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Final
Administrative
Report

ADMINISTRATIVE REPORT
FOR THE
SMALL FARM CREDIT PROFITABILITY
AND REPAYMENT PROJECT

September 26, 1977 - September 30, 1981

Department of Economics
Colorado State University
Fort Collins, CO 80523

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FINAL ADMINISTRATIVE REPORT
for the
SMALL FARM CREDIT PROFITABILITY AND REPAYMENT PROJECT
September 26, 1977 - September 30, 1981

**Cooperative Agreement No. AID/ta-CA-3 under
Basic Memorandum of Agreement No. AID/ta-BMA-6**

Submitted by

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Final Administrative Report for the
Small Farm Credit Profitability and Repayment Project
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Introduction

This is the final administrative report submitted under Cooperative Agreement No. AID/ta-CA-3 which is covered by the Basic Memorandum of Agreement No. AID/ta-BMA-6 between the Agency for International Development (AID) and Colorado State University. Its purpose is to summarize expenditures and personnel employment by Colorado State University during the period September 26, 1977 through September 30, 1981. A general summary of all activities during the life of the project also will be included. The Small Farm Credit Profitability and Repayment Project (hereafter referred to as the Credit Project) was a joint effort of Colorado State University and Oklahoma State University (funded under a separate Cooperative Agreement). This administrative report should be considered in conjunction with the companion OSU reports submitted separately. Details on the Memorandum of Understanding between the two universities defining general operating and management procedures can be found in Administrative Report No. 1, on file in AID and the two universities. A listing of CSU project reports is shown in Appendix A.

The Credit Project was designed to develop methodologies which credit institutions in developing countries could use to carry out analyses to improve small farm credit policies, programs, and loan repayment. The project included three major activities: (1) farm-level data collection and analysis, (2) application and utilization of such methodologies in credit institutions in two selected developing countries, and (3) dissemination of results to other credit institutions and developing countries. The project was implemented jointly by Colorado State University (CSU) and Oklahoma State University (OSU) but the overall project coordination rested with CSU. A secondary objective of the CSU part of the Credit Project was to establish a long-term institutional relationship between the selected developing country credit institutions and CSU, particularly with the Department of Economics. The project operated in Honduras for two years and was completed in July 1980 and in the Dominican Republic (DR) for two years and was completed in August 1981. This report summarizes the DR part of the Project while the OSU reports reviewed the activities in Honduras.

Background

The Cooperative Agreements specified three project implementation stages. The first stage was expected to be completed within 6-12 months. Activities suggested for the first stage can be broadly identified as consisting of two major categories. These were to: (1) Initiate the project, including country selection, agreements on responsibilities, and development of a tentative country work plan; and (2) Conduct a literature review and develop a knowledge base. Project activities under these two major headings were summarized in the first annual administrative report. The second and third stages involved initiation of activities in the countries selected and dissemination of results, respectively, which were covered in the second, third and this final administrative report.

As would be expected, the major efforts of the Credit Project staff during the first year were devoted to initiating the project. These implementation activities were especially important since the project involved a joint programming effort of Colorado State University and Oklahoma State University in two separate developing countries. Not only was it necessary to establish contacts and working agreements with credit institutions in the two developing countries but also to establish a feasible working relationship between the two participating U.S. universities.

To coordinate CSU-OSU activities, a Memorandum of Understanding was signed by both parties to clarify understandings and responsibilities. The overall policy and programming functions were established by the Project Management Committee which included representatives from each university. This committee met at least once a year for project review and planning. The last meeting was held in September 1980 which corresponded with the termination of the OSU cooperative agreement. Because of problems in locating a second country, the CSU cooperative agreement was extended for one more year.

In May 1977, before the AID Cooperative Agreements were finalized, Dr. Tinnermeier traveled to Honduras with Anne Ferguson (AID/W) to explore the feasibility of locating the proposed Credit Project in that country. Contact with the National Development Bank (BNF) continued by correspondence through the summer.

In August 1977, Drs. Odell Walker (OSU) and Ronald Tinnermeier traveled to the Philippines for the purpose of discussing the possible location of the Credit Project in that country with the Farm Systems Development Corporation (FSDC). The AID Cooperative Agreements with CSU and OSU were signed in late September 1977.

Negotiations continued during early FY 1978 with the BNF in Honduras and the FSDC in the Philippines. In February 1978, Badger, Walker, Loren Parks, and Harry Mapp from OSU and Tinnermeier (CSU) returned to Honduras to finalize agreements there.

As time went on, it became clearer that it was going to be difficult to develop a satisfactory, collaborative working relationship with FSDC

within the time frame specified for the Credit Project. Therefore, in consultation with AID/W, other countries were considered and Nicaragua was determined to be a feasible alternative. A Memorandum of Understanding was prepared and signed by the General Manager of INVIERNO (Campesino Development Institute) in July 1978. Advertisements for the resident professional position were released and selection of an acceptable candidate was progressing through the CSU Affirmative Action procedures. However, before that process was finished, hostilities broke out in Nicaragua and became progressively worse during the fall. As a result, discussions were held with AID/Washington to determine alternative courses of action. Discussions with the Latin America Bureau in AID indicated that USAID/Santo Domingo might be receptive to implementing the Credit Project with one of the credit institutions in the Dominican Republic.

In December 1978, Karen Wiese, AID Project Manager, and Ronald Tinnermeier, Project Coordinator, traveled to the DR to initiate discussions with USAID and the DR credit institutions. The initial response was positive. Discussion continued by phone and correspondence. In March 1979, Ronald Tinnermeier and Odell Walker (OSU) returned to the DR and a decision was made to locate the project with the Agriculture Bank (Banco Agricola). A draft Memorandum of Understanding was prepared with the Bank and left for their signature (all signatures were completed by July).

A description of the DR long-term professional position was released through Affirmative Action channels. The position selection committee recommended an offer be extended to Thomas Dickey, and he accepted the offer, effective July 15, 1979. A CSU overseas employment agreement was prepared which specified the responsibilities and benefits associated with the assignment. Mr. Dickey began work in the DR the latter part of July 1979 and returned to the States in August 1981. (See Appendix D--Tour Report.)

The project worked directly with the Agriculture Bank but also was in liason with the Secretariat of Agriculture and USAID/Santo Domingo.

As is apparent, the major problem associated with project implementation has been in identifying and finalizing agreements with the second developing country. The activities related to this effort are summarized in a chronological notebook with documentation which has been prepared and for which major items are listed in Appendix B.

A final event directly affecting the implementation of the Credit Project in the DR was Hurricane David which crossed the country on August 31, 1979. The clean-up and emergency reconstruction activities dominated the Bank operations the first few months of the project and slowed down collaborative development of project plans and activities.

Accomplishments

This section will briefly review activities and accomplishments over the life of the project. For presentation, this section will be divided into four major parts: (1) Literature review and dissemination

activities, (2) The enterprise budget system, (3) the farm record-keeping experiment, and (4) other activities. For additional detail the reader should consult the specific reports covering each topic as indicated in the text.

1. Literature Review and Dissemination

An annotated "Small Farm Credit Data Collection and Analysis Bibliography" was distributed as Occasional Paper Series on Credit No. 1 in November 1979. The literature search on small farm credit data collection and analysis methodologies found that very little specific research has been implemented on credit data per se. Although a number of references have been identified which cover various approaches to collecting farm-level data in developing countries for policy analysis or descriptive studies, very few of them focus on operational data needs for a credit institution. The available literature on small farm data collection in developing countries is limited primarily to Africa and the Middle Eastern countries. A few studies are now being released in Southeast Asia. Relatively little credit research is available in Latin America, which is surprising, considering the number of credit programs and services which exist (or have existed) in that area.

Occasional Paper No. 2, entitled "Investigaciones sobre la Recoleccion de Datos de Costos de Produccion en la Republica Dominicana" by J. D. Longwell was released in July 1980. This paper summarizes a report made by Mr. Longwell to the Dominican Agricultural Bank concerning preliminary research results on alternative methods of collecting rice production cost data for use by the Bank. This research was part of the Credit Project activities in the DR.

A third Occasional Paper, "Metodologia de Costos de Produccion" by Thomas Dickey, summarizes the cost of production methodology being jointly implemented by the Bank, the Rural Administration Division, Secretariat of Agriculture (SEA), and the Credit Project. The paper presents general procedures for gathering cost data, the land and technology classification system, criteria for specifying crops on which to prepare budgets, and interviewing procedures. A number of other policy position papers, data sheets, and similar material were produced by Dr. Dickey for internal use of the Agricultural Bank in the DR.

Occasional Paper Series on Credit No. 4, "Analysis of Three Methodologies for Collecting Data from Small Farmers in the Dominican Republic," by J. D. Longwell was released in January 1981. This paper was a summary of an M. S. thesis of Longwell by the same title. An alternative data collection model was tested in the Dominican Republic using rice cost-of-production data for small farmers in the Cibao Valley. The accuracy of three methodologies were tested: (1) the estimation of production costs by an Agricultural Bank credit agent, (2) data from a purposive sample of five farmers chosen by the credit agent, and (3) data from a random sample of 30 farmers. The results of the analysis support the hypothesis that credit agents' estimations of

production costs (widely followed in developing countries) vary significantly from data provided by farmers based on their own farming operations.

In cooperation with Loren Parks at OSU, Dr. Tinnermeier jointly authored an OSU International Development Series report (IDS No. 80-5) entitled "Production Loans to Groups of Farms: Experiments in Honduras." This report summarized the project experiences with small farmer group loans in Honduras in light of the potential advantages of group lending.

A revised version of this paper also was presented at the Symposium of the International Geographical Union entitled "Rural Development: Theory and Practice," California State University, Fresno, April 23-25, 1981.

Other activities not directly funded by the Credit Project but which are complementary to building a knowledge base of use to the project include:

--Ronald Tinnermeier, "Rural Financial Markets--A critical Problem Area," Savings and Development, Milan, Italy, No. 3--1977-I.

--Jerry Ladman and Ronald Tinnermeier, "Credit Policies and Rural Financial Markets in Bolivia," American Journal of Agricultural Economics, Vol. 59, No. 5, December 1977.

--Jerry Ladman and Ronald Tinnermeier, "Credit Policies and Rural Financial Markets in Bolivia," Nobiyuku Nogyo, Tokyo, No. 532, 1978.

--Claudio Gonzalez-Vega and Ronald Tinnermeier, INVIERNO: Innovation in Credit and Rural Development, Occasional Paper No. 8, Economic and Sector Planning Division, Agency for International Development, July 1979.

--Jerry Ladman and Ronald Tinnermeier, "A Model of the Political Economy of Agricultural Credit: The Case of Bolivia," paper presented at Second International Conference on Rural Finance Research Issues, August 29 - September 1, 1979, Calgary, Alberta, Canada.

--Claudio Gonzalez-Vega and Ronald Tinnermeier, "Innovative Small Farmer Credit in Nicaragua," paper presented at Second International Conference on Rural Finance Research Issues, August 29 - September 1, 1979, Calgary, Alberta, Canada.

--Jerry Ladman and Ronald Tinnermeier, "A Model of the Political Economy of Agricultural Credit: The Case of Bolivia," American Journal of Agricultural Economics, Vol. 63, No. 1, February 1981.

--Master's thesis by Ramon Alcachupas, Philippines, entitled "An Economic Analysis of Masagana 99 Farm Record-Keeping Data: Iloilo, Philippines," fall, 1980.

--Master's professional paper by Sayed Abdul Hye, "Agricultural Development--The Case of Bangladesh and a Strategy for It," September 1980. This paper includes a section on credit for small farm development.

--Melvin Skold and Ronald Tinnermeier, "The Role of Land Grant Universities in the Process of International Development," paper presented to workshop on CSU's Role in International Development Process Through International Education, Research and Technical Assistance Programs, Fort Collins, Colorado, January 16-18, 1980.

2. Enterprise Budget System

An interinstitutional system for enterprise budgets was designed and implemented by the Bank and the Secretariat of Agriculture's (SEA) Farm Management Division. Under this system, the SEA had overall responsibility for the budgets, and Bank credit agents performed some of the data-gathering small farmer interviews.

SEA and Bank employees in each region specified crop, technology characteristics and area of applicability of the budgets to be prepared. Each budget was assigned to one of the SEA employees and he became responsible for seeing that the interviews were performed and for preparing the budget. Draft budgets were reviewed by the Regional Farm Management specialist.

The SEA and Bank employees must have found at least five farmers that produced the crop with the specified technological characteristics in the specified area. The interviews were conducted using an open-ended approach in which the interviewer asks "and what did you do next?" For each reported activity, complete information was obtained, including data on related purchases, rentals, etc.

The technology characteristics were categorized as follows: (a) planting (direct or transplant), (b) origin of water (dryland, irrigated, etc.), (c) input use level (none to high), (d) land preparation (none, manual, animal, mechanized), (e) land capability class (I to IV), and (f) special characteristics (open ended).

The current methodology covers variable costs for annual crops planted alone. The methodology will be expanded to cover fixed costs, perennial crops and intercropping only after the current methodology has been successfully mastered by the SEA and Bank employees.

In the Dominican Republic, a total of 101 crop enterprise budgets were prepared during the project period based on farmer interviews. The crop budgets prepared in each of the eight regions are included in Occasional Paper No. 5. These budgets represent the major crops financed in all of the regions. The exact technology/land class package reflected in each of the budgets was jointly determined by Bank agents and SEA Farm Management specialists working in the region in question. Details on the procedures and methods used in producing these budgets can be found in Dickey, et al (Occasional Paper No. 6).

These enterprise budgets were eagerly received by Bank and government personnel as well as by other groups. A large number of copies (1,000)

of the budgets were published and distributed by the Secretariat of Agriculture in 1981. Budgets were distributed to Bank credit agents in each region as well as to the regional farm management technicians with the Secretariat of Agriculture.

Ultimately, it is expected that the loan evaluation process in the Bank will use one of these standard budgets directly and eliminate the custom-made (individual) budgets for each client. Although the enterprise budgeting system had not yet been integrated into the Bank's operations when the project ended, one would expect it to operate in the following manner.

The loan officer or credit agent would interview the prospective borrower and select a standard budget which most closely represented his situation. If his costs were determined to differ significantly from those in the standard budget, then adjustments would be made, perhaps in a blank right-hand column on the budget available for that purpose. If the differences were small, then the credit agent would simply use the standard budget numbers to calculate expected farm credit needs and loan repayment capacity in accordance with Bank policy.

By the end of the project, other uses of the budgets were apparent. Budgets were used repeatedly in training courses. Various individuals and groups requested budgets even before they were completed. International donors also were requesting budgets to use in their analysis of project and loan proposals. For a general summary and evaluation of the enterprise budget system and the farm record-keeping activities, one should refer to Occasional Paper No. 7, entitled "Collection of Farm Production Data for Credit Programs in Developing Countries."

3. Farm Record-Keeping Experiment

Farm records are widely used in the developed countries as a source of data for farm and sector analysis and for evaluating loan applications of farmers. A complete farm record is a history of a farmer's operation which provides data on production costs and returns, input use, production output, changes in inventories and resources, and levels of efficiency and on his financial position, among other things. Income, net worth, and cash flow statements are commonly prepared from such records. Strong reasons for maintaining farm records in the developed countries are to provide data for preparing required income tax returns and to justify loan requests. Most lenders now require financial statements when evaluating loan applications. These incentives for record keeping do not exist in most developing countries, especially for small farmers. Thus, farm record keeping is not commonly found in developing countries.

The Dominican record book activity was designed to test alternative methodologies for using record books as a device for collecting data on small farm operations. For agricultural development banks, the two most promising uses of farm record keeping in the near future will be: (1) to provide an alternative data source for enterprise budgets, and (2) to provide semi-organized situations in which desk-bound Bank officials can

learn how bank policies affect the borrowers. Farm record keeping is too expensive, at this point in time, to be the primary source of data for enterprise budgets. However, a small-scale record-keeping activity can be used as a source of data for judging the validity of budgets prepared with single-visit interview data. This was the primary purpose for keeping farm records in the Dominican Republic.

The Dominican record-keeping activity built on the results of the Honduran experience. Farm records were established with ten farmers in Nizao, a diversified horticultural area near the coast about 35 miles southwest of Santo Domingo. A local girl, a student of journalism at a university in Santo Domingo, was hired to visit each farmer at least once a week to record all their activities, incomes and expenses. These records were kept for over one complete crop cycle. No attempt was made to maintain complete farm records in the Dominican Republic since the Honduran experience suggested farmers and the Bank were less interested in that type of information.

The first version of the record book for the Dominican Republic organized the common entries as follows. First, all transactions or activities that involved an input or product were entered. These included purchases, sales, use of stored items, losses, gifts given or received, etc. Each entry specified the item, origin, destination, quality, price and value. The origin entries specified where the item came from (purchases, storeroom, enterprise) and the destination entries specified the disposition or use of the item (sales, losses, gifts, enterprise). Secondly, all work activities (manual or mechanical, hired or own) were entered, using separate columns for each enterprise. This organization proved to be susceptible to incomplete data entry because many activities involved product or input movement and the interviewer would have to flip back and forth between sections of the book. For example, the harvest of a crop involves labor and transportation (activities) and sales and purchase of sacks (products and inputs). These problems of incomplete entry were encountered through our policy of preparing income and expense summaries for each enterprise as soon as possible after the harvest.

The second version of the record book organized the common entries by enterprise. This allowed all common entries for an enterprise to be placed together on a single page. This facilitated the interview/data entry process in that the concentration of the interviewer was not interrupted by the need to flip back and forth between sections of the book. When the interviewer's concentration is not interrupted, he/she will be more likely to recognize that information is missing and to request it.

The farm record books in the Dominican Republic were maintained primarily as a complementary source of data for preparing crop enterprise budgets. A total of 48 enterprise budgets were produced from the records of ten farmers in the Nizao area (for detail see Occasional Paper No. 8, "An Experiment with Farm Record Keeping in the Dominican Republic").

4. Other Credit Project Activities

A number of other activities were carried out during the two-year period of the Credit Project which were either directly associated with the data collection activities or with general credit policies of the Bank.

The analysis of the effects of the Bank's credit policies and procedures, using the data collected under project-generated systems or others, requires accurate knowledge of what the policies are and of the uniformity of compliance with the current policies in all bank offices. It is for this reason that the project undertook, with direct Bank assistance, the task of compiling a Credit Policies and Procedures Manual.

Bank policies are made known to the Bank employees through an assortment of memorandums and directives. The lack of an organized manual has resulted in the nonuniform knowledge of policies by the large numbers of employees. Consequently, most of the policies, many of which date back ten or twenty years, have been passed by word-of-mouth and constitute a tradition rather than a coherent set of policies. Most of the directives amend or modify previous directives rather than present a complete version of the new policy, as amended.

The Bank assigned three employees to work under the direction of the Project staff in searching Bank files for all documentable policies that are in force. This stage was completed in August of 1980. A draft of the policies section of the Manual has now been completed and was submitted to the Bank. A second, and unexpected, step that was needed was the incorporation of de facto changes that have occurred due to the normal process of oral "clarification" of the written directives. The Policies Manual was being further revised by the Bank at the end of the Credit Project.

A particular Bank policy that merited attention was the Client Classification System. The system was first implemented in 1968 and has had little impact on bank-lending procedures. An effective Client Classification System would greatly facilitate the utilization of the enterprise budgets in the loan-granting process. The system that was recommended by the project and is under consideration by the Bank, relies solely on a client's repayment record for determining his classification. The number and type of agent visits/inspections would be determined according to the client's classification and the percentage increase in loan value that the client is requesting, if the enterprise is similar to the ones previously financed. The on-farm inspection that is now required before the loan can be approved would be eliminated for good clients that are requesting small increases for similar enterprises. This change would speed the loan approval and initial disbursements and should contribute to the promptness of repayments when the clients learn that prompt repayment is rewarded with faster service in the future. With the need for the prior inspection eliminated, and the use of standardized budgets/investment plans, it would become possible for a good client

to walk into the bank office, make his loan request and walk out with the initial disbursement.

Early in the project a Credit Files Study was designed with several objectives. First, we wanted to learn how the loan forms were used in the daily operations of the Branch Office. Secondly, we wished to obtain data on loan applications (amounts and purposes), loan approvals (amounts, purposes and terms) and actual loan disbursements and payments. Thirdly, by reading and noting the essence of all farm visits, we wanted to find how the loans were administered and supervised.

We obtained a list of all rice loans made by the Bani Branch between September of 1978 and August of 1979 (141 in total) and randomly selected 50 of these loans. For each client, we also reviewed the files on the loans he had since 1976 (up to three). In the process, we learned a great deal about the procedures and paperwork involved in processing small loans. We thus obtained a good number of examples that we could cite in our discussions of general or specific credit policies with bank officials.

Eight three-day formal training courses on the methodology and administration of the budgets system were given between May and July of 1980. The attendance in each course is summarized in the following table:

<u>Region</u>	<u>SEA-Farm Mgmt.</u>	<u>Bank Agents</u>	<u>Others</u>	<u>Total</u>
North	5	8	-	13
Northeast	5	10	-	15
Northwest	4	8	-	12
Central	6	8	3	17
Southwest	4	7	9	20
South	4	4	-	8
East	5	9	3	17
North central	<u>4</u>	<u>6</u>	<u>-</u>	<u>10</u>
TOTALS	37	60	15	112

In each course, the operation of the system and methodology were discussed in detail, practice interviews were performed using farmers in nearby areas, a practice tabulation was done using the data from the practice interviews and plans were made for preparing the budgets. The planning included specification of budgets, responsibilities and deadlines.

Informal training took place throughout the life of the project. Credit Project staff visited each of the eight regions a number of times to provide more training in the process of data tabulation and budget preparation, and to provide follow-up encouragement and supervision in the entire budgets and farm record-keeping system. Continual training of Bank counterparts and employees also was involved in the project since the project staff were physically located in the Bank and interacted with Bank personnel on a day-to-day basis.

A loan delinquency study was initiated in November 1980, when it appeared further work on the policy manual and on other internal operational questions would not be warranted or feasible through the end of the project (September 1981). The delinquency study objectives were to: (1) describe the principal characteristics of the Bank loans and borrowers, and (2) identify the relationships between borrower characteristics and loan repayment (or delinquency). It was felt such a study could provide further insights on how the Bank could resolve its serious delinquency problem.

In March 1981, preparations were made for collecting the data. A sample of 2,075 loans for about 1,060 borrowers formalized during the period of July 1977 to June 1980 (three years) was obtained. The Bank administrator authorized the use of six Bank employees for two weeks to help gather data on these sample loans from the field offices. Also, three agricultural students of the Instituto Superior de Agricultura (ISA) in Santiago participated in the field work for collecting the data. This project paid their expenses and a daily stipend of \$10. Two of these students are beginning their theses (senior paper) on topics for which the data can be used. A (now former) Bank employee that was assigned to the data collection activity will write his thesis using the data. This individual is an economics student at a university in Santo Domingo.

Due to the need for determining delinquency status (and other assorted information) from the transactions record and due date(s), as modified by extensions, for each loan, it was necessary to write specialized computer programs to read each case, perform this analysis and place the resulting data record on a file that could be used as input for the statistical analysis programs. The Bank obtained the Fortran compiler for its IBM 370/115 so that these programs could be run.

Field delinquency data collection was completed in April 1981, and data were coded for placing on computer tapes and for analysis. Unfortunately, the Bank computer was inoperative on and off for the remainder of the project so analysis of the delinquency data was not possible before the project terminated. However, even with the computer delays it was possible to get the data on magnetic tapes ready for analysis. One copy was left in the Dominican Republic and a copy was sent to CSU. A detailed listing of the codes and the type of data on the tape is shown in Appendix C. Preliminary contacts have been made with AID, the World Bank and the Interamerican Development Bank to obtain additional funding to complete the analysis of the delinquency data.

During spring semester 1978, a graduate-level Seminar on Agricultural Credit, with special reference to data collection and analysis problems, was used as a coordinating device for staff and students associated with the Credit Project and as a means of exposing other foreign students to the problems of extending agricultural credit to small farmers in developing countries. The seminar operated under the leadership of Dr. Tinnermeier. In addition to the required readings for the seminar, students who wished to obtain three hours of credit were required to prepare a term paper on some aspect of small farm credit. Participants in the seminar included

(with paper title where appropriate):

- J. D. Longwell (USA), "Some Aspects of Data Collection for Credit Programs in LDCs."
- Hernan Pineda (Honduras), "Role of the Institutions of Agricultural Credit for Small Farmers."
- Ramon Alcachupas (Philippines), "Role of Agricultural Credit in the Context of Government Agricultural Development Policy, Goals, Including Role in Assisting the Food Self-Sufficiency Program in the Philippines."
- David Riungu (Kenya), "Crop Insurance in Developing Countries with Special Reference to Kenya."
- Tom Tuoane (Lesotho), "The Role of Technology in Small-Farmer Credit-- The Case of Developing Countries."
- Feliciano Cruz (Philippines), "Credit Program Monitoring and Evaluation."

Other seminar participants included:

- Jose Barrios (Panama)
- Celimo Cordoba (Colombia)
- Patricia Graham (USA)
- Eugene Rauch (USA)
- Jose Verdin (Mexico)

Budget Allocations and Expenditures

The expenditures for the four years of the project and the budget for the fourth, and final year, are shown in Table 1. The project began on September 26, 1977 and was completed on September 30, 1981. Detailed expenditure information for years I, II and III was presented in earlier reports and will not be repeated here.

For year IV, the total expenditures were equal to that budgeted as shown in Table 1. In fact, expenditures for reproducing the final four occasional papers were assumed by the Economics Department making CSU's cost contribution larger than that originally budgeted. The total of \$400,329 reported in Table 1 is the maximum that can be charged AID as specified in the Cooperative Agreement.

The salary expenditures for year IV were some 10 percent higher than that anticipated at the beginning of the last fiscal year (October 1). This resulted from a slightly different mix of staff on campus as well as between campus and overseas. For example, an additional partial month of on-campus funding was added to help cover costs of producing the final project reports. Reduced expenditures for travel and other direct expenses covered the increased salary support. The "other direct cost" category shows a significant reduction due to: (1) workman's compensation rates were reduced, during the year, and (2) computer and in-country interviewing costs were less than anticipated.

Table 1. CSU CREDIT PROJECT EXPENDITURES AND BUDGET
September 26, 1977 - September 30, 1981

	Year I ^a Expenditures	II Expend.	III Expend.	IV Budget ^b	IV Expend. ^c	Total
Salaries						
Campus	\$26,443	\$33,734	\$ 20,946	\$ 26,650	\$ 35,862	\$116,985
Off-campus	- -	5,062	39,558	35,190	31,698	76,318
	26,443	38,796	60,504	61,840	\$ 67,560	\$193,303
<u>Fringe Benefits</u>	2,115	3,570	6,013	8,215	10,357	22,055
<u>Travel & Trans.</u>	8,984	11,684	7,731	15,000	12,600	40,999
<u>Allowances</u>	-0-	5,015	7,200	8,200	7,689	19,904
<u>Equip. & Supplies</u>	1,124	10,343	2,383	1,500	1,405	15,255
<u>Other Direct Costs</u>	961	1,830	6,153	13,091	5,599	14,543
<u>Indirect Costs</u>	18,563	23,813	23,017	26,441	28,877	94,270
	\$58,190	\$95,051	\$113,001	\$134,087	\$134,087	\$400,329

^a Year I includes period 9/26/77 - 9/30/78. All other years are October 1 to September 30 of following year.

^b Calculated on basis of remaining balance of AID contribution of \$400,329 for the life of the project. Total project budget included an additional estimated \$16,400 indirect cost contribution of CSU.

^c These are estimates of expenditures by line item. Some adjustments are in process for indirect costs which may change these figures in the final reimbursement reports submitted to AID by the Accounting Office.

Professional and Staff Personnel

A breakdown of professional and other staff participating in the Credit Project during the four years is shown in Table 2. Approximately 14 more person-months of professional and staff resources were used in the project than was budgeted. The additional input of human resources reflects the higher expenditures made on salaries as shown in Table 1. Considerably more support was allocated to the overseas portion of the project (three man-months for the resident professional and about ten man-months for support staff). Also, about three additional man-months were associated with project administration, although this is a rather arbitrary division of staff resources between administration and professional work for the project.

Table 2. PROFESSIONAL AND STAFF PERSON-MONTHS ALLOCATED TO CREDIT PROJECT

Activity Areas & Staff	Person-Months				Proj. Total	Total Budgeted ^a
	Year I	II	III	IV		
<u>Project Administration</u>						
Nobe, K. C. (Manager)		1.5	1.28	1.17	3.95	4.5
Tinnermeier, R. (Coordinator)	3.31	2.5	2.00	2.00	9.81	4.5
Secretary	-	3.0	-	2.21	5.21	7.0
	<u>3.31</u>	<u>7.0</u>	<u>3.28</u>	<u>5.38</u>	<u>18.97</u>	<u>16.0</u>
<u>Professional Staff</u>						
Campus						
Tinnermeier, R.	5.00	5.0	4.04	6.43		
Spencer, W.	.55					
Williams, S.	.88					
Sparling, E.		1.5				
	<u>6.43</u>	<u>6.5</u>	<u>4.04</u>	<u>6.43</u>	<u>23.40</u>	<u>26.0</u>
Off campus						
Dickey, T.		2.5	12.0	11.0	25.50	22.0
<u>Support Staff</u>						
GRAs	4.50	8.0	10.50	2.00	25.00	15.0
	<u>14.24</u>	<u>24.0</u>	<u>29.82</u>	<u>24.81</u>	<u>92.91</u>	<u>79.0</u>

^a As amended August 3, 1979

In summary, the provision to the Credit Project of CSU professional and other staff exceeded that envisioned in the Cooperative Agreement. Slightly more expenditures were made over that budgeted, the balance of which will be absorbed by CSU. Even with the considerable time delay in implementing the Credit Project in the second developing country, the one-year extension permitted the accomplishment of the major objectives set out by the Cooperative Agreement and other documents. The project demonstrated that accurate and reliable enterprise budgets and farm records can be produced in a developing country in a cost-effective manner. Additional time and support would be needed to assure that the data collection systems are integrated and supported by the participating institutions over time.

Appendix ACSU Credit Project Occasional Papers

1. Tinnermeier, R. L. and J. D. Longwell, "An Annotated Bibliography on Small Farm Data Collection and Analysis Methodologies," Occasional Paper Series on Credit No. 1, Department of Economics, CSU, November 1979.
2. Longwell, J. D., "Investigaciones sobre la Recoleccion de Datos de Costos de Producción en la Republica Dominicana," Occasional Paper Series on Credit No. 2, Department of Economics, CSU and Banco Agricola, Santo Domingo, Junio 1980.
3. Dickey, Thomas, "Metodologia de Costos de Producción," Occasional Paper Series on Credit No. 3, Department of Economics, CSU and Banco Agricola, Santo Domingo, Mayo 1980.
4. Longwell, J. D., "Analysis of Three Methodologies for Collecting Data from Small Farmers in the Dominican Republic," Occasional Paper Series on Credit No. 4, Department of Economics, CSU, January 1981.
5. Dickey, Thomas, et al., "Costos de Producción de Cultivos Temperoros-- 1980," Occasional Paper Series on Credit No. 5, Department of Economics, CSU, April 1981.
6. Dickey, Thomas and R. L. Tinnermeier, "Developing Farm Enterprise Budgets: An Experiment in the Dominican Republic," Occasional Paper Series on Credit No. 6, Department of Economics, CSU, September 1981.
7. Tinnermeier, R. L., et al., "Collection of Farm Production Data for Credit Programs in Developing Countries," Occasional Paper Series on Credit No. 7, Department of Economics, CSU, November 1981.
8. Tinnermeier, R. L. and Thomas Dickey, "An Experiment with Farm Record Keeping in the Dominican Republic," Occasional Paper Series on Credit No. 8, Department of Economics, CSU, November 1981.

CSU Administrative Reports

1. Administrative Report #1 for the Small Farm Credit Profitability and Repayment Project, September 26, 1977 - September 30, 1978, Department of Economics, Colorado State University, Fort Collins, October 1978. With K. C. Nobe.

2. Administrative Report #2 for the Small Farm Credit Profitability and Repayment Project, October 1, 1978 - September 30, 1979, Department of Economics, Colorado State University, Fort Collins, October 1979. With K. C. Nobe.
3. Administrative Report #3 for the Small Farm Credit Profitability and Repayment Project, October 1, 1979 - September 30, 1980, Department of Economics, Colorado State University, Fort Collins, October 1980. With T. Dickey and K. C. Nobe.
4. Final Administrative Report for the Small Farm Credit Profitability and Repayment Project, September 26, 1977 - September 30, 1981, Department of Economics, Colorado State University, Fort Collins, December 1981. With T. Dickey and K. C. Nobe.

Appendix B

CHRONOLOGY OF EVENTS AND
DOCUMENTATION LEADING TO CSU'S
PARTICIPATION AND RESPONSIBILITY FOR THE SMALL
FARM CREDIT PROFITABILITY AND REPAYMENT PROJECT
(CO-AG No. AID/ta-CA-3)

Compiled by
Ronald L. Tinnermeier
Project Coordinator

Department of Economics
Colorado State University

LIST OF ITEMS*

(Small Farm Credit Profitability and Repayment Project
hereafter referred to as Credit Project)

1. September 1, 1976: Basic Memorandum of Agreement signed with AID under Expanded Program of Economic Analysis for Agricultural and Rural Sector Planning (AID/ta-BMA-6). This document was the basic agreement which allowed for the development of specifically funded cooperative Agreements for the Credit Project (also used for the CSU Lesotho Agricultural Sector Analysis Project).
2. May 1, 1977: Cooperative Agreement (AID/ta-CA-2) signed with TA/AG/ESP to acquire the services of R.L. Tinnermeier to discuss and develop the design and implementation plan for a proposed Small Farmer Credit study to be funded under the Expanded Program. Project projected through December 1977.
3. May 18-21, 1977: R.L. Tinnermeier and Anne Ferguson ESP/AID/Washington Traveled to Honduras to explore feasibility of locating Credit Project in that country. Travel was funded under AID/ta-CA-2. USAID and National Development Bank (BNF) expressed interest in moving ahead on the project.
4. July 14, 1977: AID Request for Proposal from CSU to enter into three year Cooperative Agreement on developing data collection and analysis methodologies which credit institutions in LDC can use.
5. July-September, 1977: CSU proposal submitted July 27 for total budget of \$560,907. Letters of August 19 (Frantz to Perelli, AID) and August 23 (Perelli to Frantz) refer to budget negotiations.
6. August 16-26, 1977: Trip to Philippines to explore locating credit project in that country. R.L. Tinnermeier and Odell Walker (Oklahoma State University) met Anne Ferguson AID/Washington in Manila for project discussions. USAID/Manila and Farm Systems Development Corporation (FSDC) wished to proceed with the Credit Project and a draft Memorandum of Understanding was prepared and discussed with USAID, FSDC and the Technical Board for Agricultural Credit (TBAC).
7. September-November, 1977: Project Management Committee formed to coordinate CSU-OSU activities and a CSU-OSU Memorandum of Understanding was prepared and signed.
8. September, 1977: Letters to FSDC (Sept. 8), TBAC (Sept. 13) and Ferguson (Sept. 16) assumed project moving ahead based on telephone conversation with Anne Ferguson. Proposed visit of FSDC and TBAC representatives to U.S. understood to be paid by USAID/Manila.

* Items underlined are those included in the documentation notebook.

9. September 26, 1977: Cooperative Agreement AID/ta-CA-3 finalized with a budget of \$478,581 assuming CSU would handle long-term advisor in Philippines. Oklahoma State University also signed a Coop-Ag. for \$331,000 with responsibility for placing advisor in Honduras. R.L. Tinnermeier given overall coordinator responsibility for project including the two country programs.
10. September 21, 1978: Tentative timetable for Credit Project prepared.
11. October-November, 1977: USAID/Manila requested, via AID/Washington, that CSU-OSU pay for travel to U.S. of Meli Agabin (TBAC) and per diem costs of Jac Jacolbe (FSDC). CSU telex of Oct. 14 proposed schedule for visitors. USAID/Manila cable via Washington of Oct. 17 specified trip objectives and financial support requested. CSU telex of November 3 notified prepaid ticket had been sent for Agabin and that OSU would pay per diem for Jacolbe. AID/Washington approval for paying invitational travel received (letters from V.C. Perelli, Nov. 8, 1977). USAID/Manila cable via Washington suggested visit may be delayed. Schedule with CSU, OSU and outside credit agencies had already been set up and were cancelled.
12. November 13-18, 1977: Travel to Honduras by Dan Badger and R.L. Tinnermeier to develop project arrangements with the National Development Bank (BNF) as summarized in the attached clearances and trip report. Accompanied by Erhardt Rupprecht, AID/Washington. Draft Memorandum of Understanding prepared and discussed with USAID and BNF.
13. November 19-December 17, 1977: After considerable delay and confusion, two of the three scheduled visitors from the Philippines arrived without notification on November 19th. A tentative schedule for their visit had been cancelled due to the delay. Meetings were rescheduled with difficulty due to their delayed visit falling over the Thanksgiving break. A revised Memorandum of Understanding was prepared on November 20-21 with OSU participation. Jac Jacolbe arrived November 25 and the group departed for OSU on the 29th. The PIO/T and trip report of Galoso outline activities during their visit.
14. December, 1977: January Philippines trip for Bill Spencer and Simon Williams proposed and clearances received.
15. January 21-31, 1978: Bill Spencer and Simon Williams joined Erhardt Rupprecht in Manila to finalize agreements with FSDC. Some difficulties were encountered as reflected in their trip report. A newly revised Memo of Understanding and work timetable wasn't signed by their departure date and the naming of a Filipino as the long-term technician was raised as an issue. Rupprecht letter of February 2 summarized his view of the problem areas.
16. February 5-18, 1978: Honduras trip report summarizes visit of Dan Badger, Loren Parks, Harry Mapp, Jr., and Odell Walker from OSU and Ron Tinnermeier from CSU. Agreements were finalized and proposed project activities were discussed.
17. March, 1978: Honduras Memorandum of Understanding signed by all parties and Project Agreement between USAID and BNF signed.

18. April 13-14, 1978: R. Tinnermeier traveled to Stillwater, Oklahoma to discuss project activities in Honduras with OSU staff. Tentative Work Plan resulted from that meeting and from previous discussions. A copy was sent to the BNF for their response.
19. February-June, 1978: Discussions continued with Philippines to finalize Memorandum of Understanding. Concern raised about significance of delay for project through February 24 letter from Bill Merrill, TA/AG/ESP to USAID/Manila: March 8 letter from R. Tinnermeier to FSDC; ESP March 30 cable to USAID/Manila; and various telephone calls. No written response was received by CSU or OSU from the Philippines.
20. June 6-9, 1978: R. Tinnermeier traveled to AID/Washington to discuss the Filipino delay and alternative strategies. Informal contacts were made with AID Regional Bureaus to identify possible alternative countries. After considering a number of countries, it was agreed that the credit project should shift from the Philippines to Nicaragua if it was possible before the end of this fiscal year. A June 21 memo to K.C. Nobe summarized the rationale for initiating contacts in Nicaragua. A June 19 letter from Tinnermeier to David Bathrick, USAID/Managua, outlined a tentative plan of work in Nicaragua with the Institute for Compesino Development (Instituto de Bienestar Compesino--INVIERNO).
21. July 18-23, 1978: Ron Tinnermeier traveled to Nicaragua to join Dan Badger(OSU) in discussions about locating the Credit Project in that country. A Memorandum of Understanding was signed by Gustavo Gomez-Casco, General Manager of INVIERNO. The document was hand carried to the States for signatures at CSU and OSU. A draft Project Agreement was left for finalizing between USAID and INVIERNO.
The trip included a two-day stop in Honduras to discuss project activities with BNF. Loren Parks is well settled as the long-term project technician. Discussions are progressing on the development of a more detailed scope of work. The trip accomplishments in Nicaragua and Honduras are summarized in the Trip Report.
22. August 1, 1978: Announcement for Nicaragua position released through Affirmative Action Program of CSU. Applications received by September 1, 1978 will be considered first or later applications will be considered until an acceptable candidate is identified.
23. August 9, 1978: Notification sent to FSDC by letter on the shift of project to Nicaragua. Future collaboration with the Philippines is welcomed subject to a stronger expression of interest from them and to the availability of AID funding for a third country. August 19 letter to TBAC also indicates changes in the project.

24. August 25, 1978: Nicaraguan Memorandum of Understanding finalized and sent to INVIERNO. Reception verified by Gomez letter of September 6, 1978.
25. September 1978: Eligible applicant in response to Nicaraguan field party position announcement identified by the Economics Department Selection Committee along with a request to the CSU Affirmative Action Office for approval to proceed to interview for the position.
26. Civil conflict in Nicaragua during the fall made implementation of project in Nicaragua impossible. Discussions were held with AID/Washington to determine alternatives.
27. December 6-14, 1978: Karen Wiese, AID/W and R. Tinnermeier traveled to Honduras and the Dominican Republic. Progress of the project in the BNF was discussed. The Dominican leg of the trip was to attend the Credit Seminar sponsored by the Central Bank, USAID/Honduras, and Ohio State University and to initiate discussions on locating the project in the DR due to the problems in Nicaragua. The response was positive and potential DR institutions included the Dominican Development Foundation and the Agricultural Bank. Details of the visit are in the trip report.
28. March 14-27, 1979: Odell Walker (OSU) and Ron Tinnermeier traveled to the DR to obtain agreement on locating the Credit Project there. The Agricultural Bank was agreed to and a proposed Memorandum of Understanding was left with the Bank and USAID. USAID indicated no logistical support could be provided due to a personnel freeze. See trip report for details.
29. Position Description No. 79-6 released March 1, 1979 for DR position through affirmative action procedures. Selection committee recommended Thomas Dickey (see personal vita), an offer was made June 4, 1979, and Mr. Dickey accepted the position effective July 15, 1979. An Overseas Employment Agreement was then prepared and signed.
30. June 25-30, 1979: Trip to DR by Thomas Dickey and Ronald Tinnermeier to finalize agreement with Ag Bank and to introduce Mr. Dickey as the proposed long-term technician. USAID and Ag Bank clearances were obtained for Dickey and J. D. Longwell to locate in the DR. The Memorandum of Understanding was left for signatures. Trip report and clearances attached.
31. J. D. Longwell and wife, Mary Ann, cleared by USAID to arrive in DR on July 15, 1979. He was expected to spend eight to ten months on research for his M.S. on data collection and analysis.
32. Clearance for Dickey arrival in DR on or about July 23, 1979 obtained from USAID and Bank.
33. July 6, 1979: All signatures obtained for Memorandum of Understanding with Ag Bank, OSU, and CSU.

34. July 29, 1979: Project Management Committee met at Pullman, Washington in conjunction with AAEA meetings. Past activities were reviewed and general plans were made for the upcoming year. Minutes attached.
35. Visit of Dr. Dickey to Honduras September 16 - 20, 1979 to observe Project activities and accomplishments. Trip report submitted after visit.
36. Visit of Loren Parks and R. Tinnermeier to the Dominican Republic, October 14 - 18, 1979. Trip was to discuss and help design a plan of work for the Dominican Republic portion of the Project. Trip report by Dr. Tinnermeier attached. Dr. Parks submitted his report through Oklahoma State University.
37. October 25, 1979: Plan of Work for the Dominican Republic was submitted to AID/W, USAID, and Bank in English and Spanish.
38. Visit to Dominican Republic by D. Schreiner and Mike Hardin (OSU), R. Tinnermeier (CSU) and Karen Wiese (AID/W) to review Project activities. Trip report for Tinnermeier attached. Also see separate OSU trip report.
39. Plan of Work approved by Banco Agricola 22 February 1980.
40. Visit to Honduras by R. Tinnermeier, March 11 - 19, 1980 to observe field activities with farmer borrower groups and to review other Project activities. See trip report.
41. Visit to Dominican Republic by R. Tinnermeier, May 18 - 28, 1980 to: attend a field training session, review research by Longwell, and review general progress of Project. See trip report.
42. September 10 - 12, 1980. Project Management Committee met at Stillwater. Past activities were reviewed and future work in the Dominican Republic was discussed. See Agenda and list of participants. OSU team distributed end of Project administrative and technical reports.
43. Visit to the DR by Ronald Tinnermeier, K. C. Nobe and Ralph Hanson (AID/W) February 4-14, 1981. Purpose was to review project and discuss project completion. Visits were made to farmers with records, a Rural Administration field team preparing enterprise budgets, to USAID, and ISA (National Agricultural University in Santiago). See Trip Report.
44. Completion of Credit Project in the Dominican Republic. See End of Tour Report by Dr. Thomas Dickey for the period July 22, 1980 to August 31, 1981.
45. September 31, 1981, Termination Date for CSU Cooperative Agreement as amended. See Final Administrative Report, November 1981.
46. Project Review and Evaluation by AID/W, December 7-11, 1981. See Tentative Agenda.

C O D E B O O K

Statistics File for a Random Sample of 1081 Clients of the Agricultural Bank of the Dominican Republic and their Loans Authorized between July of 1977 and June of 1980. There are a total of 2,078 loans. Each loan requires two records, for a total of 4,156 records.

RECORD # 1Var.// Width

-	5	Client Case Number (not consecutive)
-	2	Loan Number, consecutive for each client
-	1	Record Number (1)
1	1	Sex (1) Male, (2) Female, (3) Group
2	1	Client Classification at time of loan authorization. (1) A-1 (3) B (5) D (7) Unclassified (2) A (4) C (6) New (8) E See Circular #7 of Feb. 5, 1963 (annex A)
3	4	Year and Month (YYMM) of classification. See also variable 90, Months in Classification
4	2	Number of Dependents. For Group Loans, number of Beneficiaries (if non-zero).
5	2	Year of Birth. (for group loans, year of organization)
6	1	Agrarian Reform Participant (0) No; (1) Yes
7	1	Land Tenure (1) Owner (3) Usufruct (5) Mixed or (2) Renter (4) Agrarian Reform Other
8	6	Farm Size in <u>Tareas</u> . 1 <u>Tarea</u> = 6.44 Acres 1 Hectare = 15.9 <u>Tareas</u>
9	6	Total Assets, in Pesos.
10	6	Total Agricultural Assets, in Pesos
11	1	Type of Agricultural Asset #1 (1) Land (4) Buildings (7) Stored Products (2) Vehicles (5) Livestock (8) Growing Crops (3) Equip. & Mach. (6) Fowl
12	6	Value of Agricultural Asset #1, in Pesos
13	1	Type of Agricultural Asset #2 (See Var. 11, above)
14	6	Value of Agricultural Asset #2, in Pesos
15	6	Date of Loan Application (YYMMDD)
16	6	Date of Credit Agent's Report (YYMMDD)
17	6	Date of Loan Authorization (YYMMDD)
18	1	Level of Approval Authority (1) Board of Directors (5) Regional Credit Com. (2) Central Credit Com. (6) Delegation Credit Com. (3) Branch Credit Com. (7) Supervised Credit Com. (4) Nat'l Monetary Bd. (8) Branch Manager (0) Coordination Com.
19	3	Plan (1st 2 digits) and Sub-Plan (3rd digit) (See Draft Credit Policies Manual. Plan 19-1 recoded to 36-0)
20	2	Number of Transactions (Disbursements plus Payments, for use in prior Fortran program control. For numbers of non-zero disbursements and payments before 3/29/81, see Var. 80 and 83.)

<u>Var.#</u>	<u>Width</u>	
21	2	Branch Office Code (See Annex B)
22	1	Flag signifying that data came from Accounting Records Only, (Incomplete Case) (12 loans)
23	6	Authorized Loan Amount, in Pesos (No Centavos)
24	6	Due Date for Single Payment Loans Only (YYMMDD)
25	1	Loan Status as recorded on last transaction voucher (Unreliable)
		(1) Advances (7) Delinquent 31-360 days
		(2) Normal (8) Delinquent over 1 year
		(3) Extended (9) Approved, Disbursable
		(4) Deferred (0) Repaid or Charged off
		(6) Legal Action Begun to Dominican Government.
26	2	Number of Prior Inspections (Usually includes one for having an Investment Plan)
27	2	Number of Supervisory Visits (Before Due Date)
28	2	Number of Visits for Collections (After Due Date)
29	2	Reason #1 for Delinquency (see bottom of back side)
30	2	Reason #2 for Delinquency (of data collection form)
31	1	Number of Extensions of Due Date
32	2	Number of Installments specified by all extensions.
33	2	Number of Installments specified by original loan. (For lines of Credit, number of planned rollovers, See also Variable 105)
34	5	Loan Purpose #1 (See table for recoding)
35	5	Loan Purpose #2
36	6	Amount Approved, Purpose #1, in Pesos
37	6	Amount Approved, Purpose #2, in Pesos
38	6	Approval Date, Extension #1, (YYMMDD)
39	6	" " " ", Extension #2, (YYMMDD)
40	6	" " " ", Extension #3, (YYMMDD)
41	2	Reason #1, for Extension #1
42	2	" " #1, " " " " #2 (See bottom of back)
43	2	" " #1, " " " " #3 (side of data collec-
44	2	" " #2, " " " " #1 (tion form)
45	2	" " #2, " " " " #2
46	2	" " #2, " " " " #3
47	6	Enterprise Size, Purpose #1
48	6	" " " " " ", Purpose #2
49	1	Units Code for Enterprise Size, Purpose #1
50	1	" " " " " " " " " " " ", Purpose #2
51	6	Project Physical Production, Purpose #1
52	6	" " " " " " " " " " " ", Purpose #2
53	1	Units Code for Production, Purpose #1
54	1	" " " " " " " " " " " ", Purpose #2
55	6	Projected Value of Production, Purpose #1, (In Pesos)
56	6	" " " " " " " " " " " ", Purpose #2, (In Pesos)
57	6	Projected Cost of Production, Purpose #1, (In Pesos)
58	6	" " " " " " " " " " " ", Purpose #2, (In Pesos)
59	6	Projected Net Income, Purpose #1 (In Pesos)
60	6	" " " " " " " " " " " ", Purpose #2 (In Pesos)

<u>Var.#</u>	<u>Width</u>	
99	8	Amount Delinquent on 6/30/80 (In Cents)
100	8	" " " " " " " " 6/30/79 (In Cents)
101	8	" " " " " " " " 6/30/78 (In Cents)
102	8	" " " " " " " " 3/29/81 (In Cents)
103	1	Loan to Groups (0) No, (1) Yes
104	1	Additional Groups Sample (0) No, (1) Yes (Additional sample for Francisco Checo)
105	1	Line of Credit (if non-zero, number of rollovers) (only 11 credit lines)
106	8	Equivalent Delinquency Days 1 Equivalent Delinquency Day equals 100% of total disbursed amount delinquent for 1 day, 50% delinquent for 2 days, etcetera.
107	13	Sum of Squares of Disbursements For Pesos, use 4 decimal places. Note: Check number of digits of accuracy of your computer and language.
108	13	Sum of Squares of Payments For Pesos, use 4 decimal places
109	6	Last Due Date, Original Authorization For single payment loans, same as variable 24 For installment loans, due date of last installment.
110	8	Balance on Last Original Due Date (-99) Not Applicable See variable 109. (In Cents)
111	8	Balance One Year After Original Due Date (-99) Not Applicable, (In Cents)



Colorado State University

Department of Economics

PROYECTO DE ESTUDIOS SOBRE CREDITO AGRICOLA

Banco Agrícola de la República Dominicana

SMALL FARM CREDIT PROFITABILITY AND REPAYMENT PROJECT

(AID/DSB/ESP Cooperative Agreement AID/ta-CA-3)

END OF TOUR REPORT

Dr. Thomas M. Dickey
Senior Economist and Chief of Party

July 22, 1979 to August 31, 1981

Santo Domingo,
República Dominicana
August 28, 1981

END OF TOUR REPORTI. GENERAL INFORMATIONPeriod Covered

The assignment began with my arrival in the Dominican Republic on July 22, 1979 and will end on August 31, 1981.

Counterpart Relationships

At the beginning of the assignment, it was agreed that the project would be provided office space in the Programming Department of the Agricultural Bank. An initial counterpart relationship would be established temporarily with Ramon Aquino and Gregorio Cruz, Head and Deputy-Head, respectively. During October of 1979, two individuals were assigned to work full-time on the project. One, Vitalino Peña Nova, was loaned to the Bank by the Secretariat of Agriculture, but since the Bank did not hire him by January 1, 1980 as required by Agriculture, Vitalino returned to work at Agriculture in May of 1980. The other, Manuel Antonio Vásquez (Tony), is an employee of the Plant Health Division of the Secretariat of Agriculture, assigned as Plant Health Coordinator in the Bank. Since he was not given any functions by the Plant Health Division, he has collaborated with the project full-time since October of 1979. Both Vitalino and Tony are agronomists with university level training. Tony proved to be adept at learning the basic economic concepts involved in the activities of the project and participated fully in both the design and the implementation of the budgets, the record books and the research on the characteristics of the loans and borrowers of the Bank.

Changes in Bank Personnel

The Project was negotiated when Rafael Jorge was the Administrator. Tomás Hernández became Administrator in August of 1979 and was succeeded by Mario Cáceres on January 1, 1981. The objectives and management styles of each of these men were significantly different. The employees of the bank exhibited reticence in their operations during both of the transition periods.

The three top employees of the Programming Department at the time the Project was negotiated were fired three months prior to my arrival. Their positions were filled by promotions from within the Department. Although I do not know the three, I suspect that

their absence made a considerable difference in the response shown by the Bank to the suggestions and activities of this project.

II. ACCOMPLISHMENTS AND PROBLEMS

This section of the report describes the accomplishments and problems for each of the components of the Plan of Work.

Design and Implementation of an Enterprise Budgets Methodology

During the early stages of my work, I found that the Secretariat of Agriculture (SEA) had a Farm Management Division that was charged with the preparation of enterprise budgets. Rather than attempt to design a methodology only for the Bank, I decided that an attempt should be made at achieving the coordination of the Farm Management Division and the Bank for the preparation of the budgets. My initial efforts were aimed at achieving the establishment of a joint Agriculture-Bank "Program" that would have its own staff and resources, since the Farm Management staff was consistently being used for other assignments. It was hoped that the existence of such a Program would allow a greater degree of specialization of the employees and, as a consequence, the use of a more sophisticated and reliable budgets methodology or one that could prepare a greater variety of budgets. Horacio Stagno, the Interamerican Institute of Agricultural Sciences (IICA) advisor that worked fairly closely with the Farm Management Division provided some assistance in this attempt.

When it became apparent that a Program would not be established, I approached the Department of Agricultural Economics, in which the Division is located, and the Agricultural Bank with the proposal for the development of a methodology for use by the Division, but with the use of Bank Credit Agents for the performance of a limited portion of the interviewing that would be required. With the agreement of both institutions, we developed the details of the methodology and the administrative/coordination relationships that would become the SEA/BAGRICOLA Budgets System. A detailed description of the methodology is contained in the book of budgets published by the Division. A report is also being prepared for AID that describes the reasons behind the particular design, the methodology itself and recommendations for the adaptation of the methodology in other countries.

Once the methodology was designed, a series of eight training sessions (one in each SEA Region) were held. All of the Farm Management Division staff and two credit agents from each Branch office of the Bank in the Region attended the respective courses. After a number of months in which few interviews were carried out, a second series of three courses was held. These courses were attended by a selection of Credit Agents from the areas in which they would be needed, and the Farm Management Division staff repeated the course.

As the end of 1980 calendar year approached, the field personnel of the Bank and the Division began performing more interviews. In January of 1981, all of the Division employees gathered near Santo Domingo, with their completed interviews, for a week of tabulations. In the following ten weeks, Tony Vásquez, Tony Ramírez (of the Division) and I worked full-time correcting the tabulations and preparing the budgets for publication.

A revised version of the methodology document, ninety-nine interview-based budgets and two estimated budgets (slight variations on an interview-based budget) were delivered to the Farm Management Division on March 28th for printing. The budgets were released by the Secretary of Agriculture and the Administrator of the Bank in May of 1981.

At that time, I made it clear to the Division, and to the Head of the Department of Agricultural Economics, that the Division would have to take the initiative on the budgets for 1981, but that both Tony and I would be available to help them in any further training or planning. Tony Ramírez, who had been the Farm Management Specialist for the Eastern Region, was transferred to the central office to be in charge of the budgets. On August 11 and 12, a training course was given to the twelve new Division staff members (a 33% turnover).

The Farm Management Division suffers from a number of problems. First, the Head of the Division has not gained the respect of his subordinates. Secondly, the budgets are only the second priority for the Head, since he has a three year budget of over \$300,000 of PL-480 funds for the Division's "Fincas de Comprobación." Thirdly, the field staff of the Division are not directly responsible to him. Rather, their immediate superiors are the Regional Directors of the SEA. Fourth, most of the field staff must beg or borrow vehicles in order to visit the farmers (their position is too high for the use of public transportation).

Fifth, their base salaries (paid at the Regional offices) are low and the "complementary" payroll (paid from the central office is often late. Sixth, although most of the field staff are university-trained agronomists (as opposed to technical school agronomists), their only training in the concepts of economic analysis and farm management is what they receive on the job.

I fully expect the Farm Management Division to prepare enterprise budgets for 1981 with the methodology that we designed. I do not expect the same degree of discipline in the elimination of arithmetic errors or in the grouping of line items in the tabulation procedure. Without any encouragement from someone associated with the Bank, I expect the Credit Agents to perform fewer interviews (they did 20% in 1980).

Since a separate Division of the Department of Agricultural Economics of the Secretariat prepares input and product price reports, the budgets methodology design did not include a component for the collection of prices data (other than that needed for each budget).

The response of the Bank to our recommendations for the use of the budgets in their loan analysis procedures will be discussed later.

Design and Testing of a Farm Records Book

The design of the farm records book was based on its potential use as a means of collecting information on small farmers' operations for use by the Bank in understanding the operations of its borrowers. It was not designed for use by the farmers themselves or for their own analysis of their operations.

This experiment was carried out with ten farmers in Nizao, a diversified horticultural area near the coast about 35 miles southwest of Santo Domingo. A local girl, a student of journalism at a university in Santo Domingo, was hired to visit each farmer once a week to record all of their activities, incomes and expenses. Based on my experience with small farmers in Latin America, I decided to depart from the design prepared by Oklahoma State University for the Honduran part of the overall project. Their design had separate sections for Income, Expenses, Labor Usage, Inventories (annual), and Production Records. This design permits a direct flow of information into the end-of-year Profit and Loss Statements, Balance Sheets and Cash Flow Analyses.

However, I believed that the interview process would be difficult for farmers that are not accustomed to thinking in terms of income separate from expenses and separate from labor usage records.

The initial design of the record book included a section in which to record all of the movements or uses of inputs and products and a separate section in which to record all of the work activities, whether manual, animal traction or mechanized. Additional sections were included for non-farm income and expenses and the inventories (annual). This design was used between December of 1979 and June of 1980. However, the interview process was difficult because the interviewer was required to flip back and forth between the two main sections in order to record both the work and the materials used or the production and sales.

The second design simplified this process by providing a relatively open format for the recording of all of the work activities, purchases and uses of inputs, sales of products, etc., on a single page for each crop or enterprise. The format is similar to that of a cash record, in which the expenses are recorded in one column and the income is recorded in a separate column. This organization permitted the interviewer to obtain all of the information on an enterprise before proceeding to the next one. In addition, she could refresh the memory of the farmer by informing him of the items that were recorded in the previous interview. When the farmers indicated what work would be performed during the next week, she would make a note to herself to make sure that she asked about that work during the next interview. This design also included a perpetual inventory section (for each input or product stored temporarily) with which the interviewer could check the source of the inputs used or the products sold. The inclusion of this section resulted from the problems Tony and I had in balancing the purchases and uses of inputs.

On two occasions, we were able to take some of the mid-level Bank officials to Nizao to talk with the farmers. They did not, however, appear able to make any logical connections between the farmer's operations and difficulties with Bank procedures and how the Bank policies might be improved.

Institutionalization of Analytical Capability

This component of the Project did not produce significant achievements due to the generally low level of managerial ability of the principal officers of the Bank. Decision making is highly centralized in the hands of the Administrator, who is appointed by and serves at the pleasure of the President of the Republic. The administration of the Bank operates on a crisis management system, mainly because of the political nature that it acquires as a governmental institution (and one that deals with money). Between September of 1979 and May of 1980, the Bank expanded its outstanding loans by 38.7% and its commitments to disburse by 87.2%, with little apparent regard for its ability to obtain the funds with which to make the disbursements. The liquidity of the Bank has been consistently low, with short periods of extreme crisis. The financial and statistical information systems are not capable of providing the proper or reliable information that would be required for decision making. The management and accounting systems designed by Arthur D. Little Co. during the mid-seventies were not adequately implemented. As a result of these, and other, factors the various Departments and Branches continue to operate with little cooperation or coordination. No incentives exist for improvements in the established systems and procedures.

It was hoped that this component would produce a Credit Agent's Manual containing the enterprise budgets and a Credit Policy Manual. The Bank accepted the Project proposal that the existing credit policies be compiled, as a first step in the preparation of an official Credit Policies Manual. Three employees combed the files of Circulars and Memorandums and a draft Manual was compiled, all under my supervision and organization. This draft Manual was delivered to the Administrator in September of 1980. In February of 1981, the Bank's advisor (from the Interamerican Development Bank, IADB) and the (now) Head of the Credit Operations Department began a review and rewriting of the principal section of the manual (the general policies for the Bank's own funds, "Plan 1").

In November of 1980, I made an oral presentation to a number of mid-level employees of the central office and four Branch Managers of a proposal for changes in the loan application and approval procedures. This proposal incorporated the use of the enterprise budgets and a previously proposed Client Classification System (to replace the 1963 system). The presentation was made with a flipchart and models of the forms that would be used in

the system. This particular proposal was presented as a series of ideas that would require further design and adaptation by the Bank, rather than as a system that could be directly implemented.

Also in November of 1980, I began planning a special research activity since it appeared that the Bank's lack of interest in the use of the enterprise budgets would leave me with little to do in the last months of the Project, and in the hope of interesting some of the employees in an analysis of the characteristics of the Bank's portfolio. I began designing the study in December and early January and completed the data collection form and sample selection in March, while the finishing touches were being put on the budgets publication. The data include the principal characteristics of the client and the loan, including the complete transactions record (up to March 29, 1981) for each loan in the sample. All of the data came from the loan files and the accounting records of the Branch Offices. The sample loans are all of the loans approved and disbursed, between July of 1977 and June of 1980, for a random sample of approximately 1066 clients of the 94,260 that had one or more loans approved during the period. The final data file includes 2078 loans, drawn from all 30 Branch offices. The Bank provided five employees for the two weeks of data collection (March 30-April 10). Three students of the Instituto Superior de Agricultura (ISA) in Santiago also participated (paid with project funds).

The organization, review and correction of the data forms, keypunching and programming required more time than expected. I wrote a fairly complex program for error detection and for the calculation of over 30 variables that provide a summary of the transactions and delinquency for each loan. The large size of the file made for long running times, thereby reducing the opportunities for obtaining time on the Bank's IBM 370 computer. During July and much of August, the computer was not operating due to problems with the data center's air conditioning unit. The final runs were done on the computer at the Secretaría de Estado de Finanzas. The overall result is that the data files were finally ready on August 17th. The data have been copied to magnetic tape so that Ronald Tinnermeier and I can perform analyses at a later date.

Arrangements are being made so that Francisco Checo can obtain statistical analyses of the data for his thesis (B.A.) that will compare repayment by group and individual borrowers.

Since I was unable to obtain any statistical analyses of the data before my departure, I was also unable to interest

any of the Bank employees in the analysis of the data. On August 28th, I was finally able to get several of the BMDP package of statistical programs to run on the Bank's computer, but there appears to be an invalid character in the data file. The Bank's programmers should be able to assist him in making the necessary corrections and he should be able to obtain help from some of the Secretariat of Agriculture programmers if any further problems occur in the BMDP programs.

Training

The formal training activities carried out by the Project were the eleven courses on the Budgets Methodology, to the Farm Management staff and approximately 100 Bank Credit Agents, and the week of tabulations for the Budgets.

- Informal training was provided, in order of significance, to:
- 1) Tony Vásquez and Vitalino Peña (my counterparts) on all aspects of the project.
 - 2) Tony Ramírez (now in charge of the Budgets in the Farm Management Division) on the Budgets Methodology.
 - 3) Francisco Checo (formerly Sub-Head of Credit Operations in the Bank and currently with the Fondo Especial para el Desarrollo Agrícola 'FEDA') on general bank problems and policies and on the preparation of his thesis using the portfolio characteristics data.
 - 4) Gregorio Cruz, Ramon Aquino, Andrés Sánchez, and the remaining employees of the Bank's Programming Department.
 - 5) Benjamín García (now Head of the Credit Operations Department).

Summary of Accomplishments and Problems

The principal research objectives of the Project (Budgets and Record Books) were fulfilled. The budgets methodology has been institutionalized, but the rigor with which it will be continued will probably be less than optimal. The institutionalization of the farm record books did not occur, but the original expectation for this was very low. My attempt at involving Bank employees in analytical exercises, using the portfolio characteristics data, was unsuccessful due to the problems with the Bank's computer. Although the file will remain on the disk for some time, I do not expect the Bank's programmers to take the initiative in learning how to use the BMDP programs.

The suggestions made to the Bank were all related to changes in operating systems or sub-systems. Suggestions on operating

decisions would have been inadvisable. Although the Bank officials were usually outwardly receptive to the ideas, admitting that the system had problems, none of the suggestions have been implemented or adapted. This resistance to change can be attributed to a combination of factors that are common to governmental institutions in a highly politicized environment, and one in which decision making is highly centralized, that result in the perception, by the subordinates, of considerable risk in taking any initiative. A more detailed analysis of this situation is presented in the paper that I gave as a seminar at Colorado State University in September of 1980, entitled "Decision Making and Technical Assistance in Public Institutions in LDCs."

III. RECOMMENDATIONS FOR THE AID MISSION

Enterprise Budgets

The demand for the published budgets has already exceeded the first printing of 1,000 copies. The Mission should determine, through its own sources, the uses being made of the budgets and the opinions of the Dominicans as to the reliability and usefulness of the budgets prepared with the methodology. If this determination is positive, the Mission should provide encouragement and support to the Secretariat of Agriculture, both formally and informally, for the continued use of the methodology. This encouragement and support will be required due to the relatively low priority that the budgets system has received within the Department of Agricultural Economics and the low levels of leadership and initiative that exist in the Farm Management Division.

Future Mission projects could include technical assistance components for the development of specific budgeting methodologies for the perennial crops, livestock, and multi-cropping enterprises and for the inclusion of fixed costs in the budgets for annual crops. An evaluation should be made of the suitability of the categories for technological characteristics so that any necessary alterations can be made.

The Banco Agrícola

The Bank's relationship with both AID and the IADB has been a vicious circle in the effects on the Bank's administrative systems. The Bank does not have an adequate information system (including the financial accounting). First, when AID (or IADB) requests information, the Bank normally assigns, in an all-out

priority, a number of its employees to obtain whatever information has been requested. Since the available data do not normally match the request, the analysis presented often does not adequately satisfy the request. Secondly, AID requires a separate set of accounts for the management of its funds. Thus, the Bank creates a new "Plan" (line of financing) with its own accounts in each Branch office. With 15 or 20 sets of accounts, plus the consolidated accounts, to be maintained, the Bank can not be expected to provide the types of information on the uses made of its funds that a thorough analysis would require. The system is extremely inefficient, but neither AID nor IADB have been willing to help design a system that would provide the information they need or that the Bank might need.

AID could provide support for the design of a new information system to be used on the IBM 4331 computer which is expected for March of 1982. The Bank Administration does not understand computers and the staff of the computer center is not capable of redesigning the Bank's system, let alone one that would take advantage of the sophistication of the 4331. The systems currently in use were designed for the IBM 360 and were adapted for use on the IBM 370. Thus, the current systems do not even take advantage of the sophistication of the IBM 370. The Bank can not obtain the necessary quality of systems analysts with its salary scales. With AID support, a team of experts in the design of information and accounting systems for Banks and capable systems analysts could be contracted. The existence of adequate information on the Bank's operations would contribute enormously to (but not guarantee) improved administration of the Bank and would make the Bank a much more attractive candidate for AID project funds.

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