their chances

for future credit, were being very cautious in not offering some constructive criticism. It is also possible, however, that these farmers are genuinely pleased with the service they are receiving, especially in comparison to what they normally receive from other financial institutions. They may also be appreciative and proud of having a savings and loan organization in their own community of which they are a part, and are not critical or demanding of how it functions.

REASONS FOR PREFERRING CREDIT FROM CREDIT UNIONS

Sierra		Coast	
Better service	37	Better service	37
Low interest rates	9	Low interest rates	14
Advantages of membership	8	Status as member of credit union	7
Products sold by credit union	7	Other	8
Status as member of credit union	4		
Other	15		

Credit unions appear to render better service than banks where the amount of time that elapses between the request for a loan and the receiving of credit is concerned. For example, a farmer in the Sierra waits an average of 23.6 days for a credit union to honor his request for credit and 36.1 days for the bank to do so. In the Coastal Region the difference is even more dramatic as a farmer in the credit union waits an average of only 13.4 days before he receives his loan, but two months for the bank to complete the process.

AVERAGE TIME WAITED FOR LOAN
(in days)

Sierra		Coast	
Credit Union	23.6	Credit Union	13.4
Banks	36.1	Banks	60.0
Private	8.0	Private	7.5

A comparison between the number of visits a loan applicant must make to the lending institution and the number which he must make to the bank also indicates that in the Sierra Region the credit unions are providing better service than the banks. There a farmer only has to make two visits to the credit union before he secures his loan, while he must make over four visits to the bank. As far as the Coastal Region is concerned, no difference appears in the average number of visits to these two lending institutions.

AVERAGE NUMBER OF VISITS NECESSARY TO SECURE A LOAN

Sierra		Coast	
Credit Union	2.1	Credit Union	2.1
Banks	4.3	Banks	2.4
Private	2.3	Private	2.1

D. Agricultural Technical Assistance

This section divides agricultural technical assistance into two types: visits made by the various extensionists to the individual farms and group courses or demonstrations held away from the farms. Within this context, 90.7% of the farmers in the Directed Credit Program have received technical assistance which corresponds to the fact that 87% of these farmers considered

technical assistance to be a requirement of the program. Of the farmers with regular agricultural loans, 62.8% have received technical assistance, whereas only 14.6% of the farmers who are outside the credit union system have received assistance. These differences indicate that the farmers in the DCP, at least in the six credit unions visited, are receiving, as a direct result of the program more technical training than the other groups.

1. Farm Visits by Extensionists. In the Sierra Region the extensionists from the Extension Service of the Ministry of Agriculture and the National Wheat Commission visit a higher percentage of Group I farms than Group II i.e. 36.8% of Group I farms are visited by the Extension Service as compared to 15.9% of Group II farms; similarly, 34.2% of the Group I farms receive visits from the National Wheat Commission as compared to only 7.0% of the Group II farms. The credit union personnel (i.e. manager, field inspector, Peace Corps Volunteer) visit approximately the same percentage (30%) of farms in both groups.

On the Coast the number of farms visited by the extensionists does not show the same degree of variation between Groups I and II as that which appears in the Sierra. Most of the visits are made by the National Banana Directorate (18.8% of the farms in Group I; 14.0% of the farms in Group II) and by the credit union personnel (56.2% of the farms in Group I; 54.0% of the farms in Group II). Thus, except for visits from credit union personnel, the farmers in Groups I and II on the Coast do not receive many visits from agencies or institutions.

The information stated above tends to confirm the fact that the Extension Service of the Ministry of Agriculture has not been able to provide the credit unions with enough of this type of technical assistance. It should be noted, however, that in the Sierra Region the combined efforts of extensionists from different agencies and institutions account for about two thirds of all farm visits. A greater number of farms in the DCP should probably have been visited by the credit union personnel because the plans of the program call for this personnel to make periodic visits to the farms to verify the information contained in the loan application, to evaluate the plan of investment and to assist the farmer later in the proper use of his credit.

NUMBER OF FARMS VISITED BY EXTENSIONISTS

Sierra Region

Source of Assistance	Group I (DCP)	Group II (Regular)	Group III (Outside)
Credit Union	12 (31.6%)	13 (29.5%)	0
Government Extension Service	14 (36.8%)	7 (15.9%)	4 (9.8%)
Banks	4 (10.5%)	3 (6.8%)	1 (2.4%)
Private Companies	0	1 (2.3%)	0
National Wheat Commission	13 (34.2%)	3 (7.0%)	2 (4.9%)

Coastal Region

Source of Assistance	Group I (DCP)	Group II (Regular)	Group III (Outside)
Credit Union	9 (56.2%)	27 (54.0%)	0
Government Extension Service	0	1 (2.0%)	2 (4.9%)
Banks	1 (6.2%)	0	0
Private Companies	1 (6.2%)	0	0
National Banana Directorate	3 (18.8%)	7 (14.0%)	1 (2.4%)

An analysis of the average number of visits made to each farm in the Sierra, makes it appear that the extensionists from the credit unions, Extension Services and banks visit Group I farms more often than Group II farms. The reverse is true of the National Wheat Commission. On the Coast, on the other hand, the extensionists from the National Banana Directorate and the credit unions visit Group II farms more often than the farms in Group I.

AVERAGE NUMBER OF FARM VISITS MADE BY EXTENSIONISTS
(Averages refer only to the farms visited and not to the total number of farms in each group)

Sierra Region

Source of Assistance	Group I (DCP)	Group II (Regular)	Group III (Outside)
Credit Union	2.5	1.9	-
Government Extension Service	3.6	2.0	1.8
Banks	2.2	1.7	1.0
Private Companies	-	1.0	-
National Wheat Commission	4.3	7.0	1.0

Coastal Region

Source of Assistance	Group I (DCP)	Group II (Regular)	Group III (Outside)
Credit Union	2.2	3.1	-
Government Extension Service	-	1.0	1.0
Banks	1.0	-	-
Private Companies	1.0	-	-
National Banana Directorate	3.3	4.3	1.0

In general, the type of advise presented by the extensionists tends to correspond to the various credit uses (see page 121) i.e. general methods of farming and use of fertilizer, seed and fungicide. The farmers on the Coast who are in the DCP, however, are not receiving much advice about the use of fertilizer, fungicides and selected seed, as are the other farmers in the area. Surprisingly, the farmers in the Sierra Region who use regular agricultural credit have received more visitors who check on the use of credit than have those in the Directed Credit Program. The opposite, however, is true on the Coast. All but six of the farmers classified the advice given as "good" and most of them said that they were able to utilize all of it. These statistics raise some doubt about whether or not the farmers are being analytical in evaluating the advice they receive.

TYPE OF ADVICE GIVEN ON THE FARM BY THE EXTENSIONISTS

Sierra Region

Type of Advice	Group I (DCP)	Group II (Regular)	Total
Methods of farming (general)	13	10	23
Fertilizer use	11	8	19
Seed use	10	2	12
Care of animals	8	4	12
Soil analysis	5	3	8
Check on use of credit	1	4	5
Other	6	0	6

Coastal Region

Type of Advice	Group I (DCP)	Group II (Regular)	Total
Fertilizer, pesticide, fungicide use	1	10	11
Seed use	2	8	10
Care of crops	1	6	7
Check on use of credit	5	1	6
Use of funds	0	4	4
Other	4	3	7

2. Group Courses or Demonstrations. In the Sierra Region 65.8% of the farmers in Group I attend courses or demonstrations at the various agencies or institutions as compared to 36.4% of the farmers in Group II and 0.7% of the farmers in Group III. On the Coast there are fewer farmers attending courses or demonstrations, but to some extent the same degrees of difference exist among the three groups. A total of 31.2% of the farmers in Group I, 18.0% of the farmers in Group II and none in Group III attend courses or demonstrations on the Coast.

A listing of the above figures in terms of the total number of visits* made by the farmers to the different institutions for courses or demonstrations shows tha the credit unions in both the Sierra and the Coastal Regions receive visits more often than do the other institutions from farmers in both Groups I and II. The Extension Service and the National Wheat Commission in the Sierra Region are visited almost exclusively by Group I farmers. On the Coast Group I farmers are the only ones to visit the National Banana Directorate, while Group II farmers are the only ones to visit the Extension Service.

TOTAL NUMBER OF VISITS TO INSTITUTION
GIVING COURSES OR DEMONSTRATIONS

Sierra Region

Institution	Group I (DCP)	Group II (Regular)	Group III (Outside)	Total
Credit Union	13	15	1	29
Government Extension Service	10	1	2	13
National Wheat Commission	15	0	1	16
	38	16	4	58

Coastal Region

Institution	Group I (DCP)	Group II (Regular)	Group III (Outside)	Total
Credit Union	4	7	0	11
Government Extension Service	0	4	0	4
National Banana Directorate	2	0	0	2
	6	11	0	17

*The information is stated in terms of the number of visits made by the farmers to the various institutions because it is not known how many different courses the farmers actually attended.

An examination of the average number of visits made by each farmer in the Sierra Region to courses or demonstrations shows that the farmers in the DCP have attended an average of one course or demonstration each, whereas the farmers in Groups II and III have attended an average of 0.4 and 0.1 courses, respectively. The averages on the Coast are lower than in the Sierra, with the farmers in the DCP having attended an average of only 0.4 courses or demonstrations each.

AVERAGE NUMBER OF VISITS MADE BY FARMERS
TO COURSES OR DEMONSTRATIONS

Sierra		Coastal	
Group I (DCP)	1.0	Group I (DCP)	0.4
Group II (Regular)	0.4	Group II (Regular)	0.2
Group III (Outside)	0.1	Group III (Outside)	0.0

More advice is being given about the proper use of fertilizer than about any other farming technique, but the courses and demonstrations also cover general agricultural methods, soil preparation and soil analysis, use of selected seed, fumigation and cooperativism. In the Sierra the farmers in the DCP receive more advice on each of the topics discussed than do the other farmers in the area. On the Coast it appears that the farmers in the DCP are not receiving much advice about the use of fertilizer and selected seed, while the farmers with regular credit are. The fact is, however, that either the number of courses being held or the number of farmers attending them is too small to permit definite conclusions.

TYPE OF ADVICE GIVEN AT COURSES OR DEMONSTRATIONS

Sierra Region

Type of Advice	Group I (DCP)	Group II (Regular)	Total
Use of fertilizer	16	8	24
Agriculture (general)	6	4	10
Preparation of the soil and soil analysis	6	2	8
Use of selected seed	5	3	8
Other	10	6	16

Coastal Region

Type of Advice	Group I (DCP)	Group II (Regular)	Total
Use of fertilizer and Selected seed	1	5	6
Fumigation	1	2	3
Preparation of the soil	2	0	2
Cooperativism	0	2	2
Other	2	0	2

3. Use of Technical Inputs. At least one technical input --- either chemical fertilizer, selected seed, insecticides or fungicides --- is used by 94.5% of the farmers in the DCP and by 84.1% of the farmers who received regular agricultural credit. Significantly, a total of 43.9% of the farmers in the Sierra and 61.0% of the farmers on the Coast who are outside the credit union system do not use any of the above-mentioned technical inputs.

Chemical fertilizer, selected seed, insecticides and fungicides are used by a higher percentage of farmers in the DCP than by the farmers in the other two groups. The only exception is on the Coast where the

percentage of farmers using chemical fertilizer is higher among farmers with regular credit than among those with directed credit. Also significant is the high incidence among farmers in the DCP of the use of selected seed and fungicides and insecticides compared to those in the other two groups. The study also reveals that farmers in all three groups use chemical fertilizer more often than they use other technical inputs.

A comparison between the Coast and the Sierra indicates that fewer farmers in the former region use chemical fertilizer and selected seed than in the latter region, though for insecticides and fungicides there are no significant differences between the two regions. The reason for these differences might be related to the fact that the farmers on the Coast receive fewer visitors from the various extension services and they attend fewer courses or demonstrations than do the farmers in the Sierra.

PERCENTAGE OF FARMERS USING CHEMICAL FERTILIZER

Sierra		Coast	
Group I (DCP)	92.1%	Group I (DCP)	37.5%
Group II (Regular)	75.0%	Group II (Regular)	56.0%
Group III (Outside)	53.7%	Group III (Outside)	34.1%

PERCENTAGE OF FARMERS USING SELECTED SEED

Sierra		Coast	
Group I (DCP)	57.9%	Group I (DCP)	25.0%
Group II (Regular)	6.8%	Group II (Regular)	12.0%
Group III (Outside)	4.9%	Group III (Outside)	0.0%

PERCENTAGE OF FARMERS USING INSECTICIDES/FUNGICIDES

Sierra		Coast	
Group I (DCP)	60.5%	Group I (DCP)	60.0%
Group II (Regular)	25.0%	Group II (Regular)	20.0%
Group III (Outside)	7.3%	Group III (Outside)	7.3%

PERCENTAGE OF FARMERS USING NONE OF THE ABOVE

Sierra		Coast	
Group I (DCP)	7.9%	Group I (DCP)	0.0%
Group II (Regular)	6.8%	Group II (Regular)	24.0%
Group III (Outside)	43.9%	Group III (Outside)	61.0%

The farmers in Group I were asked whether they began to use chemical fertilizer, selected seed, fungicides and insecticides before or after they entered the Directed Credit Program. The same information was tabulated for the farmers in Group II by comparing the date they said they began to use these technical inputs and the date their credit union initiated the DCP. The results are impressive: a minimum of 50.0% of the farmers who use any one of the four chemical inputs began to use it after the DCP was initiated or after they entered the program. In general, the farmers in Group II performed better than the farmers in the DCP in that a higher percentage started using a technical input after the credit union initiated a DCP. It should be noted, however, that there are fewer farmers in Group II who use a technical input.

PERCENTAGE OF FARMERS USING CHEMICAL FERTILIZER WHO BEGAN USE AFTER INITIATION OF DIRECTED CREDIT PROGRAM

Sierra		Coast	
Group I (DCP)	54.3%	Group I (DCP)	50.0%
Group II (Regular)	51.5%	Group II (Regular)	82.1%

PERCENTAGE OF FARMERS USING SELECTED SEED WHO BEGAN USE AFTER INITIATION OF DIRECTED CREDIT PROGRAM

Sierra		Coast	
Group I (DCP)	81.9%	Group I (DCP)	50.0%
Group II (Regular)	100.0%	Group II (Regular)	83.3%

PERCENTAGE OF FARMERS USING INSECTICIDES/FUNGICIDES WHO BEGAN AFTER INITIATION OF DIRECTED CREDIT PROGRAM

Sierra		Coast	
Group I (DCP)	73.9%	Group I (DCP)	55.6%
Group II (Regular)	54.5%	Group II (Regular)	100.0%

The figures outlined immediately above offer persuasive evidence that there is a "spillover" from the DCP to farmers who use regular agricultural credit. Before one can draw any definite conclusions, however, further analysis should be made to determine what motivational factors are involved among Group II farmers using new technical inputs for the first time. Several possibilities exist: the credit union has recently opened a small store which sells these products to members; the farmers are using borrowed capital for the first time; they are emulating the examples set by the farmers in the Directed Credit Program; agricultural

technical assistance is available for the first time, etc. Discovery of the actual cause or causes might lead to new, inexpensive ways of helping the farmers change to modern methods of agriculture.

E. Crop Production

In the Sierra Region most farmers grow wheat, but some of them also grow corn and potatoes. On the Coast the type of crop produced varies with the locale, i.e. in Daule and in Catarama (credit union Irú) rice is the major crop, while in Santa Rosa bananas are grown almost exclusively. The table below indicates the number of farmers growing each type of crop and the average number of hectares of each crop cultivated.

NUMBER OF FARMERS GROWING MAJOR CROPS AND THE AVERAGE NUMBER OF HECTARES CULTIVATED

Sierra Region

Type of Crop	Total	Group I (DCP)	Group II (Regular)	Group III (Outside)	Average Number of Hectares
Wheat	80	26	28	26	2.9
Corn	49	14	16	19	0.8
Potatoes	43	13	19	11	0.6
Barley	17	3	7	7	0.4
Broad Beans	13	4	3	6	0.2

Coastal Region

Type of Crop	Total	Group I (DCP)	Group II (Regular)	Group III (Outside)	Average Number of Hectares
Rice[1]	80	11	39	30	2.6
Bananas[2]	24	5	10	9	5.3

1. Daule and Catarama areas only. (No rice was grown by the farmers in Santa Rosa.)
2. Santa Rosa only. (Bananas were grown on only one farm in the other two coastal areas.)

The farmers in the Directed Credit Program, particularly in the Sierra, generally have higher crop yields than farmers in the other two groups, and their yield increases from 1968 to 1969 have also been better. For example, the farmers in Group I in the Sierra produced 27.8 quintals (qq)* of wheat per hectare in 1968 and increased this yield to 29.0 qq in 1969, while the yields of the farmers in Group II decreased from 23.8 qq to 20.0 qq and the yields of farmers in Group III increased from 19.2 qq to 20.7 qq.

The cultivation of corn provided the farmers in the DCP with one of their largest increases in yields. The amount of corn produced by the farmers in the DCP increased from 25.3 qq/hectare in 1968 to 35.8 qq/hectare in 1969, while those outside the credit union system were able to increase their production only by about one half this amount, from 23.4 qq to 28.4 qq. The farmers in Group II, suprisingly, had substantially lower yields in both years than did the farmers in Groups I and III (in 1968, 14.7 qq/hectare and in 1969, 16.6 qq/hectare).

The farmers in the DCP have also had considerably higher levels of potato production per hectare than have those in either of the other two groups. Why they should have produced 104.3 qq/hectare in 1968 and 98.0 qq/hectare in 1969 while the farmers in Groups II and III averaged less than one half this amount is not known. Since many of these farmers did not enter the DCP until after the 1968 harvest, it does not seem possible to attribute much of the yield differential to the DCP.

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*A quintal is a measurement of weight equal to 100 pounds.

In general, the farmers in Group I in the Sierra Region had yields comparable to what one would have expected, given the number of farmers in this group receiving technical assistance and using technical inputs. What is disconcerting is the similarity of the performances of the farmers in Groups II and III. This is particularly true when one considers that 56.8% of the farmers in Group II have received technical assistance and 75.0% of them use chemical fertilizer while only 21.9% of the farmers in Group III have received any technical assistance and 53.7% use chemical fertilizer. On the other hand, however, neither of these two groups had as many users of selected seed or insecticides and fungicides as there are in Group I which might account for the differences and similarities among the three groups (see Technical Assistance, pages 126-138). In conclusion, the figures raise some doubt about whether the farmers who use regular agricultural credit are actually receiving any material benefits as a result of a "spillover" from the Directed Credit Program.

On the Coast the differences among the three groups of rice farmers and between Groups I and II of the banana growers are not as pronounced as they are in the Sierra. Of the three groups of rice farmers, the DCP group had the lowest yields per hectare in 1968, but in the following year had the greatest increase --- from 27.3 qq/hectare in 1968 to 49.0 qq/hectare. The other two groups, however, also had increased yields and their production per hectare in 1969 (Group II, 44.2 qq/hectare; Group III, 45.3 qq/hectare) was not much lower than Group I.

In the cultivation of bananas the farmers in the DCP and the farmers who have used regular credit both made considerable gains between 1968 and

1969. The DCP group showed the greatest increase in yield (318 stems per hectare or 79.3%), though the Group II increase was also substantial (236 stems or 46.3%). Since the farmers in the DCP produced less in 1968, they were able to end up in 1969 with yields similar to those achieved in Group II. The farmers in the outside group only increased their yield per hectare by 100 stems, and therefore did not produce comparable amounts of bananas in 1969.

The similarities in yields between Groups I and II on the Coast might partially be explained by the fact that approximately 68% of the farmers in both groups receive technical assistance and more farmers in Group II use chemical fertilizer but less selected seed than do the farmers in Group I. The farmers in Group III had comparable rice yields, which might be related to the fact that the same percentage of farmers in this group use chemical fertilizer as in Group I. The relatively poor performance of Group III farmers in growing bananas, however, might be because only 7.3% of this group receive technical assistance and 61% do not use technical inputs. (see Technical Assistance, pages 126-138).

Even though both rice and banana yields were similar in Groups I and II, the yield increases from 1968 to 1969 were for both crops significantly higher for Group I than for Group II. This would seem to indicate that the DCP had a positive impact on both rice and banana production, especially since the DCP farmers attached a significantly higher importance than did the other farmers to technical inputs as a factor in yield increases (see pages 144-146).

1968 AND 1969 AVERAGE YIELDS PER HECTARE FOR MAJOR CROPS
(qq/hectare)

Sierra Region

Type of Crop	1968 Group I (DCP)	1968 Group II (Regular)	1968 Group III (Outside)	1969 Group I (DCP)	1969 Group II (Regular)	1969 Group III (Outside)
Wheat	27.8	23.8	19.2	29.0	20.0	20.7
Corn	25.3	14.7	23.4	35.3	16.6	28.4
Potatoes	104.3	42.1	49.6	98.0	47.7	43.8

Coastal Region

Type of Crop	1968 Group I (DCP)	1968 Group II (Regular)	1968 Group III (Outside)	1969 Group I (DCP)	1969 Group II (Regular)	1969 Group III (Outside)
Rice	27.3	34.6	33.0	49.0	44.2	45.3
Bananas[1]						
a. boxes/ha.	618	--	424	1,312	--	698
b. stems	384	509	581	451	745	600
Stem Equivalent[2]	401	509	419	719	745	526

1. Some responses were given in boxes and others in terms of stems.
2. A conversion factor of 1.5 boxes per stem has been assumed.

1. Reasons for Different-Than-Normal Yields. Most of the farmers interviewed felt that the last harvest was different from the normal:

	Group I (DCP)	Group II (Regular)	Group III (Outside)
Yes	32	34	32
No	2	6	2
Don't Know	4	1	3

The reasons given by the farmers for the different-than-normal yields indicate a definite change in attitude on the part of the farmers in the Directed Credit Program. No longer are they using traditional logic to explain their agricultural situations, but rather are now displaying a more sophisticated, analytical thought process. The Sierra Region is again discussed first because it presents a sharper contrast among the three groups, but the same differences are also visible on the Coast.

Farmers in the DCP attribute their increases in yields to recently-acquired technical knowledge to a greater extent than do the farmers in the other two groups (Group I, 33.3%; Group II, 2.8%; Group III, 6.9%). Similarly, a higher percentage of farmers in the DCP than in the other groups consider the use of technical inputs to be the primary factor in their increased yields (Group I, 27.3%; Group II, 13.9%; Group III, 6.9%). Conversely, about three fourths of the farmers in Groups II and III attribute their farming improvements to the weather, while less than one

third of the farmers in the Directed Credit Program consider it to be a factor.

On the Coast a total of 42.9% of the farmers in the DCP attribute their different-than-normal yields to the use of technical inputs, while this reason was given by only 18.6% of the farmers in Group II and 15.0% of the farmers in Group III. There is little difference, however, in the percentages of farmers in the three groups who consider recently-acquired technical knowledge to be a factor in their crop production. Weather is a determining factor to 50.0% of the farmers in Group I, to 62.8% in Group II and to 70.0% in Group III. A severe drought in 1968 probably accounts for these high percentages.

REASONS FOR DIFFERENT-THAN-NORMAL YIELDS
(percent of total responses)

Sierra Region

Reasons Given:	Group I (DCP)	Group II (Regular)	Group III (Outside)
Weather	30.3	72.2	75.9
Technical Inputs (Positive)[1]	27.3	13.9	6.9
Technical Inputs (Negative)[2]	9.1	5.6	10.3
Increased Technical Knowledge	33.3	2.8	6.9
	100.0	100.0	100.0

1. Fertilizer, seed, fungicide
2. Poor use of fertilizer, seed, etc.

Coastal Region

Reasons Given:	Group I (DCP)	Group II (Regular)	Group III (Outside)
Weather	50.0	62.8	70.0
Technical Inputs (Positive)	42.9	18.6	15.0
Increased Technical Knowledge	7.1	9.3	12.5
Other or Don't Know	--	9.3	2.5
	100.0	100.0	100.0

2. Reasons for Future Increases In Yields. The farmers were asked whether they thought their future yields would increase, remain the same or decrease. The responses indicate that the farmers in the DCP generally have a more definite, optimistic view of their future agricultural situations than do the farmers in the other two groups. For instance, in the Sierra Region 52.6% of the farmers in Group I felt that their yields will increase in the future. Similar responses were given by only 27.3% of the farmers in Group II and 17.1% of the farmers in Group III. There were also fewer farmers in Group I (26.3%) who stated that they did not know whether their yields would increase or not in the future, while 40.9% of the farmers in Group II and 63.4% in Group III said they did not know.

Again the statistics on the Coast do not show the same degree of difference as they do in the Sierra. In general, however, they show the farmers on the Coast to be more optimistic about their future yields than are their counterparts in the Sierra. A total of 62.5% of the farmers

in Group I, 42.0% in Group II and 48.8% in Group III felt that their crop production per hectare would increase in the future. The percentage of farmers who responded that they did not know what the future held was similar in all three groups (about one third).

FARMERS' EXPECTATIONS REGARDING FUTURE YIELDS
(percentages)

Sierra Region

	Group I (DCP)	Group II (Regular)	Group III (Outside)
Increase	52.6	27.3	17.1
Same	10.5	25.0	14.6
Decrease	10.5	7.0	4.9
Don't Know	26.3	40.9	63.4
	100.0	100.0	100.0

Coastal Region

	Group I (DCP)	Group II (Regular)	Group III (Outside)
Increased	62.5	42.0	48.8
Same	6.2	16.0	9.8
Decreased	--	10.0	2.4
Don't Know	31.2	32.0	39.0
	100.0	100.0	100.0

The farmers who anticipate increased yields in the future were asked to give a reason for this assessment. The results show only small percentage differences among all three groups in both regions of Ecuador, but one should keep in mind that a higher percentage of farmers

in Group I than in the other two groups answered "increase" for the main question (see results immediately above). A majority of farmers in the Sierra considered technical inputs (i.e. chemical fertilizer, selected seed, etc.) to be the determining factor in future increases in yields, but farmers on the Coast did not judge them to be as important a factor. Instead, a majority of farmers on the Coast felt that the weather would be the major cause of increased production.

A few other results are also worth mentioning: 20% of the farmers in Group I in the Sierra felt that newly-acquired technical knowledge would be the most important factor in increasing their yields, but only 10.5% in Group II and 8.3% in Group III felt this way. On the Coast technical knowledge received more responses from Group II farmers (28.6%) than from Group I farmers (16.6%). Likewise, technical inputs were considered important by 19.0% in Group II and 18.2% in Group III, but by only 8.3% of the farmers in Group I who are in the DCP.

In conclusion, a comparison of the reasons given by the DCP participants for different-than-normal yields and for future increases in productivity seems to indicate that the participants on the Coast exhibit less of an educational and psychological transformation as a result of the program than their counterparts in the Sierra. In fact, in a number of instances they do not perform any better than the other farmers in their region.

REASONS FOR EXPECTING INCREASED YIELDS IN THE FUTURE
(percentages)

Sierra Region

Reasons Given:	Group I (DCP)	Group II (Regular)	Group III (Outside)
Weather	16.6	21.1	16.6
Technical Inputs	50.0	63.2	58.3
Technical Knowledge	20.0	10.5	8.3
Other	13.3	5.3	16.6
	100.0	100.0	100.0

Coastal Region

Reasons Given:	Group I (DCP)	Group II (Regular)	Group III (Outside)
Weather	58.3	42.9	59.1
Technical Inputs	8.3	19.0	18.2
Technical Knowledge	16.6	28.6	9.1
Others	16.6	9.5	13.6
	100.0	100.0	100.0

3. Changes in Type of Crops Grown. More farmers in the Directed Credit Program have made changes to different types of crops or different varieties of the same crop than have the other groups of farmers. This may be another indication that the participants in the DCP are the most willing to adopt changes in their farming operations. Generally the farmers on the Coast have not made as many changes, but this may be because climatic conditions limit the variety of cash crops which can be grown. Certain individuals such as the manager at the

credit union Santa Rosa, however, have been urging the farmers to diversify their crops so that their dependence on a one-crop economy can be eliminated.

PERCENTAGE OF FARMERS WHO HAVE RECENTLY CHANGED CROPS

Sierra		Coast	
Group I (DCP)	34.2	Group I (DCP)	12.5
Group II (Regular)	18.2	Group II (Regular)	10.0
Group III (Outside)	9.8	Group III (Outside)	0.0

F. Marketing

1. Buying Farm Inputs. It is the general opinion of almost all the farmers that they do not have any problems in buying fertilizer, selected seed, insecticides or fungicides. A number of farmers feel, however, that lower prices for these products are possible. The highest percentage who feel this way is in the DCP group (Sierra, 55.3%; Coast, 37.5%) and the lowest percentage is in the outside group (Sierra, 9.8%; Coast, 12.2%). Analyzed from a negative viewpoint, farmers, for the most part feel that there is no way to buy goods at reduced prices or they do not know. Thus, the participants in the DCP appear somewhat more cognizant of alternative purchasing possibilities, but they do not represent a clear majority even within their own group.

ARE LOWER PRICES FOR FARM INPUTS POSSIBLE?
(percentages)

Sierra Region

	Group I (DCP)	Group II (Regular)	Group III (Outside)
Yes	55.3	20.5	9.8
No	42.1	65.9	61.0
Don't Know	2.6	13.6	29.3
	100.0	100.0	100.0

Coastal Region

	Group I (DCP)	Group II (Regular)	Group III (Outside)
Yes	37.5	26.0	12.2
No	43.8	44.0	24.4
Don't Know	18.8	30.0	63.4
	100.0	100.0	100.0

The farmers who thought that lower prices were possible (see chart immediately above) were asked to suggest ways in which they could be achieved. Thirty-eight responses or 63% of the total recommended that the local credit union or a similar cooperative sell farm inputs to members at reduced prices. All but six of these responses were from credit union members.

At the present time a majority of the credit union members interviewed already buy their farm inputs from the local credit union, while those outside of the credit system buy their goods almost exclusively from the private companies (see chart below). Therefore, a situation exists

in which those recommending the use of a cooperative as a means of obtaining lower prices for farm inputs are those already using it. Presumably, they either see the potential for mutual benefit through cooperation as a result of their own credit union experience or they are already receiving goods at reduced prices.

SOURCES OF FARM INPUTS
(Number of farmers using various sources)

Sierra Region

Source of Inputs	Group I (DCP)	Group II (Regular)	Group III (Outside)
Credit Union	30	28	3
Private Companies	19	14	23
Government Sources	0	0	1
Other	2	1	0

Coastal Region

Source of Inputs	Group I (DCP)	Group II (Regular)	Group III (Outside)
Credit Union	7	23	0
Private Companies	9	17	13
Government Sources	17	4	2
Other	0	1	0

2. Selling Farm Produce. The percentage of farmers who feel that they have problems selling their farm produce is relatively small. Only 36.8% of those in Group I in the Sierra and 38.0% of those in Group II

on the Coast --- the highest percentages in each region --- stated that they have marketing problems. It is worth noting, however, that both these groups are composed of credit union members.

DO FARMERS HAVE PROBLEMS SELLING THEIR FARM PRODUCE?
(percentage)

Sierra Region

	Group I (DCP)	Group II (Regular)	Group III (Outside)
Yes	36.8	18.2	12.2
No	57.9	77.3	80.5
Don't Know	5.3	4.5	7.3
	100.0	100.0	100.0

Coastal Region

	Group I (DCP)	Group II (Regular)	Group III (Outside)
Yes	25.0	38.0	9.8
No	75.0	62.0	90.2
Don't Know	--	--	--
	100.0	100.0	100.0

The farmers who said they have marketing problems (see chart immediately above) were asked to state what these problems were. The most frequently mentioned ones were low prices, lack of markets, lack of transportation, credit and other problems concerning the middlemen and too much competition in growing bananas. It is entirely possible that lack of markets (a Sierra Region problem) and lack of transportation

(a Coastal Region problem) are one and the same thing, making them the second most serious problem listed.

MOST FREQUENT MARKETING PROBLEMS

Sierra		Coast	
Low prices	14	Low prices	15
Lack of markets	9	Lack of transportation	6
Credit and other problems with middlemen	7	Competition (too many bananas)	4
Others	2	Others	2

In spite of the fact that most farmers do not feel that they have a problem marketing their crops, a substantial percentage of them feel that higher prices for their farm produce are possible. The statistics of those who feel that higher prices are possible are in descending order, beginning with the highest percentage in the DCP and ending with the lowerest percentage in the group which is outside of the credit union system --- Sierra: Group I (63.2%), Group II (45.4%), Group III (19.5%); Coast: Group I (75.0%), Group II (56.0%), Group III (41.5%). It should be noted that Group III on the Coast has a relatively high percentage of farmers who feel that higher prices are possible when a comparison is made with the figures in the Sierra Region. Again, credit union members generally, and especially those in the DCP, appear more aware of alternative marketing possibilities than do the farmers in the outside group.

ARE HIGHER PRICES POSSIBLE FOR FARM PRODUCE?
(percentage)

Sierra Region

	Group I (DCP)	Group II (Regular)	Group III (Outside)
Yes	63.2	45.4	19.5
No	15.8	18.2	22.0
Don't Know	21.1	36.4	58.5
	100.0	100.0	100.0

Coastal Region

	Group I (DCP)	Group II (Regular)	Group III (Outside)
Yes	75.0	56.0	41.5
No	0.0	4.0	7.3
Don't Know	25.0	40.0	51.2
	100.0	100.0	100.0

The farmers who thought higher prices were possible for their farm produce were asked to suggest ways they thought such prices could be obtained. The overwhelming majority of farmers either recommended selling through a marketing cooperative (40 responses) or directly to the mills (41 responses). The latter recommendation could possibly be interpreted as the final phase of a cooperative marketing system.

HOW CAN HIGHER PRICES FOR FARM PRODUCE BE OBTAINED?

Sierra		Coast	
Marketing cooperative	20	Sell directly to mills	28
Sell directly to mills	13	Marketing cooperative	20
Keep product until demand is strong	8	Keep product until demand is strong	8
Other	10	Other	3

The above endorsement of a cooperative marketing system is probably related to the fact that almost all the farmers sell their produce to middlemen. Only the banana growers in Santa Rosa sell part or all of their production to private international companies. As a result, the prices received by the three groups of farmers in a particular area (i.e. Carchi, San Miguel, Daule, etc.) do not seem to vary much, although some inconsistencies do appear in the potato market. The farmers in Daule receive higher prices for their rice than do the farmers in Catarama (credit union Irú), possibly because they are closer to the marketing center of Guayaquil and the processing mills.

AVERAGE PRICE PER QQ PAID BY MIGGLEMEN FOR WHEAT
(in sucres)

Sierra Region

To Group I Farmers (DCP)	91.4
To Group II Farmers (Regular)	92.9
To Group III Farmers (Outside)	90.9

AVERAGE PRICE PER QQ PAID BY MIDDLEMEN FOR POTATOES
(in sucres)

Sierra Region

		Carchi Only
To Group I Farmers (DCP)	42.2 (22.3)[1]	44.9 (13.1)[1]
To Group II Farmers (Regular)	25.5	24.8
To Group III Farmers (Outside)	35.5	35.5

1. Excluding the farmer who sold 450 qq of potatoes at 65 sucres/qq.

AVERAGE PRICE PER QQ PAID BY MIDDLEMEN FOR RICE
(in sucres)

Coastal Region

		Catarama Only	Daule Only
To Group I Farmers (DCP)	132.1	132.1	---
To Group II Farmers (Regular)	171.3	127.9	178.7
To Group III Farmers (Outside)	160.1	137.3	166.8

Since prices for farm produce do not vary much within an area, differences in farm income among the three groups are primarily determined by the size of the farm and the yields per hectare. In the Sierra Region this generally means that the farmers in the DCP have the largest farm incomes, followed by the users of regular credit and finally by the farmers who are outside of the credit union system. In the Coastal Region, the incomes among the three groups are generally the same within both Catarama and Daule, though in Santa Rosa the farmers in Group III appear to have substantially lower incomes than Groups I and II. (For a discussion of off-farm income see pages 167 to 169).

In conclusion, pressures for changes in marketing systems appear to be developing basically because the participants in the DCP, and also credit union members generally, are becoming more sophisticated in analyzing their marketing situation. They are becoming increasingly aware of the unfair business practices of the middlemen and of the possibility of obtaining higher prices through marketing cooperatives, which can probably be traced to their faith in cooperativism. Marketing promises to be one of the areas to which the Directed Credit Program and the local credit unions will have to devote more of their attention.

G. Farm Improvements. One of the underlying assumptions of the Directed Credit Program is that outside capital and technical assistance will eventually lead to greater farm income, hence to more savings and a greater possibility of internal capital formation. This section attempts to evaluate this proposition by comparing the number of farm improvements made (i.e. construction, maintenance, repairs or purchases), the average cost of improvements per farm and the source of funds for these improvements among the three different groups of farmers.

In both regions of Ecuador the Directed Credit Program has the highest percentage of farms which have recently (i.e. within the past year or two) made farm improvements. Stated negatively, in the Sierra Region 54.5% of the farmers in Group II and 58.5% of the farms in Group III have not made any farm improvements recently as compared to only 28.9% of the farms in Group I. On the Coast the differences are not as clear as

those in the Sierra, at least as between Groups I and II, and there is also a larger percentage of farms without any improvements. A total of 56.2% of the farms in Group I, 66.0% in Group II and 82.9% in Group III do not have any farm improvements.

PERCENTAGE OF FARMS WITH NO IMPROVEMENTS

Sierra		Coast	
Group I (DCP)	28.9	Group I (DCP)	56.2
Group II (Regular)	54.5	Group II (Regular)	66.0
Group III (Outside)	58.5	Group III (Outside)	82.9

Another way of viewing the amount of farm improvements activity among the three groups is the examination of the average number of improvements made per farm. Again, the farmers in the DCP lead their respective regions of the country with 1.3 improvements per farm in the Sierra and 0.7 improvements per farm on the Coast. The probable explanation for the lower number of improvements on the Coast is that most of the farmers on the Coast rent their land and are, therefore, less likely to make improvements unless of course the landlord is willing to reimburse them. Conversely, the greater degree of farm improvement activity in the Sierra can probably be attributed to the large number of landowners and mixed tenure arrangements of ownership-rent or ownership-partnership (see Land Tenure, page 111).

AVERAGE NUMBER OF IMPROVEMENTS PER FARM

Sierra		Coast	
Group I (DCP)	1.3	Group I (DCP)	0.7
Group II (Regular)	0.8	Group II (Regular)	0.4
Group III (Outside)	0.4	Group III (Outside)	0.3

The most common farm improvements are construction, maintenance or repairs of the house (total of 57) and fence (total of 28) and the purchase of animals (total of 21). The complete list below again demonstrates the greater variety and number of improvements made in the Sierra than on the Coast.

MOST COMMON FARM IMPROVEMENTS
(number of improvements)

Sierra		Coast	
House	33	House	24
Animals	21	Fence	8
Fence	20	Irrigation	3
Farm buildings	7	Machinery	3
Tools	7	Others	3
Wells	4		
Machinery	4		
Others	6		

The funds for farm improvements in the Sierra Region come from two sources, savings and loans; in the Coastal Region the funds are from savings only.

SOURCE OF FUNDS FOR FARM IMPROVEMENTS

Sierra Region

Source	Group I (DCP)	Group II (Regular)	Group III (Outside)
Savings	32	20	15
Loan	14	11	1
Savings and loan	1	4	0
Other or no response	1	2	1

Coastal Region

	Group I (DCP)	Group II (Regular)	Group III (Outside)
Savings	10	13	11
Loan	0	0	0
Savings and loan	0	0	0
Other or no response	1	1	0

Substantial differences exist between the two regions of Ecuador regarding the average cost of improvements per farm. The fact that more money on the average is spent for farm improvements in the Sierra than on the Coast can partially be explained by two factors: first, as previously mentioned, the farmers in the Sierra are landowners who tend to spend more money on improvements than do the tenant farmers on the Coast; and second, the farmers in the Sierra use loans in addition to their savings to pay for improvements, whereas the farmers on the Coast use only their savings.

In the Sierra Region the farmers in Groups I and II have spent more money per farm on improvements than have the farmers in Group III. This difference can be explained by the use of loans by the first two groups

and by the use of savings exclusively by Group III. In addition, there appears to be some correlation between the greater farm incomes of Groups I and II and the larger average amounts of money spent on improvements, which tends to confirm one of the theories underlying the DCP, i.e. that as income increases so does internal capital formation. The fact that Group I and II use loans in addition to savings, however, makes it difficult to draw any definite conclusions as to differences in savings among the three groups.

On the Coast the differences in the average cost of improvements per farm also seem to confirm the theory that greater farm income leads to increased savings. This appears so because all three groups of farmers use their savings to pay for farm improvements, but the farmers in the DCP appear to save more, as evidenced by the fact that they spend more on improvements than do the other two groups. The farmers who are outside of the credit union system appear to spend the least amount on improvements, indicating that they save less. Increased farm income, which appears to have resulted in greater savings among the DCP farmers, and to a lesser extent among the users of regular credit, probably comes from the banana-growing area because there is very little variation in farm income among the three groups in the rice growing areas. One mitigating factor against this analysis is that the amount of off-farm income tends to blur the interrelationships between the Directed Credit Program or the use of agricultural credit and increased farm incomes, which

results in increased savings, as measured here by the amount of money spent on farm improvements.

AVERAGE COST OF IMPROVEMENTS PER FARM
(in sucres)

Sierra		Coast	
Group I (DCP)	7,451 (3,856)[1]	Group I (DCP)	4,528 (1,730)[4]
Group II (Regular)	4,701 (2,762)[2]	Group II (Regular)	1,480
Group III (Outside)	2,891 (847)[3]	Group III (Outside)	929

1. Excludes one farmer who spent 180,000 sucres on improvements which was far greater than the average.
2. Excludes one farmer who spent 88,050 sucres.
3. Excludes one farmer who spent 84,650 sucres.
4. Excludes one farmer who spent 46,500 sucres.

The farmers in Group I were asked whether they made their farm improvements before or after they entered the Directed Credit Program. The same information was tabulated for the farmers in Group II by comparing the date on which they said they made the farm improvements and the date when the credit union initiated the DCP. The results do not show any great differences between the two groups, with most of the farmers making their farm improvements after the DCP was introduced into the credit union. Since many of the farmers in Group II used regular agricultural credit after the DCP was initiated, and since a higher percentage of farmers in Group II (78.9%) than in Group I (63.6%) on the Coast began their farm improvements after the DCP was started, one can probably conclude that it is the general use of production credit --- either directed or regular --- which determines whether farm improvements are made rather than directed credit alone or a "spillover" from the DCP.

PERCENTAGE OF FARM IMPROVEMENTS MADE AFTER INITIATION OF DCP

Sierra		Coast	
Group I (DCP)	89.6	Group I (DCP)	63.6
Group II (Regular)	81.1	Group II (Regular)	78.9

H. Animals

This section is not very instructive as far as the dichotomy between the DCP and the other two groups is concerned because there are few distinguishing features between them. This is not true of the two regions of Ecuador, however, as there are more farms in the Sierra with animals than on the Coast.

PERCENTAGE OF FARMS WITH NO ANIMALS

Sierra		Coast	
Group I (DCP)	13.2	Group I (DCP)	31.2
Group II (Regular)	9.1	Group II (Regular)	28.0
Group III (Outside)	9.8	Group III (Outside)	39.0

An examination of the percentage of farms which have various types of animals clearly reveals that a higher percentage of farms in the Sierra have each type of animal than do the farms on the Coast. Although some differences exist among the various groups (e.g. in the Sierra Region there is a higher percentage of farms in the DCP with horses and burros than in the other two groups; a higher percentage of farms which are outside of the credit union system have pigs than do farms in the other two groups), no clear patterns stand out and, therefore, no conclusions can be drawn.

PERCENTAGE OF FARMS HAVING VARIOUS TYPES OF ANIMALS

Sierra Region

Type of Animal	Group I (DCP)	Group II (Regular)	Group III (Outside)
Cows	68.4	72.7	53.7
Chickens	63.2	56.8	68.3
Pigs	55.3	56.8	75.6
Horses	55.3	38.6	26.8
Burros	15.8	4.5	4.9
Sheep	26.3	18.2	22.0
Others	7.9	4.5	9.8

Coastal Region

Type of Animal	Group I (DCP)	Group II (Regular)	Group III (Outside)
Cows	25.0	16.0	14.6
Chickens	50.0	62.0	48.8
Pigs	56.2	50.0	36.6
Horses	18.8	20.0	19.5
Burros	12.5	6.0	9.8
Sheep	--	--	2.4
Others	--	--	4.9

When the statistics on animals are calculated according to both the average number of cows, chickens and pigs per farm and also according to farm size and group, there are still no great differences among the three farm groups. Once again, however, one can observe the differences between the Sierra and the Coast with one exception, i.e. there is roughly the same average number of pigs in each farm size classification in both regions of Ecuador. One expected pattern which does emerge is that the average number of cows per farm increases as the farm size increases. In the Sierra raising chickens is a more important business, with three large chicken operations in the DCP and one in the regular credit group.

AVERAGE NUMBER OF COWS PER FARM ACCORDING TO FARM SIZE AND GROUP

Sierra Region

Farm Size (hectares)	Group I (DCP)	Group II (Regular)	Group III (Outside)
0.0 - 1.0	--	2.0	--
1.1 - 5.0	2.2	1.4	1.9
5.1 - 10.0	5.9	8.3	6.0
10.1 or more	11.9	9.6	12.7

Coastal Region

Farm Size (hectares)	Group I (DCP)	Group II (Regular)	Group III (Outside)
0.0 - 1.0	--	--	--
1.1 - 5.0	0.4	0.3	0.3
5.1 - 10.0	3.5	5.3	0.3
10.1 or more	--	7.7	10.0

AVERAGE NUMBER OF CHICKENS PER FARM ACCORDING TO FARM SIZE AND GROUP

Sierra Region

Farm Size (hectares)	Group I (DCP)	Group II (Regular)	Group III (Outside)
0.0 - 1.0	155.0[1]	1.0	1.7
1.1 - 5.0	8.8	33.9[4]	14.0
5.1 - 10.0	108.4[2]	9.8	5.3
10.1 or more	81.8[3]	16.2	4.7

Coastal Region

Farm Size (hectares)	Group I (DCP)	Group II (Regular)	Group III (Outside)
0.0 - 1.0	--	6.0	1.2
1.1 - 5.0	6.0	9.9	7.8
5.1 - 10.0	15.0	7.7	23.3[6]
10.1 or more	7.0	121.7[5]	15.0

1. Only two farms in this group, and one of them had 300 chickens.
2. One farm had 570 chickens.
3. One farm had 650 chickens.
4. One farm had 500 chickens.
5. Only three farms in this group and one of them had 340 chickens.
6. One farm had 100 chickens and another 40 chickens.

AVERAGE NUMBER OF PIGS PER FARM ACCORDING TO FARM SIZE AND GROUP

Sierra Region

Farm Size (hectares)	Group I (DCP)	Group II (Regular)	Group III (Outside)
0.0 - 1.0	0.5	0.5	1.0
1.1 - 5.0	2.0	2.1	2.5
5.1 - 10.0	1.9	1.7	2.0
10.1 or more	3.1	2.1	1.0

Coastal Region

Farm Size (hectares)	Group I (DCP)	Group II (Regular)	Group III (Outside)
0.0 - 1.0	--	--	0.4
1.1 - 5.0	1.7	1.2	2.0
5.1 - 10.0	1.0	2.0	1.0
10.1 or more	5.0[1]	2.7	2.0

1. There was only one farm in this group.

I. Off-Farm Income

In the Sierra Region the group with the highest percentage of farmers with outside employment is the one which is outside of the credit union system (63.4%). It is followed by the group composed of regular credit users (52.3%) which, in turn, is followed by the participants of the DCP (36.3%). A possible explanation for this particular ordering of the statistics might be that the outside group has the most need to supplement its income because its average farm size is about four hectares smaller than the average size of farms in Groups I and II (see Land Tenure and Land Use, page 109) and its crop productivity per hectare is lower than that of Group I (see Crop Production, page 138), which means that its income from farming is less than that of the other two groups. The fact that the next highest percentage of outside employment is found in the group of farmers who use regular credit also might be related to their low crop yields.

On the Coast the situation is quite different. The group with the highest percentage of outside employment is the DCP. Generally, however,

there are high percentages of outside employment in all three groups which are comparable to that of Group III in the Sierra. The reasons for the statistical similarities might also be related to the fact that farm size and crop productivity per hectare (except for banana production in Group III) are similar among all three groups and thus the need to supplement family farm income is felt equally by all.

THE PERCENTAGE OF FAMILIES WITH OUTSIDE EMPLOYMENT

Sierra		Coast	
Group I (DCP)	36.8	Group I (DCP)	75.0
Group II (Regular)	52.3	Group II (Regular)	64.0
Group III (Outside)	63.4	Group III (Outside)	63.4

Most jobs are held by the father of the family with a higher percentage of fathers working away from their farms on the Coast (95%) than in the Sierra (68%). Thus, in the Sierra there is more of a propensity for sons, daughters and wives to supplement the family income by holding outside jobs, than on the Coast. This is somewhat similar to the family farm labor situation (see Farm Workers, pages 114-115) where more children work on the farm in the Sierra than on the Coast. Most of the jobs on the Coast are permanent, but in the Sierra 60% of the jobs are for six months or less.

The average annual off-farm family income is similar among all three groups in both regions of Ecuador with one exception. Group III on the Coast has an average annual income from outside employment of 1,418 sucres, which is between 1,200 to 1,500 sucres less than what the other groups

make. The reasons for this are not known.

AVERAGE ANNUAL OFF-FARM FAMILY INCOME
(in sucres)

Sierra		Coast	
Group I (DCP)	2,728[1]	Group I (DCP)	2,746[3]
Group II (Regular)	3,094[2]	Group II (Regular)	2,674[4]
Group III (Outside)	3,091[2]	Group III (Outside)	1,418

1. Understated because two families had off-farm incomes, but did not know the amount, and another two families knew only part of their income from outside employment.
2. Understated because one family did not know the amount and another family knew only part of its off-farm income.
3. Understated because two families had off-farm income, but did not know the amount.
4. Understated because one family had off-farm income, but did not know the amount.

J. Level of Living

All three groups of farmers were asked whether they thought their incomes had increased in the last two years. The pattern of their responses is a familiar one: the farmers in the DCP lead their respective regions with the highest percentage of "yes" responses, followed by the regular credit users and last by the farmers who are outside of the credit union system. In the Sierra Region the three groups of farmers are statistically spread out with a total of 78.9% of the farmers in Group I, 45.5% of the farmers in Group II and 17.1% of the farmers in Group III responding that their incomes had increased in the last two years. On the Coast another familiar pattern is visible, with the differences between Groups I and II (68.8% and 52.0%, respectively) not as great as they are in the Sierra.

Also, Group III (39.0%) has a higher percentage of positive responses than does it counterpart in the Sierra. This information seems to have some correlation with the data found in Crop Production (pages 138-149) and Farm Improvements (pages 157-163), where indications are that the farmers in the DCP, especially those in the Sierra Region, have greater incomes.

HAS FARM INCOME INCREASED IN THE LAST TWO YEARS?
(percentages)

Sierra Region

	Group I (DCP)	Group II (Regular)	Group III (Outside)
Yes	78.9	45.5	17.1
No	13.2	31.8	29.3
Don't Know	7.9	22.7	53.7

Coastal Region

	Group I (DCP)	Group II (Regular)	Group III (Outside)
Yes	68.8	52.0	39.0
No	12.5	10.0	31.0
Don't Know	18.7	38.0	29.3

If the farmer answered that his income had increased in the last two years, then he was asked to explain why. The answers do not fit as neatly into the categories of weather, technical inputs and technical knowledge as they did when the farmers were asked to explain why they had different-than-normal yields (see Crop Production, page 143), but these same general explanations are repeated here. For example, a number

of farmers attribute their increased incomes to use of fertilizer and selected seed, the weather, technical assistance and new methods of farming. Some of the reasons enumerated, however, are not very informative and therefore not as instructive as they might have been. Eleven farmers said that their incomes increased as a result of increased production, but gave no reasons, and 20 farmers mentioned that they worked harder.

REASONS FOR INCREASED INCOME
(number of responses)

Sierra Region

Reasons Given	Group I (DCP)	Group II (Regular)	Group III (Outside)	Total
Worked harder	3	6	3	12
Higher production (no reasons given)	8	3	0	11
Use of credit	6	4	0	10
Fertilizer	4	3	2	9
Selected Seed	6	2	0	8
Technical assistance	4	2	0	6
Weather	3	1	1	5
More land farmed	3	2	0	5
Better price for farm produce	1	2	0	3
Other	0	1	1	2

Coastal Region

Reasons Given	Group I (DCP)	Group II (Regular)	Group III (Outside)	Total
New methods of cultivation	1	12	3	16
Worked harder	3	2	3	8
Weather	2	5	1	8
Use of credit	3	3	0	6
Better care of crops	0	1	4	5
Higher production (no reasons given)	0	0	4	4
More land farmed	1	1	1	3
Better prices for farm produce	1	1	0	2
Better seed	1	0	0	1

The farmers were also asked whether they thought their incomes would increase in the next two years. The responses indicate that the farmers in the DCP in the Sierra Region are more definite and optimistic about their future incomes than are any of the other farmers. A total of 68.4% of the farmers in Group I in the Sierra felt that their incomes would increase while only one third of the farmers in the other two groups responded this way. On the Coast there is practically no difference between Groups I and II (56.0%), which puts Group I lower and Group II higher than their respective counterparts in the Sierra. A total of 39.0% of the farmers in Group III on the Coast felt their incomes would increase, which was exactly the same result found in Group III in the Sierra. All but two farmers who did not expect their income to increase answered "don't know" rather than "no".

There do appear to be some general similarities in the results outlined above and those found on pages 147-148 (Crop Production) concerning the farmers' answers to the question regarding whether they thought their crop yields would increase in the future.

DO FARMERS EXPECT THEIR INCOME TO INCREASE IN THE NEXT FEW YEARS?
(percentage)

Sierra Region

	Group I (DCP)	Group II (Regular)	Group III (Outside)
Yes	68.4	34.1	39.0
No	---	--	--
Don't Know	31.6	65.9	61.0

Coastal Region

	Group I (DCP)	Group II (Regular)	Group III (Outside)
Yes	56.2	56.0	39.0
No	--	2.0	2.4
Don't Know	43.8	42.0	58.5

Only the farmers who thought that their incomes would increase in the future were asked to give their reasons for this expectation. Most of the answers correspond to the ones given above in response to a similar question about past income increases (see page 170). The reasons listed below, however, represent a much stronger endorsement of the use of modern methods of farming as a means of increasing income because the answers given are more specific and such answers as "weather" or "work harder" are not mentioned as frequently.

REASONS FOR EXPECTING INCREASED INCOME

Sierra Region

Reasons Given	Group I (DCP)	Group II (Regular)	Group III (Outside)	Total
Increased fertilizer use	3	4	8	15
Better farming techniques	9	4	2	15
Better seeds	5	2	2	9
More land	4	1	3	8
Investment plan	1	4	0	5
Work harder	2	2	0	4
Better weather	1	2	1	4
Use of fungicides	1	0	2	3
Others	2	3	4	9

Coastal Region

Reasons Given	Group I (DCP)	Group II (Regular)	Group III (Outside)	Total
Increased use of technical inputs	1	16	6	23
Better farming techniques	2	9	4	15
Weather	3	1	3	7
More land	1	1	2	4
Other	3	1	1	5

A level-of-living index was devised by arbitrarily assigning points to 13 preselected indicators, such as two points for possession of radio, one point for use of electricity, one to four points according to the type of material used in the construction of the house, roof and floor. (For a complete list of level-of-living indicators and their assigned points see the Questionnaire for Farmers reprinted in the Appendices.) The index was derived by taking the total points for each farm and averaging them according to their farm size classification.

Three factors should be mentioned about the results: first, the farmers in the Sierra appear to have a slightly higher index level than the farmers on the Coast, which conforms to most of the other data collected in the survey; second, the differences among the three groups and the farm size classifications are not great, indicating that most of the farmers interviewed have similar living conditions; and third, the rural credit union movement appears to be composed of farmers who are a few steps above the subsistence-farmer class.

LEVEL-OF-LIVING INDEX

Sierra Region

Farm Size (hectares)	Group I (DCP)	Group II (Regular)	Group III (Outside)
0.0 - 1.0	7.5	16.0	12.0
1.1 - 5.0	14.0	13.9	13.1
5.1 - 10.0	15.4	14.9	13.0
10.1 or more	22.1	17.9	12.5

Coastal Region

Farm Size (hectares)	Group I (DCP)	Group II (Regular)	Group III (Outside)
0.0 - 1.0	--	10.0	7.0
1.1 - 5.0	12.9	8.9	9.8
5.1 - 10.0	11.8	13.0	10.3
10.1 or more	16.0	15.0	9.0

K. Credit Union Participation

The farmers who are outside of the credit union system have not joined it because of a lack of interest (25 responses), lack of money (14 responses), lack of information (13 responses), lack of time (7 responses), etc. Because these answers do not penetrate the farmers' basic concerns and apprehensions, they are not very helpful in suggesting different methods of attracting new members into the movement. In order to gain a better view of the problem, therefore, this section should be analyzed in conjunction with the one on Credit (page 117), where these same farmers explained why they have never used credit. By reading these

two sections together, one can discern a general lack of knowledge about credit unions and an undercurrent of insecurity.

OUTSIDE GROUP: REASONS FOR NOT WANTING TO BE A CREDIT UNION MEMBER

Sierra		Coast	
Lack of interest (no reasons given)	12	Lack of interest (no reasons given)	13
Lack of money necessary to join	9	Lack of information	8
Lack of information	5	Lack of time	7
Credit Union charges higher interest than banks	2	Lack money necessary to join	5
Bad previous experience with credit union	2	Neighbors did not want to join	2
Others	6	Do not want obligations	2
		Others	2

A majority of farmers in Groups I and II are credit union members because they receive better loan terms (102 responses), such as lower interest rates, fewer guarantees required, etc. The second most frequently mentioned reason is the influence of friends, family, credit union manager and priest (26 responses) which underscores the importance of security in an organization which holds the members' savings.

CREDIT UNION MEMBERS: REASONS FOR JOINING

Sierra		Coast	
Better loan terms	58	Better loan terms	44
Influence of friends, family, manager, priest, etc.	14	Influence of friends, family, manager, priest, etc.	12
Technical assistance	4	Technical assistance	3
Credit union sells technical inputs at relatively low cost	3	Credit union sells technical inputs at relatively low cost	3
Other or no answer	6	Other or no answer	6

Participation in the credit union for most farmers means attending annual meetings (a minimum of 84.0% of the farmers) and saving and borrowing regularly (a minimum of 87.5% of the farmers). Most farmers, on the other hand, do not participate in the daily affairs and activities of the credit union as evidenced by the fact that few farmers are committee members and few attend educational courses. The only possible exception is in the DCP in the Sierra Region where 60.5% of the farmers attend credit union courses.

PERCENTAGE OF MEMBERS ATTENDING ANNUAL CREDIT UNION MEETINGS

Sierra		Coast	
Group I (DCP)	92.1	Group I (DCP)	93.8
Group II (Regular)	90.9	Group II (Regular)	84.0

PERCENTAGE OF MEMBERS SAVING AND BORROWING REGULARLY

Sierra		Coast	
Group I (DCP)	94.7	Group I (DCP)	87.5
Group II (Regular)	88.6	Group II (Regular)	92.0

NUMBER OF MEMBERS ON CREDIT UNION COMMITTEES

Sierra		Coast	
Group I (DCP)	10 (26.3%)	Group I (DCP)	2 (12.5%)
Group II (Regular)	4 (9.0%)	Group II (Regular)	5 (10.0%)

NUMBER OF COMMITTEE MEMBERS ATTENDING MEETINGS

Sierra		Coast	
Group I (DCP)	6	Group I (DCP)	1
Group II (Regular)	3	Group II (Regular)	4

PERCENTAGE OF MEMBERS ATTENDING EDUCATION COURSES

Sierra		Coast	
Group I (DCP)	60.5	Group I (DCP)	12.5
Group II (Regular)	27.3	Group II (Regular)	14.0

The credit union members suggested a number of ways in which the services of their organization could be improved: easier borrowing terms (29 responses), more agricultural technical assistance (24 responses), more capital through increased savings of members (12 responses), enforced repayment of loans on time to increase the supply of funds (12 responses), larger loans (12 responses), selling of agricultural technical inputs at reduced prices (12 responses), more education of members (11 responses), etc. It is interesting to note that most of the farmers claim that they joined the credit union because of its easier borrowing terms, but recommend that these terms be made easier. A high percentage of credit union members have received agricultural technical assistance (see Technical Assistance, page 126), but many recommend more help. Some farmers appear irritated with their fellow members for not paying back their loans on time, which they correctly realize reduces the amount of money available for future loans. Since a small percentage of farmers attend education courses and 11 farmers recommend more education of members, it is possible that some credit unions are not providing this service on a regular basis. Although not high on the list, five farmers did recommend a marketing cooperative for farm produce.

HOW CREDIT UNION SERVICES COULD BE IMPROVED

Sierra		Coast	
More technical assistance	13	Easier borrowing terms	20
Larger loans	12	Technical assistance	11
More capital through increased savings	12	Enforce repayment of loans on time	8
More member education	10	Cooperative marketing	5
Easier borrowing terms	9	Sell farm inputs	5
Buy products in greater quantity to reduce selling price	7	More capital	3
Enforce repayment of loans on time	4	Buy machinery	3
Other	10	More improvements necessary	3
Don't know	1	More member education	1
		Don't know	7

L. Conclusions

Generally this study seems to indicate that the participants in the Directed Credit Program have increased their farm productivity, which in turn has meant increased income and accumulated savings as a direct result of the input of outside capital and outside technical assistance into the farm. The actual amount of increase and the actual degree of change that have taken place are still very difficult to assess.

The farmers in the DCP, taken as a whole, appear to be more optimistic about their future agricultural production and farm incomes, more sophisticated in their analysis of the marketing situation, and more active in expanding the size of their farms and changing the types of crops they grow. They also exhibit more diversity in the types of technical farm inputs they use, more intensive use of agricultural technical assistance and a greater degree of farm improvement activity. The problem with the above-stated general impressions is that they are more representative of the three DCP programs in the Sierra than of the two on the Coast.

Probably a combination of factors can explain the poorer performance of the farmers on the Coast, such as a difference of four hectares in the average size of farms, tenancy problems, less intensive programs of technical assistance and education, less extensive use of technical inputs, etc. Whatever the actual causes, some doubt has been raised about the validity of the traditional image of the coastal farmer as being more active, progressive and flexible than the farmers found in the mountain areas.

The regular credit users (Group II), who are also credit union members, follow the DCP farmers in the amount of increase in income and the degree of change which have taken place. Again, this statement is more representative of the situation in the Sierra than on the Coast because the degree of difference between Groups I and II is much more profound in the Sierra. The very fact that these farmers have performed as well as they did, however, has implications for future agricultural assistance programs, i.e. that low cost, less intensive programs can still lead to progress, but impressive gains will probably be sacrificed.

The survey also indicates that the local credit union is a viable institution which provides the small farmer with better loan terms and quicker service than he can obtain from another institution. In many instances, the credit union is the sole source of credit for many small farmers and the only place where they can purchase technical farm inputs at reduced prices.

In spite of the general trends outlined above, the problems and shortcomings inherent in this study are obvious: some of the data collected are inconsistent, inaccurate and incomplete; more questions are raised than answered about the actual impact of the Directed Credit Program and how it differs from regular agricultural credit. Thus, this study should be viewed as the first step in a continuous process of analysis with each succeeding effort refining and improving upon the techniques and data which preceded it.

SECTION IV

A STUDY OF TECHNICAL AGRICULTURAL ASSISTANCE

Technical assistance is considered an integral part of the development theory underlying the Directed Credit Program. The theory holds that without on-the-farm training and/or a program of education of improved farming techniques the farmer will not be able to increase his farm productivity and will thereby fail to make the best possible use of his credit. The purpose of this section is to examine this phase of the DCP from the viewpoint of those giving the advice, the agricultural extensionists.

The members of the interviewing team received instructions to interview in each of the six areas they visited, in addition to the farmers, all agricultural extensionists including government, private company, bank and local credit union extensionists and Peace Corps Volunteers who worked with the local credit unions. They were also to interview anyone whom the farmers mentioned as having given them assistance. Finally, they were to question anyone who had given an educational course or demonstration in the area, which many times meant the "gerente" or manager of the local credit union. In all only 8 people were interviewed: 6 managers of credit unions, 1 Peace Corps Volunteer and 1 field inspector. Although this was a very disappointing number and distribution of interviews, it was representative of the fact that the credit union managers have been responsible for providing much of the technical assistance which has been given in the Directed Credit Program.

RESULTS FROM THE INTERVIEWS WITH THE EXTENSIONISTS

Sierra and Coast Regions - 8 Interviews

1. Principal Advice Given to the Farmers by the Extensionists:

		Number of Responses
A.	Use of fertilizer	4
B.	Use of fungicides and insecticides	4
C.	Correct use of credit	4
D.	Family Budget	3
E.	New methods of farming	3
F.	Importance of saving and investing	2
G.	Use of improved seed	2
H.	Cooperativism	1
I.	Soil analysis	1
J.	Importance of accepting technical advice	1

2. Failure of Farmers to Follow the Advice Given

A. 6 extensionists have problems getting the farmers to follow their advice; 2 extensionists have no problems.

B. List of the problems of getting farmers to follow advice:

		Number of Responses
1)	Farmers are resistant to change	3
2)	Lack of education	1
3)	Farmers do not want to be visited unless they think they have a problem	1
4)	Lack of money	1
5)	Extensionists are not in a position to control the investments	1
6)	Extensionists are not in a position to control the methods of farming	1

3. The Principal Problems of Farmers:

		Number of Responses
A.	Lack of marketing system	5
B.	Economic, cultural, educational problems	4
C.	Land tenure	3
D.	Lack of technical assistance	3
E.	Wrong use of fertilizer	1
F.	Failure to diversify type of crops grown	1
G.	Lack of capital	1

4. Problems Extensionists Have in Performing Their Work:

		Number of Responses
A.	Lack of capital	4
B.	Failure of farmers to cooperate in the repayment of their loans	3
C.	Transportation problems	2
D.	The manager must perform the work of the committees	2
E.	Farmers will not follow advice	1
F.	Lack of help from the Federation	1

5. The Directed Credit Program

A. 6 extensionists were familiar with the Directed Credit Program; 2 extensionists were not

B. Reactions of the 6 extensionists to the DCP:

		Number of Responses
1)	Need more technical assistance	4
2)	Helps meet credit needs of small farmers	2
3)	Lack of employees to operate DCP	1
4)	Members receive technical assistance	1
5)	DCP needs more capital	1
6)	Helps agricultural production	1

6. Technical Assistance

A. All 8 extensionists felt that technical assistance could be improved.

B. Suggestions for improving technical assistance:

	Number of Responses
1) More effective help from the Federation	3
2) Help from international organizations	2
3) More effective agronomist from the Extension Service of the Ministry of Agriculture	2
4) Better training and preparation of credit union managers and field inspectors	1
5) Obtain better selected seed	1
6) More cooperation from commercial firms	1
7) Organize the agronomists in an area	1
8) More technical agricultural courses	1

7. Demonstrations of Agricultural Techniques

A. 5 extensionists have given demonstrations of various agricultural techniques and 3 have not.

B. The 5 extensionists gave an average of 24 demonstrations each over the past two years; one of them gave over 100, while the others gave 10, 5, 4 and 3 demonstrations respectively.

C. An average of 9 people attended each of the demonstrations.

D. Type of demonstrations:

	Number of Responses
1) Use of fertilizer	4
2) Soil analysis	2
3) Use of insecticides	2
4) Seeding	1

8. Transportation Problems

A. 6 extensionists have transportation problems, while 2 do not.

B. Type of transportation problems:

	Number of Responses
1) Lack means of transportation	3
2) Lack roads to the farms	3
3) Distances between farmers	1
4) Weather, especially in winter	1

9. The extensionists visited an average of 17 farms per month.

10. Each farm visit took an average of 1 hour 15 minutes; some extensionists averaged 5 minutes a visit, while others averaged as long as 3 hours per visit.

11. The extensionists revisited each farm on the average of once every 4.9 months.

SECTION V

PROPOSED AREAS OF STUDY

On January 12, 1968, Laurence J. Cummings, acting Agricultural Advisor to USAID/Ecuador, discussed in an interoffice memorandum the possibility of establishing a continuous program of statistical agricultural production research through the credit union system, and paraphrased the CUNA Country Director as saying "that such (research) would be impractical if not impossible considering the organization of the Credit Union Federation and the nature of the credit unions."[18] The reason for this was that neither the National Federation nor the individual credit unions have the staff for in-depth studies, since their employees were (and still are) committed to operations and management.

As a result of this study, however, this writer strongly feels that continuous and systematic statistical studies are essential to assure the sound development of the Directed Credit Program. In fact, failure to conduct comprehensive studies and evaluations of this and other programs and operations will surely handicap the Federation in its efforts to cut costs and strengthen the entire credit union movement. Such analysis need not necessarily involve the Credit Union Federation in time-consuming work or undue expenses. This section attempts to outline those areas which should be studied and the possible methodology which could be employed.

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18. Laurence J. Cummings, Memo to Mr. L. Paul Oechsli, Director of AID/Ecuador, "Assessing Production Increases, Credit Union Program," Jan. 12, 1968.

I. Analysis of the Operation of the Directed Credit Program at the Local Level

It is recommended that the Directed Credit Department continue to obtain information concerning the operation and administration of the DCP which was gathered for the first time during the data-collecting phase of this study. The information obtained should include the following: the total number of members who participate in the DCP in each credit union during the year and the total amount of the loans granted for use in the program; a detailed listing of the users of directed credit into the number of farmers, artisans and small businessmen and also the purposes for which the loans were granted; the total number of members who use regular agricultural loans in each credit union during the year and the total amount of these loans; the total number of loans approved for production purposes and consumer purposes in each credit union; the name of the agronomist or agricultural expert who advises the farmers in each credit union, the name of the agency or private company he represents, the amount of time he spends per month working with the farmers, the type of advice he gives and the way he performs his work (e.g. demonstrations, courses, visits to experimental plots, etc.) and the total number of farmers with both directed credit loans and regular agricultural loans who receive this technical assistance; the total number of farmers in each credit union, the total amount of credit they receive, the total number of nonfarming members and the amount of credit they receive, the extent of the demand for credit by each of these groups and the number of loans granted and/or denied to each of them.

The list of the farmers in the DCP and the reasons for which the loans were granted should be used by the promoters of the Department during periodic and random farm visits to verify whether the loans are being used for the purposes intended and whether the full amount of each loan is being utilized. The Directed Credit Department could possibly work in conjunction with the Cooperative Bank of Ecuador in this effort (see page 88 for other recommendations for controlling the use of the directed credit loans).

All the above information could be gathered on a year-to-year basis by the promoters of the Directed Credit Department or by the managers and submitted along with the credit union's year-end financial statement. The method employed in this study was the use of students from Central University who completed the work in one weekend in May.

II. A Comparative Study of Three Groups of Farmers

The comparative study undertaken this past year to analyze the effects of the Directed Credit Program (for results see Section III) was disappointing and inadequate for a number of reasons: the lack of structure to the DCP on the local level made it very difficult to isolate the participants from the nonparticipants, the length of the interview limited the amount of information which could be collected and the accuracy of the information was low because the interviewers had to rely upon the farmer's memory of past events. Thus, the usefulness of the study lies in the fact that it gives one an impression of the effects of low-interest loans upon those who are usually outside of the normal credit system. But it is difficult to draw definite conclusions about the causal relationship between the Directed Credit Program and changes in farm productivity,

internal capital formation and level of living. More refined and detailed studies are needed before the real effect of a directed agricultural production program will be known.

Many of the weaknesses of the study could possibly be overcome by revisiting in 1-3 years time the same farmers who were recently interviewed. The questionnaires which were used contain sufficient identification of the farmer and his farm location to enable a team of interviewers to revisit the same groups of people. There would be a number of advantages to be gained from such an effort: 1) some of the data collected this past year could be used as base information for later studies. This would eliminate the need of asking certain background information and thus permit a more concentrated questioning in other areas; 2) similarly, because the length of an interview is limited to less than one hour, more information could be collected in each successive interview because there would be no need to repeat certain questions; and 3) it would make it possible to observe and compare data from two or more different periods of time.

III. Continuous Analysis of the DCP

Another approach to analyzing the effects of the DCP --- one which should have been implemented at the time of the first Pilot Project in Santa Teresita --- involves administering a series of questionnaires to farmers in the program. At the time the farmers take out their directed credit loans they should be asked detailed questions about their entire farming operation. After they have completed use of this particular credit, a follow-up study should be conducted, preferably soon after their crops are harvested and

marketed. From this group of farmers a small number of them should be selected for still further study. During a three-to-five year period two questionnaires should be administered each year to each of these farmers --- one at the time of seeding and the other at the time of harvesting and marketing.

Even more accurate results of the before-and-after effects of the DCP might be obtained by studying a group of farmers for a couple of years before they enter the program and then conduct a follow-up study similar to the one outlined above.

This analysis of the DCP need not necessarily involve a great number of farmers, time or money. It is much more important that it be done in a systematic and continuous manner, rather than on a large scale.

IV. A Comparative Study of a Directed Credit Program and a Program of Education

There are very few major differences between those farmers in the Directed Credit Program and those who used regular agricultural credit. The Credit Union Federation attributes the lack of variation to the fact that there is a "spillover" effect between those actually in the DCP (i.e. planned credit and approved techniques) and those not in the program. This is definitely true to a certain extent. The emphasis on education and promotion, which are central to the DCP, have favorably influenced the nonparticipants to change some of their methods of farming. It is equally possible, however, that these two types of loans appear to have similar results because of a failure to provide technical assistance, supervision and planning to the farmers who have directed credit loans. Given the fact that there have been

modest gains by most of the farmers using either type of production credit, the possitility exists that a much cheaper, more modest program could be created which could achieve similar results.

It is therefore recommended that the Federation select two or three strong credit unions which are presently outside of the directed credit system and introduce an active and intensive program of technical training, which stresses the benefits of productive loans. No attempt should be made to promote increased membership or savings by promising a large loan from the Cooperative Bank. After a period of time, the members of these credit unions should be compared with those in the Directed Credit Program. In this way it might be possible to find the answers to such questions as: Is the promise of a large loan from the Cooperative Bank necessary to inspire the membership to raise matching funds through increased savings or to adopt programs of education? Likewise, is a large loan to the individual farmer (a directed credit loan is usually 8 times the farmer's savings) necessary in order to create incentive among the entire membership of a credit union to increase farm productivity, internal capital growth and level of living? Or is it possible to achieve similar results by implementing a much cheaper program on a much broader basis through the introduction of a strong educational program, which emphasizes technical training and an equally vigorous promotional campaign which promotes the advantages of credit for production purposes? Also, is it not probable that the typical credit union members are a little more ambitious, a little more willing to accept risks, than those that have not joined a credit union and, therefore, are a

little more ready to adopt changes in their farming methods once a determined effort is made to show them how it can be done?

V. Analysis of the Cost of Production and Return on Investment

A study of the cost of production and return on investment is the best way to analyze the effects of the Directed Credit Program. Such analysis would permit a study of the role of capital in agricultural development, the rate of return on farm inputs, the internal capital formation on the farm (including a study of consumption and savings of the farm families), the ability of the farmer to utilize credit, the economic conditions facing the farmer (including a study of prices, inflation and marketing), and the relationship of the farmer's management abilities to farm productivity.

This type of study was not undertaken during the past year for two reasons: 1) it would have required more than the one hour which was estimated as the maximum amount of time for an interview before the reliability of the farmer's responses would decrease substantially; 2) the farmer does not usually remember, for example, what his cost of labor was or how much he spent on farm supplies or how much of the farm produce his family consumed, etc. A number of visits would have been required in order to obtain this information, especially around seeding, harvesting and marketing time.

A modest system could be established for obtaining this data, one which would involve periodic visits to a small number of farms. Assuming that the DCP is reduced in size from 26 credit unions to five to ten, three or four of these could be selected for intensive study. From each of the credit

unions selected, 2 farmers should be chosen in three different groups, depending on farm size --- 0 - 5 hectares, 5 - 10 hectares and 10 or more hectares --- Thus there would be a total of six farmers in each credit union; a maximum of 24.

The following is an outline of the type of information which should be obtained in order to analyze the cost of production and the return on investment:

I. Land Tenure and Land Use

A. What is the total area of land owned or rented or held in partnership?
B. What is the total area of land operated?
C. What are the general uses of land by area?
D. Ask landowners how much land they own, the year of acquisition, whether by purchase or inheritance, amount paid, method of payment, balance due?
E. Ask the farmers who rent land:
   1. What is the duration of the contract? Is it written or oral?
   2. Is rent paid in money or in kind?
   3. Is rent paid in advance?
   4. Payment in kind:
      a. With what products?
      b. Is payment a fixed quantity or a percentage of the harvest?
      c. Is any consideration given to fluctuations in prices or yields? What considerations?
      d. Does the farmer have to make delivery of the rent or does the landlord pick up the produce? What costs are involved?
   5. Does the owner of the land furnish anything in addition to the land that is rented? What (e.g. seed, fertilizer)? How much?
F. How much land is cultivated with the present equipment and labor? What limits the amount of land that can be cultivated or the amount used for livestock?

II. Labor Resources

A. When asking about family members who work on the farm find out the number, their ages, type of work, amount of time worked per day, week, month, and year, amount paid (if any).
B. When asking about outside workers employed on the farm find out the number of permanent and temporary workers, what stages of cultivating they are involved in, the type of work, number of days worked per

year, method of payment (whether in money or in kind), amount of payment.

III. Credit

A. Ask the farmer about any previous use of credit, such as, the source, location, purpose, month, terms, total value, charges or interest, etc.
B. Loans presently outstanding:
   1. Number of loans, purpose, source, location, date of the loan, interest and commission charges, payments made and balance due.
   2. How or where is the farmer going to obtain the money to repay the loans?
   3. Is the farmer behind in his payments? Why?
C. Could the farmer use more credit? Why or why not?
D. Does the farmer save money? If no, why not? If yes, how much per month and where?

IV. Cost of Production

A. Include the cost of laborers (see article II, Labor Resources).
B. Crops harvested this year:
   1. Type of crops, area sowed, area harvested, total quantity produced?
   2. Distribution of the production: How much is used for seed, feed, consumption by others; how much is lost?
   3. What is the total quantity marketed? At what price?
C. Crops harvested last year:
   1. Area harvested, quantity produced, amount marketed, price?
   2. How does the harvest of last year compare with the harvest of this year? If there is a difference, why? How much difference?
D. Cost of inputs:
   1. Cost of seed, fertilizer, insecticides, etc. (include the cost of storage, transportation, commissions, etc.)?
   2. Type of crops involved? In what quantities are the inputs used? What is the cost per crop? Are any of these costs paid for by the landlord?
   3. What are the commercial names of the products, the formulas, etc.?
   4. What are the costs of other production inputs, such as, gasoline, repairs, tools, rental of machines or oxen? Quantity? Value?

V. Livestock

A. What is the farmer's present inventory of livestock?
B. What reductions occured in the number of animals during the past year due to:

1. Deaths?
2. Family consumption or others?
3. Sales?
    a. How many livestock were sold?
    b. Price per unit?

C. What increases occurred in the total number of animals during the past year due to:
1. Births?
2. Purchases?
    a. How many purchases?
    b. Price per unit?
    c. How were the purchases financed?
3. Rustling?

D. Livestock production:
1. What was the production of milk, cheese, eggs, hides, wool, etc., during the past year? Units and quantities?
2. How much of it was consumed on the farm?
3. How much of it was sold? At what prices?

E. Cost of production:
1. What were the costs of forage, grain, concentrates, salts, medicines, marketing, veteranians, etc.?
2. These costs should be calculated according to the type of animals.

VI. Marketing

A. Selling of animals and/or farm produce:
1. Where are the principal markets where animals and/or farm produce are sold?
    a. How far away is the market in either distance or time?
    b. How does the farmer get his goods to market? What costs are involved?
2. To whom does the farmer sell (e.g. marketing cooperatives, government, private firms, middlemen, etc.)?
3. What are the current prices for farm products and livestock?
4. Could the farmer get a higher price for his goods if they were marketed differently than they are now? How?

B. Buying Farm Products:
1. Where does the farmer buy his farm products?
    a. How far away are the stores in distance or time?
    b. How does the farmer get to the various sellers of farm products?
    c. Does the seller deliver to the farm or does the farmer have to find his own means of transportation? What costs are involved?
2. From whom does the farmer buy (e.g. consumer cooperatives, government, private companies, etc.)?

3. What are the current prices for such things as: fertilizer, selected seed, insecticides, fungicides, etc.?
4. Could the farmer purchase the farm products at lower prices? How?

VII. Technical Assistance and Adoption of Agricultural Techniques

A. Has the farmer received any technical assistance on his farm?
   1. Who gave the advice (e.g. the name of the organization, the name of the extensionist)?
   2. What type of advice was given?
   3. How was the information presented (e.g. demonstrations, course, visit to an experimental plot, etc.)?
   4. How many visits were made? How much time was spent during each visit?
   5. Did the farmer use the advice? Why or why not?
   6. How could the technical assistance have been improved?

B. Has the farmer ever received any technical assistance away from his farm in group courses or demonstrations at the local credit union or Extension Service?
   1. Where and when? What organization sponsored the course? Who actually conducted the discussions?
   2. How was the material presented?
   3. How many courses has the farmer attended?
   4. Has he used the advice? Why or why not?
   5. How could the advice have been improved?

C. What types of new agricultural practices have been adopted by the farmer?
   1. Does he raise improved breeds?
   2. Does he use artificial insemination?
   3. Does he vaccinate his animals against diseases?
   4. Does he use selected seed? Fertilizer? Insecticides?
   5. Does he use balanced rations?

VIII. General Expenditures for Overall Farm Operation

A. How much money did the farmer spend on purchases of tools, machinery or vehicles, if any? When?

B. How much did the farmer spend on repairs and maintenance of his tools, machinery or vehicles? How much does he spend on gasoline, oil, etc. in operating his equipment?

C. How many buildings --- house, shed, hog house, stables, corral, etc. --- are there on the farm?
   1. What major improvements have been made, such as, construction, repairs or maintenance of any of the buildings on the farm?

a. How much was spent?
b. When?
c. How were the improvements financed?

2. How much do general expenses, such as rent or taxes, amount to a year?

D. Were any improvements made to the land (e.g. a new well, irrigation system, land clearing, land leveling, new fence, drainage, etc.)?

1. When were these improvements made?
2. What costs were involved?
3. Where did the farmer get the money to pay for them?

IX. Other Sources of Income

A. How many members of the farmer's family work away from the farm, but help support the family?

1. How much do they earn in a year?
2. How many days a year do they work?
3. What type of work?

B. Is there any other farm income, such as, renting of machinery or animals, etc.?

X. Family Expenses and Level of Living

A. How much does the family spend on food per week and per month? What are some of the current prices of food?
B. How much does the family spend on clothing, health, education and transportation?
C. How much does the family spend on recreation and entertainment?
D. Level of living indicators, such as, does the farm have electricity, does the farmer have a lamp or radio, sewing machine or separate bath? Of what type of material are the house, its floors and roof made?

S E C T I O N V I

APPENDICES

APPENDIX A

THE DIRECTED CREDIT PROGRAM IN THE CREDIT UNION SANTA ROSA LTDA.

by

Toney Mankus

Peace Corps Volunteer Tony Mankus was among the 12 Volunteers who were recruited and trained to work specifically in the Directed Credit Program. They arrived in Ecuador in September, 1968, and were immediately assigned to a credit union --- Tony Mankus to Santa Rosa in the Coastal Region. In less than one year, not one member of the group of 12 continued to work in his original assignment as Field Agent or supervisor of the DCP. Because of this development and because he worked full-time in a credit union which was analyzed thoroughly, this writer encouraged him to write about his particular experience in the DCP. The article which follows expresses the opinions and observations of this Volunteer.

The credit union had three basic problems related to the Directed Credit Program: technical assistance, bank loans and fertilizers.

Technical Assistance: Arcelio Ordoñez, the manager, noted that this was and continues to be the basic problem with the program as well as the essential need of the small farmers in the area. In the eight months that I was there we worked very hard to get technical assistance from either Extensión Agrícola or from Juan H. Kurger, but with no success. The problems with Extensión Agrícola were many. First, it was understaffed. Soon after I came to Santa Rosa, the head of the Machala office left for Loja and his replacement didn't come for a long time. The assistant director (Sr. Campoverde) though a good man, had his hands tied. Due to the temporary instability, there was a lack of direction and planning. In addition, a plague had broken out in the area and he was working seven days a week on an emergency basis covering an area that would have kept many more agronomists busy.

The second problem was the lack of money. At times, the Extensión Agrícola didn't even have enough money to buy gas for the trips to the field. The credit union manager offered to buy the 10 gallons of gas for each day spent working with the farmers of the credit union, but that was only a partial remedy. They came out three times, but these were early single visits that didn't get much beyond platitudes. What is needed is visits on a regular basis, especially when problems occur. That way the farmers know when the extensionist is coming and can notify the credit union that he should be visited. The farmers too have plans and sometimes cannot be found unless there is mutual agreement on the day.

The third problem was bureaucratic: Sometimes they get hung up on paperwork and don't want to leave the office. One time we spent the entire day drawing charts and making plans for a whole year in the metodología (methodology) of Extensión Agrícola-credit union working relations. Needless to say, nothing came of it. The work is out in the field. I finally talked them into taking a more pragmatic approach on a trial basis and on three separate days they visited the farmers I was working with in the program, but it never got beyond that. The new head of the Extensión Agrícola office in Machala promised the credit union regular weekly visits, but the result so far has been one visit by Sr. Campoverde to one of the farmers who grows tabacco.

The problem with Juan H. Kruger was that we were fighting the nature of the organization. It is a business and doesn't see a profit in giving technical assistance to the small farmer. We did have about 6 or 8 soil samples analyzed through them at the laboratory of Fertisa in Guayaquil. The service was without charge, but sometimes the farmers had to wait a month and a half to two months before the results came back, even though they promised ten to fifteen days service. On one occasion they organized a field trip to their experimental farm in Machala for the small farmers in Santa Rosa, but that was the beginning of a relationship that never developed. Attempts to coordinate the USAID/Ecuador corn kit program with them, a program which might have given at least a small impetus to crop diversification, failed.

At this point I might touch briefly on my experience with Dirección Nacional del Banano. Every banana farmer, whether he be large or small pays 1 sucre to DNB for each racimo of bananas that he sells. For this he is supposed to receive technical assistance, such as the spraying of bananas against "Terracur", a sketch of his land and visits by agronomists. The small farmer receives none of these. I'm not too familiar with the situation at DNB, but it's probably similar to the Extensión Agrícola. They do have more money than Extensión Agrícola, though they are not without their problems. (Recently it was reported in the newspaper that Anglo cut off the delivery of oil to DNB because they had fallen behind in their account by S/8,000,000 ---- US$400,000. The offshoot was DNB's suspension of all spraying in the Province of El Oro).

In spite of this, the situation with DNB was somewhat brighter...at least in one case. While I was in Santa Rosa, I helped a group of farmers from the nearby town of Miraflores form a pre-credit union and to sign up for membership with DNB. Normally DNB is very reluctant to sign up small farmers individually, as can be testified by a number of individuals who had tried repeatedly.

Having thus overcome the initial hurdle, the group of banana farmers from Miraflores began to receive the services entitled to them, including spraying and visits by agronomists. They now sell bananas regularly to NAFRUCO, an export company, and are well on their way to becoming a legal Banana credit union. This example is only incidental since it has nothing to do with the Directed Credit Program, except perhaps to point out that problems of small farmers must be solved at the local level on a pragmatic basis and not through preconcieved plans formulated in Quito.

Bank Loans: The second fundamental problem that the credit union Santa Rosa has had in the Directed Credit Program has been with the Cooperative Bank. The loan for directed credit came late and could have easily upset the planning of farmers who were expecting the money, if it hadn't been for some astute improvisation on the part of the manager. Here is the story: The Directed Credit Program in Santa Rosa was launched in April 1968 with a meeting to which farmers and dignitaries from the Federation were invited. Due to the demand on the part of the farmers, the first loans were given in August and September with the money the credit union had recently received from the Cooperative Bank. This loan from the Bank was for regular credit, but the manager saw it fit to devote the money to directed credit as it was a social demand long neglected by the leaders. Twenty-two farmers received credit for about S/230,000 (US$1,500). In order not to deprive credit from the rest of the members, the majority of whom were not agriculturists, the manager immediately petitioned the Bank for a directed credit loan using the names of these and other farmers with whom he had already worked out a "presupuesto" (budget). The credit union was promised a loan for about S/300,000 (US$15,000) to be sent in two parts, the first of which was to arrive in November or December. It didn't come until February. Fortunately the manager had forseen the demand for credit by the other members and was able to meet it. When the money did come, he used part of it to repay the balance of the first loan and the remaining for various loans. The second part came in July, though he did ask that it be put off until this time, because the credit union had had a reserve.

From this example can be construed two weaknesses of the Directed Credit Program. First, delay on the part of the Bank can ruin the credit of the farmers who plan on receiving the money according to the cycle of their crops. Second, it points out the looseness of the entire program, which at worst, could result in the misuse of funds.

This is not to negate, however, the good that was provided by making credit on those special terms available to the credit unions. As Arcelio Ordonez pointed out, without the six month grace period available before the first repayment is due, he might never have been able to make loans to farmers. The demand for credit by the other members is a continuous stream and an interuption of the stream to lend money to this type of member who is in the minority would have caused more than mere ripples in the smooth running of the credit union. In addition, the poorer farmers cannot afford to begin payments on the loan the first month following; they must wait for the harvests.

In my last talk with the manager he revealed some interesting statistics. Of the 660 active members in the credit union, 100 are full-time farmers and about 40 more own land which they cultivate, though without devoting all of their time exclusively to agriculture. Though they represent only 20% of the membership, the farmers receive about 30% of all the money lent out. In addition, while only 50% of the regular members have loans, 100% of the farmers have received credit. Finally, the farmers, on the average, have considerably less in savings than the other members. That is to say, though they represent 20% of the membership, their share of money deposited into savings is much less.

Added together, these statistics would indicate a gross misservice to the majority of the membership, if it weren't for the fact that the credit demands of the nonfarmer member have been met. This amazing achivement is due partly to the fact that only 50% of the regular members ask for credit, though a lion's share of the credit must go to the Cooperative Bank and to the Directed Credit Program in general which have injected money into the system to meet a social demand. It reinforces the slogan that cooperativism is a business with a conscience.

Fertilizers: The third and last problem Santa Rosa Ltda. had was with fertilizers. As part of the growing service to farmer members, the credit union decided to invest in fertilizers when notice was sent by the Federation that it had completed a deal with Fertisa and FAO by which selected credit unions could buy fertilizers on a five year interest-free credit. The credit union was to buy the fertilizer at special discount rates and sell it to the farmers at the going prices, the difference to be used in covering storage rent and payment of the loan. When the notice arrived the manager and I were very enthusiastic about it since I was looking to strike some sort of a deal like that even bofore we knew of the Fertisa-FAO-Federation arrangement.

After the credit union was notified that it was one of the selected, the trouble began. The manager went to Guayaquil and visited the office of Fertisa only to be told that the contract between Fertisa and the Federation had not yet been signed and therefore he would not be able to take advantage of either the credit or the special rates. He tried to reach the authorities,

in the Federation, but was unable to do so. The manager finally bought 400 quintales (one quintal is equal to 100 pounds) of fertilizer at a somewhat reduced price, though not as low as had been promised in the letter. He wrote out a check for over S/20,000 (US$1,000).

That was only the beginning. The fertilizer arrived at the beginning of the rainy season and was placed in a small storage room next to the credit union. The sacks of "Sulfato de Amonio" that were on the cement floor broke through because of the humidity and were party ruined. The farmers were not buying the fertilizers because it is washed away in hard rain and because the banana market in Ecuador had taken a turn for the worse. Nobody wanted to spend money improving fruit that wasn't returning the investment. In the meantime the "Sulfato de Amonio" was deteriorating and the credit union was paying rent on the storage room. The 200 qq of Abognan 13-13-20 were not selling at all. Not one soil analysis that we did in the area indicated that there was a need for 13-13-20, yet the Engineer from Juan H. Kruger, Gonzalo Lyola, whose advice was sought before buying the fertilizer, indicated that we should get that mixture.

Trying to minimize his losses, the manager finally began to sell the fertilizers at reduced prices when the market recovered somewhat. At my petition, Dan Moriarty, the head of CUNA in Ecuador, arranged for the credit union to release the undamaged 200 qq of 13-13-20 for sale by Juan H. Kruger in exchange for future credit, but the manager finally decided against it since he now feels that the credit union will remove itself from the deal. Though the bad experience had something to do with it, he said that Juan H. Kruger does not supply UREA, the fertilizer most in demand by farmers, and because it really is a bastardization of the savings and loan credit union to throw itself into the business of selling products. I'm inclined to agree with him.

APPENDIX B

C U E S T I O N A R I O P A R A G E R E N T E S

Fecha_____

1. Nombre de la Cooperativa_____

2. Fecha del último informe_____

   a. Número total de socios activos_____

   b. Total en ahorros_____

   c. Total en préstamos_____

3. Número total de socios que actualmente participan en el Programa de Producción de Crédito Dirigido_____; cantidad total de préstamos_____.

4. Número total de socios que a la presente tienen préstamos regulares para la agricultura_____; cantidad total de préstamos_____.

5. Número total de socios que a la presente tienen préstamos de algún tipo, sea para pequeños negocios, educación, agricultura, comercio, artesanal, mejoras de hogar u otro, etc._____.

   a. Cuántos socios de los arriba mencionados tienen un préstamo para fines de producción (el propósito del préstamos es para aumentar los ingresos)?_____.

   b. Cuántos de los socios arriba mencionados tienen un préstamo para fines de consumo (el propósito del préstamo no es para aumentar los ingresos)?_____.

6. Fecha (mes y año) en que la Cooperativa entró a formar parte del Programa de Producción de Crédito Dirigido_____.

7. Es obligatorio que aquéllos socios que han recibido un préstamo del Programa de Producción de Crédito Dirigido reciban asistencia técnica?

   ☐ Si ☐ No

8. Cuántos préstamos nuevos del Programa de Producción de Crédito Dirigido han sido concedidos a los socios por año, desde que comenzó el Programa?

Año	Número de préstamos nuevos de Crédito Dirigido por año	Cuántos de estos socios han recibido asistencia técnica?	En que forma fué proveída la asistencia técnica (cursos de educación para grupos, visitas individuales a las fincas, etc)?
1969			
1968			
1967			
1966			
Totals			

9. Cómo se selecciona a un socio para la recepción de un préstamo del Programa de Producción de Crédito Dirigido (qué requisitos se toman en cuenta: sumas ahorradas, participación en la Cooperativa, período de tiempo transcurrido en la cooperativa, tipos de cultivo, etc.)? _____

_____

_____

_____

10. Quién de la Cooperativa, de las agencias gubernamentales o instituciones de negocios (comerciales) está disponible para dar asistencia técnica a los socios?

Nombre	Cargo/Agencia	Período de tiempo que emplea en dar asesoramiento cada mes.
1.		
2.		
3.		
4.		

11. Cuál es la diferencia entre un préstamo corriente para la agricultura, y un préstamo del Programa de Producción de Crédito Dirigido? _____

_____

_____

12. Qué determina la cantidad del préstamo que la cooperativa da al socio en:

a. un préstamo corriente para la agricultura _____

_____

b. un préstamo de producción de Crédito Dirigido _____

_____

_____

13. Reciben asistencia técnica aquéllos socios que tienen préstamos corrientes para la agricultura? ☐ Si ☐ No

Cuántos socios reciben asistencia técnica? _____

En qué forma se da asistencia técnica (cursos de educación para grupos visitas individuales a las fincas, etc.)? _____

14. Hay problemas en el Programa de Producción con Crédito Dirigido?

☐ Si ☐ No

Qué clase de problemas? _____

15. Podría ser mejorado el Programa de Producción de Crédito Dirigido?

☐ Si ☐ No

Cómo? _____

APPENDIX C

C U E S T I O N A R I O P A R A A G R I C U L T O R E S

CONFIDENCIAL

Fecha de la entrevista_____

1.0 Identificación y Localización (Sólo para el entrevistado)

1.1 Nombre del agricultor_____

1.2 Provincia_____ 1.3 Cantón_____

1.4 Parroquia_____ 1.5 Nombre del lugar visitado_____

_____ 1.6 Nombre de la cooperativa_____

1.7 Cómo llegó al sitio de entrevista?_____

1.8 Agricultor no socio de una Cooperativa de Crédito ☐

Socio con programa regular de crédito en cooperativa ☐

Socio con Programa de Producción de Crédito Dirigido ☐

Desde cuándo participa usted en el Programa de Producción de Crédito Dirigido? (para el entrevistador averiguar en la cooperativa o al agricultor)_____

2.0 Tenencia de la Tierra

2.1 Qué extensión está trabajando este año?_____ cdra. hts.

2.2 El terreno es de su propiedad? Es arrendado? O tiene al partir?

Sistema de tenencia			Extensión	Título o Contrato?		
	Si	No			Si	No
2.2.1 Propiedad	☐	☐		Tiene Título?	☐	☐
2.2.2 Arrendada	☐	☐		Tiene Contrato?	☐	☐
2.2.3 Aparcería	☐	☐		Tiene Contrato?	☐	☐
2.2.4 Otros	☐	☐				
Total						

2.3 Ha aumentado recientemente los terrenos que usa? ☐ Si ☐ No

Cuánto compró? _____ Arrendó? _____

Al partir? _____ En cuánto le aumentaron? _____

2.4 Qué extensión no ha podido cultivar en este año? ____ Hts. ____ Cdra. ☐ Ninguna

Por qué no ha podito? _____

2.5 Qué extensión de terreno en su fundo es bosque, monte, pastos ladera etc.?

	Extensión cuadras hectareas
Bosque y Monte	
Pastos	
Ladera	
Otros	
Total	

3.0 Mano de Obra

3.1 Díganos los miembros de familia, que dependen económicamente de usted? y quines trabajan con usted en la finca?

Parentesco con el Agricultor	Edad	Sexo	Trabaja en la finca	
			Si	No
Jefe de Familia		M		
Esposa		F		
Total				

3.2 Cuántos trabajadores permanentes y temporales emplea usted para trabajar en su finca (no incluya familiares)? ☐ Ninguno

Número de permanentes ☐ Número de temporales ☐

3.2.1. Cuánto ganan? y cual es la forma de pago? _____

3.2.2 Cuánto ganan? y cual es la forma de pago? _____

3.3 Ha necesitado contratar más peones permanentes o temporales que los usuales? ☐ Si ☐ No

Cuándo? y Por qué?

4 0 Crédito

4 1 Ha sacado alguna vez préstamos antes? ☐ Si (Pasar a 4 2) ☐ No

Por qué no? (Pasar a la pregunta 5.0)

4.2 Dónde obtuvo los préstamos? (Incluir el préstamo actual)

No.	Donde obtuvo el préstamo	Para Qué	En que año consiguió el préstamo	A qué plazo	Qué interés pagó?	Recibido	Por qué pidió aqui?
1.							
2							
3.							
4.							

4.3 Cuál de estas fuentes de crédito prefiere? Por que?

No.	4.4.1 Después de la solicitud que tiempo demoró en recibir el crédito?	4.4.2. Cuántas veces fue a esta institución o persona para gestionar su préstamo?	4.4.3 Tuvo problemas con las instituciones o personas que le dieron los préstamos? (Las indicadas arriba)
1.			
2.			
3.			
4			

5.0 Asistencia Técnica

5.1 Alguna persona ha visitado su finca para darle asistencia o consejos en su trabajo sobre agricultura?

☐ Si ☐ No (Pasar a la pregunta 5 3)

Nombre del visitante e institución	Número de visitas en el último año	Sobre qué fue dado el asesoramiento o consejo?	El asesoramiento fue:			Comentarios
			Bueno	Regular	Malo	

5.2 Ha podido seguir todos, algunos, o ninguno de los consejos dados? ☐ Todos ☐ Algunos ☐ Ninguno

Por qué no? (Qué consejo?)_____

5.3 Consejo o Educación Técnica: preparación del suelo, semilla certificada, densidad de la siembra control de insectos, fertilizantes químicos, nuevos trabajos de cultivo, maquinaria, análisis de suelo, prácticas veterinarias. Ha recibido consejos técnicos durante los dos últimos años? (Excluya a las personas mencionadas arriba) ☐ Si ☐ No

De quién? (gerente de la cooperativa, extensión agrícola, Comisión de Trigo, cursos, etc.)	Qué consejo?	Ha podido utilizar la información?		
		Si	No	Por qué no?

5 4 (Esta pregunta es sólo para Agricultores en el Programa de Crédito dirigido) Es obligatorio que aquellos socios que han recibido un préstamo del Programa de Producción de Crédito Dirigido reciban asistencia técnica? ☐ Si ☐ No

5.5 Usa o ha usado semilla certificada, fertilizantes químicos o insecticidas/fungicidas? ☐ Si ☐ No (Pasar a 6.0)

5.5.1 Cuáles son los cultivos en los cuales empleó semilla certificada, fertilizantes químicos, insecticidas, su fórmula, costo, extensión, etc

Cultivo	Producto Utilizado	Fórmula	Costo de Producto	Extension Empleada	Cantidad por Hts o cdra.	No. de Aplicación

5.6 Cuándo comenzó a usar semilla certificada, fertilizantes químicos, insecticida e irrigación? (Si el agricultor pertenece al Programa de Producción de Crédito Dirigido, preguntarle si fué antes o después de entrar en el programa.)

		Sólo agricultores en el Programa de Crédito Dirigido	
	Fecha	Antes de Programa de Crédito Dirigido	Después de Programa de Crédito Dirigido
Fertilizantes químicos			
Semilla certificada			
Insecticida/fungicidas			
Irrigación			

Pasa a 5.6.1

5.6.1 Usa usted menos, más o la misma cantidad de los productos ya indicados que lo que usaba antes de pertenecer al Programa de Producción de Crédito Dirigido?

	Mas	Menos	Lo Mismo	Por qué?
Fertilizantes químicos				
Semilla certificada				
Insecticida/fungicidas				
Irrigación				

6.0 Producción de Cultivos

6.1 Por favor indique qué cultivos tiene en producción ahora?

(Inclusive las variedades)

Cultivo	Extensión	Producción	Precio de venta

6.2 Por favor indique qué cultivos cosechó el año pasado?

Cultivo	Extensión	Total Cosechado en qq	Total Venta	Precio por qq	Total Recibido

6.3 Fué la cosecha del último año diferente de lo normal?

☐ Si ☐ No ☐ No Sabe

Qué diferencia? _____

Por qué?

6.4 Cree usted que la producción de este año aumentará, mermará o será igual en comparación con lo que usted usualmente ha cosechado? ☐ Aumento

☐ Merma ☐ Igual ☐ No Sabe

Por qué? (Especificar el cultivo y la razón) _____

6.5 Ha cambiodo recientemente los tipos de cultivos que ha venido haciendo?

☐ Si ☐ No

Cuáles fueron los cambios? _____

Por qué hizo los cambios?

7.0 Mercado

7.1 Tiene o ha tenido problemas en comprar los siguientes productos?

Artículo	Si	No	Cuál es el problema?	A quién compra?*
Fertilizantes químicos				
Semilla certificada				
Insecticida/fungicidas				
Combustible/lubricante				
Herramienta de mano				
Otros				

*Vendedor: Cooperativa, comerciante privado, firma privada, intermediarios, gobierno, etc.

7.2 Cree usted que los productos se pueden conseguir a precios más bajos?

☐ Si ☐ No

Cómo?

7.3 Vende parte de la producción? ☐ Si ☐ No (Pasar a 8.0)

Cultivo	A quién Vende?	Cuándo (Qué mes)	Cantidad	Peso	Precio

7.4 Tiene problemas para vender su producción? ☐ Si ☐ No

Cultivo	Cual es el problema?

7.5 Piensa usted que se podría vender los productos a precios más altos que los actuales? ☐ Si ☐ No ☐ No Sabe

Cómo? o Por qué?

8.0 Mejoras Para la Finca

8.1 En los dos últimos años ha construído, comprado o hecho alguno de los mejoramientos siguientes?

Mejoramientos de fundo	Costo	Fecha Aproximada	Donde consiguió el dinero para estas mejoras? (Ahorros préstamos, aumento en ingresos, etc)	En Lab A	D
Casa				☐	☐
Gallinero				☐	☐
Troje				☐	☐

Cercas				
Pozo				
Sistema irrigación				
Drenajes				
Maquinaria				
Animales				
Herramientas				
Otros				

9 0 Animales

9.1 Tiene animales---vacunos, aves, cerdos? ☐ Si ☐ No (Pasar a 10 0)

Qué Tipo?	No.	Muertos por año	Nacidos por año	Vendidos Matados por año	Precio Unidad
Vacuno					
Aves					
Cerdos					
Caballos					
Burros					
Borregos					
Otros					

10.0 Otros Ingresos (no de agricultura)

10.1 Usted u otros familiares trabajan fuera de la finca? ☐ Si ☐ No

Miembro de Familia	Qué tipo de trabajo es?	No. días al mes	No. meses al año	Cantidad ganada/tiempo

11.0 Participación en Cooperativa de Crédito

11.1 Es usted socio de una Cooperativa de Crédito? ☐ Si ☐ No

Por qué? _____

LAS PREGUNTAS SIGUIENTES (EN SECTION #11) SOLO PARA MIEMBROS DE COOPERATIVA DE CREDITO

11.2 Asiste a las reuniones anuales? ☐ Si ☐ No

11.3 Es usted miembro de algún comité? ☐ Si ☐ No

Asiste a las reuniones periódicas de algún comité ☐ Si ☐ No

11.4 Ahorra o presta regularmente? ☐ Si ☐ No

11.5 Ha asistido a cursos educativos? ☐ Si ☐ No

11.6 Hace cuánto tiempo ha sido socio de la Cooperativa de Ahorro y Crédito? _____

11.7 Cómo cree usted que la cooperativa puede mejorar sus servicios?

_____

_____

11.8 Qué piensa usted del Programa de Producción de Crédito Dirigido de su cooperativa? _____

_____

12.0 Nivel de Vida

12.1 Piensa usted que los ingresos de su finca han mejorado en los dos últimos años? ☐ Si ☐ No ☐ No Sabe

Por qué?

12.2 Piensa usted que los ingresos de su finca van ha mejorar en los próximos dos años? ☐ Si ☐ No ☐ No Sabe

Por qué?

Por favor indique:	Si	No	Fecha Aproximada de Adquisición	Escala
12.3 Tiene usted radio?				(2)
12.4 Tiene lámpara (de gas o kerosene)?				(1)
12.5 Tiene máquina de coser?				(3)
12.6 Tiene algún reloj?				(1)
12.7 Tiene electricidad en la casa?				(1)
12.8 Tiene letrina o baño en su casa?				(1)
12.9 Compra periódicos?				(1)
12.10 Tiene cuarto de cocina separado?				(1)

12.11 Qué clase de transporte tiene (Caballo, bicicleta, auto, ninguno, etc.)? _____ (1,1,5)

12.12 Cómo consigue agua para tomar? _____ (3)

PARA EL ENTREVISTADOR: OBSERVE LO SIGUIENTE

12.13 De qué material es el piso de la casa?

☐ Tierra ☐ Cemento ☐ Madera ☐ _____ (1,2,3,4)

12.14 De qué material es la casa? ☐ Tapial ☐ Adobe

☐ Ladrillo ☐ Madera ☐ _____ (1,2,3,4,5)

12.15 De qué material es el techo de la casa?

☐ Paja ☐ Teja ☐ Madera ☐ _____ (1,2,3,4)

SOLO PARA EL ENTREVISTADOR

13.0 Evaluación de la Entrevista

	Evalúe lo siguiente:	Bueno	Regular	Malo
13.1	Cooperación del Agricultor			
13.2	Exactitud de la Información			
13.3	Comprensión de las Preguntas			

13.4 Más comentarios _____

_____

_____

APPENDIX D

C U E S T I O N A R I O P A R A E X T E N S I O N I S T A S

CONFIDENCIAL

Fecha de la Entrevista _____

1.0 Entrevista al Extensionista en la Zona

1.1 Nombre: _____

1.2 Cargo: _____

1.3 Cuál es el principal consejo que usted usualmente da a los agricultores (nuevos métodos agrícolas, uso de fertilizantes, nuevos métodos veterinarios, presupuesto familiar, etc.)?

_____

_____

_____

1.4 Tiene problemas en conseguir que los agricultores sigan sus recomendaciones? ☐ Si ☐ No

Cuáles problemas? _____

1.5 Cuáles son los principales problemas de los agricultores en la zona?

_____

_____

1.6 Qué problemas de operación tiene usted en su trabajo?

_____

_____

_____

1.7 Conoce usted el Programa de Producción de Crédito Dirigido de la cooperativa de ahorro y crédito local? ☐ Si ☐ No

Qué piensa usted del Programa? _____

1.8 Piensa usted que la asistencia técnica al agricultor podría ser mejorada?

☐ Si ☐ No ☐ No Sabe

Si es afirmativo, cómo? Si es "No", por qué no? _____

1.9 Ha dado usted demonstraciones de prácticas de agricultura en los dos últimos años? ☐ Si ☐ No

Cuántas? _____

Dónde? _____

Cuántas personas asistieron a demonstraciones (por término medio)? _____ personas

Tipo de demostraciones? _____

1.10 Tiene usted problemas de transporte para ir a las diferentes fincas?

☐ Si ☐ No

Cuáles problemas? _____

1.11 Cuántas fincas visita usted al mes? _____

1.12 Cuánto tiempo gasta usualmente en cada finca? _____

1.3 Cuánto tiempo pasa antes de que usted visite nuevamente una finca?_____

SOLO PARA EL ENTREVISTADOR

2.0 Evaluación de la Entrevista

	Evalúe lo siguiente:	Bueno	Regular	Malo
2.1	Cooperación del Extensionista			
2.2	Exactitud de la Información			
2.3	Comprensión de las preguntas			

2.4 Más comentarios_____

_____

_____

_____

_____