

AGENCY FOR INTERNATIONAL DEVELOPMENT
 WASHINGTON, D. C. 20523
BIBLIOGRAPHIC INPUT SHEET

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Batch 49

1. SUBJECT CLASSIFICATION	A. PRIMARY	Food Production and Nutrition	AA00-0000-G354
	B. SECONDARY	Agriculture--General--Costa Rica	

2. TITLE AND SUBTITLE
 Intercountry evaluation of agriculture sector programs: Costa Rica country program

3. AUTHOR(S)
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4. DOCUMENT DATE 1974	5. NUMBER OF PAGES 83p.	6. ARC NUMBER ARC
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7. REFERENCE ORGANIZATION NAME AND ADDRESS
 AID/LA/DP

8. SUPPLEMENTARY NOTES (*Sponsoring Organization, Publishers, Availability*)
 (In Program evaluation studies) (Summary of overall, intercountry evaluations, 63p., PN-AAD-108)

9. ABSTRACT

The "sector approach" as applied in Costa Rica is evaluated in this third volume of a four-volume report. The basic program concept and design is logical and internally consistent. It focuses on providing assistance to small farmers who produce primarily for the domestic market. However, the results may fall considerably short of expectations. The technical assistance and credit programs may not produce production and income increases for broad areas of the farm population. Moreover, it may not be possible for one agency to plan and coordinate programs that are executed by agencies over which it has no control. The CAN, CALCITOS, and Ministry operations need to be reorganized and integrated. A continuing program of evaluation needs to be initiated. The Mission should work with appropriate MAG officials to develop a continuing information system for the agricultural sector. Current USAID attempts to use existing producer organizations as an additional means of reaching small farmers should be encouraged and expanded. The loan guarantee fund in the credit project and the guarantee fund for land purchases in the land tenure project are imaginative innovations that should be expanded and strengthened as pilot efforts.

10. CONTROL NUMBER PN-AAD-110	11. PRICE OF DOCUMENT
12. DESCRIPTORS Costa Rica Evaluation Government policies Organizing	13. PROJECT NUMBER
	14. CONTRACT NUMBER AID/LA/DP
	15. TYPE OF DOCUMENT

**PROGRAM
EVALUATION
STUDIES**

**Intercountry Evaluation of
Agriculture Sector Programs**

**Colombia
Costa Rica
Guatemala**

**Vol. 3
Costa Rica
June 1974**

Agency for International Development

**Bureau for Latin America
Office of Development Programs (LA/DP)**



AGENCY FOR INTERNATIONAL DEVELOPMENT

BUREAU FOR LATIN AMERICA

PROGRAM EVALUATION STUDIES

INTERCOUNTRY EVALUATION OF
AGRICULTURE SECTOR PROGRAMS

Colombia
Costa Rica
Guatemala

Vol. 3: Costa Rica

by

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Charles Montrie
James Hawes
Fred Mann

June 1974

A.I.D. Evaluation Studies represent the views of their authors and are not intended as statements of official policy.

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INTRODUCTION

This volume is one part of a four part report on evaluation studies of the agricultural "sector approach" as it has been applied in Colombia, Guatemala, and Costa Rica. The purpose of this program of studies is to provide, through comparative analyses of the experience and of the approaches and methods utilized in each of three countries, a basis for (a) development of general policy and guidance as to the use of an agricultural sector approach in other Latin American countries, (b) possible adjustments in current program and projects and for consideration of future programs in each of the individual countries, and (c) consideration of possible changes in procedure and methods for analysis and processing of sector loans.

In conducting this evaluation we have sought to examine the substantive and analytical issues in the sector approach as applied in Costa Rica and the results of its application rather than to evaluate the effectiveness of particular projects or programs. We have considered our task to be one of studying and appraising (a) the nature and content of the sector program and its objectives, (b) the adequacy of the analysis used to arrive at and support the strategy and programs adopted, and (c) the likely contribution of the strategy and program to the accomplishment of their objectives and to improvement of economic conditions in the sector, and especially of the income of the target population.

Our approach in this Costa Rica section of the report has been to make appraisals in terms of accomplishments or lack of accomplishments of the program in relation to its own purposes rather than attempting comparisons with programs and approaches which have been followed elsewhere. We have avoided drawing conclusions as to whether the program and analytical methods are better or worse than those used in other programs. Instead, we have attempted to reach conclusions as to strengths, accomplishments, weaknesses, and shortcomings within the context of the program's own purposes and objectives to provide a basis for considering future sector strategy, program content, and analytical methods.

No conclusions are reached in this or the other country reports as to lessons to be learned from the experience with a sector approach in Costa Rica which might be generally applicable to use of such an approach

or to its use in particular countries other than Costa Rica. Neither are comparisons made with approaches and programs adopted in other countries. Those tasks are, however, a part of the entire study and comparisons made and general conclusions drawn are incorporated into an overall report.

In view of the nature of the objectives of the program and the limitations of time and availability of data we have not attempted to reach any conclusions as to results of the program in terms of effects upon overall production or income. No projections of such results or of anticipated effects upon the production or income of individual farms were made when the program was developed or when the loan was made. Neither were other specifically identified or quantitative targets established. As a result no comparison of actual results with projected results is possible. Instead we have attempted to identify possible indications of program effects upon the farmer and means by which such effects might be appraised in the future. It has, however, been possible to obtain some indications of results in terms of improvements in the institutions for dealing with sector problems and their ability to plan, coordinate, manage, and evaluate sector programs and projects. This improvement in the institutional base for dealing with problems of small farm agriculture was in fact the primary shorter-run purpose of the loan.

This report is based on an examination of documents and reports prepared in connection with development of the program and the making of the agriculture sector loan, of programs conducted under it, and on discussions with LA/Bureau, USAID/Costa Rica, and Government of Costa Rica personnel. There is no single document which sets forth the sector

strategy and program and the analytical basis for it. We have thus been dependent upon a number of sources, especially the Capital Assistance Paper (CAP) and individual studies prepared by the USAID and its contractors in connection with development of the program. Similarly there is no functioning system for the regular reporting of program results. We thus have relied upon such individual reports and documents, usually prepared for other purposes, as we were able to locate, which might give some indication or the suggestion of possible results and upon two evaluations of program progress conducted by the Government of Costa Rica through a contract with the American Technical Assistance Corporation.

The report consists of a first chapter in which major findings and recommendations are summarized; a number of chapters describing the program and its development, appraising its analytical base, and evaluating its results; and a final summary chapter. This method of presentation involves a certain amount of repetition, but has been adopted to permit users of the report to examine it in such depth as their needs and interest require.

Drafts of the report have been reviewed and commented on by USAID/ Costa Rica and staff of the LA Bureau. To accommodate suggestions, we made such changes as we considered appropriate. The findings and conclusions, however, are ours. The team spent two weeks in Costa Rica in November 1973. The report should be read and interpreted in the context of this limited time for examination and observation.

The evaluation was conducted by a team made up of personnel from AID and the American Technical Assistance Corporation (ATAC). Team members were:

Edmond Hutchinson, ATAC, Team Leader

Charles W. Storie, AID/Latin American Bureau/Office of Development Programs

James Hawes, AID/Latin American Bureau/Office of Development Resources

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The findings, conclusions, and recommendations reflect the collective judgment of the team and are not intended to represent the official views of the Agency for International Development, any of its constituent units, or of the Costa Rica government.

CHAPTER 1

SUMMARY OF FINDINGS, APPRAISAL, AND RECOMMENDATIONS

A. FINDINGS

1. The Costa Rica Agricultural Development Program, supported by the AID Sector Loan, consists of a number of activities which constitute a comprehensive attempt by the Government to help the small farmers of the country increase their production and income. The loan thus fits AID's program policy emphasis. For purposes of the program a small farmer is defined as one whose net income is less than 25,000 colones (about \$3000) a year.
2. The analysis undertaken in connection with development of the AID loan and the adoption and implementation of the program financed by it has resulted in a major increase in governmental concern for conditions in the small farmer subsector and in its efforts to improve them.
3. The program seeks to achieve its ultimate goal primarily by providing credit and technical advice to small farmers and by promoting improvements in input and product marketing facilities, in research, and in the transmission of research results.
4. While the ultimate goal of the program is an improvement of the well-being of the small farmer, its medium term and operationally relevant purpose is the establishment of a viable and effective institutional base for providing the small farmer with requisite services and credit.
5. Reorganization and strengthening of the Ministry of Agriculture is an element in efforts to provide this institutional base. Great emphasis, however, has been placed on coordination of activities of the various sector entities, through a National Agricultural Council at the national level and a group of regional councils representing the agencies at the local level. This coordination of activities of

- public agencies operating agricultural programs is to be reinforced by related community development programs and agencies coordinated through similar arrangements.
6. The functional areas covered by the 7 projects in the program are reasonably related to program objectives. If each contained a full spectrum of required activities, as a whole they could constitute an inter-related system for bringing an integrated program of assistance to the target group. Some of the areas, however, fall short of containing the scope of activities needed for a comprehensive project and some of the activities seem only peripherally related to program purposes. These last are relatively small, however, and do not significantly affect the program.
 7. Projects and activities originally contemplated have remained basically unchanged during implementation. (The possibility of adding certain new projects under new loans is being considered). A system of regular progress reporting, primarily in terms of inputs, has been installed and is in operation. The administrative aspects of the loan were well planned originally and have been carried on effectively.
 8. While many delays to be expected in bringing about organizational and other institutional change have been experienced and even though accomplishment of the immediate purpose has suffered from short falls in planned budget resources, resulting in a lag in the implementation schedule, the Government has given support to the reorganization, especially the creation of regional agricultural development centers. The basic structure and the required bodies and facilities have been established, the staff of the Ministry of Agriculture has expanded, and its personnel budget has been substantially increased.
 9. While the organization process at the national level is well along and the regional operating and coordinating offices has been reorganized, the regional offices are just now beginning to undertake coordination activities. There is some

evidence that program objectives are not fully understood by all agencies and that a satisfactory degree of coordination is not yet established.

10. There has been a substantial increase in the volume of credit flowing to the target group and an increase in the number of small farmers receiving credit.
11. Implementation Letter No. 1 requires the establishment of a Program Implementation and Evaluation Plan for each project financed by the loan. The implementation portion of the plan is to serve as an operating guide for execution of the plan. The evaluation portion is required to include targets, in terms of anticipated accomplishments for each activity specified in the implementation part of the plan. These targets are to be used to evaluate progress in project implementation. Targets have been established primarily in terms of inputs such as provision of funds, personnel, and other resources, and intermediate outputs such as institutional changes made, amount of credit or technical assistance provided, and similar project objectives. Regular evaluations are being made against these targets but provision has not yet been made for evaluating the results of the program in terms of either improved institutional coordination and efficiency or of effects upon the farmers' production and income. It appears that there may not be a consensus that evaluation in such terms is necessary, or, if it is eventually required, that it should be started now.
12. The program and the loan in support of it was the outgrowth of the work of a group of AID-contracted Costa Rican and AID economists and agriculturalists chaired and led by the AID Mission Director. This group appraised the past performance of the agricultural sector and its characteristics, and conducted and contracted for a series of individual studies covering the areas of crop priorities, marketing, provision of agricultural services, credit, agricultural education,

cooperatives, land tenure, and agriculture sector institutions. This series of studies, together with other AID studies, provided the analytical basis for the program. Another study conducted by the Associated Colleges of the Midwest (ACM) under an earlier AID contract was completed about the same time as the series of individual studies. The ACM study is an overall review of the sector which generally confirmed the conclusions resulting from the series of individual studies. On the basis of these studies and the discussions and debate within the group, the Academia de Centroamerica prepared a report, "Estudio Preliminar para Redactar una Solicitud de Prestamo a la Agencia para el Desarrollo Internacional" which laid out the main components of the program. The CAP and the annex to it describe the basic conclusions drawn from the studies and the general nature and purpose of the strategy and program adopted and contain some elements of justification on economic and sociological grounds. However the nature and content of the studies, the nature and extent of the analysis conducted, the alternatives considered and the basis for their acceptance or rejection, and the precise relationship between the studies and analysis conducted and the projects proposed were not set forth in any single document. There does not exist anything which can be characterized as a "sector analysis" or a "sector assessment" or which sets forth in one place in a definitive way the nature of the program and the basis for it and which can be described as the authoritative statement of the program, its objectives, the strategy adopted, and the analysis on which it was based.

13. It appears that preparation of the CAP and its annex was not taken as the occasion for establishing priorities among program elements. As a result the program consists of many activities of greater or lesser importance without differentiation as to significance.

14. The basic strategy upon which the program is based involves the following elements: (1) focusing on the smaller domestic market-oriented producers as the target group, with exclusion from the program of activities related to the generally large farm and primarily export-market oriented elements of the sector, and, while not establishing criteria which exclude the holder of very small plots from participation in the program, recognizing that (except for instances involving production of crops highly intensive in land use) most of this group, which constitutes one half the population engaged in agricultural activities, will not be reached; (2) acceptance of the hypothesis that provision to the small farmer of a coordinated package of credit, technical assistance, and inputs will increase his production and income; (3) while making available to the farmer advice, credit, and services, recognizing him as the one best able to make the choices as to crops to be produced and services and inputs to be utilized thus not incorporating a specific crop focus with targets for increases in production (although certain crops were identified as "priority crops best fitting the objectives of the sector on loan"); and (4) emphasis on the lack of efficient and coordinated delivery of credit, technical assistance, and other services by existing sector institutions as the primary constraint upon increased production by the target group.

B. APPRAISAL

1. The approach used to develop the program was rational, pragmatic, and appropriate to circumstances in Costa Rica. The joint participation by Costa Rican and AID professionals provided for productive interchange of ideas, made it possible to relate the program to Costa Rican circumstances, and served as a basis for common understanding and support of the program. It appears that perhaps greater participation by personnel of sector institutions would have been desirable.

2. The basic program concept, strategy, and design is prima facie logical and internally consistent. If the objective is to increase production through programs administered or coordinated by the government, choice of those farmers who produce primarily for the domestic market and are relatively small and yet not so small as to make market farming an uneconomic enterprise as the target population is sound. The export-market oriented segment of the sector does not have a great need for the services and it is not unreasonable, under circumstances in Costa Rica, to expect that the problem of the very small farmer will be taken care of in a tolerable manner through expansion of the sector and the economy as a whole. Similarly, uncertainty as to exactly which crops should be produced and emphasized and as to returns under varying farming conditions, the openness of the Costa Rican system, and the well known problems involved in bureaucratically administered decision making in areas in which economic returns and profit are critical, justifies a decision to adopt an approach under which credit, technical assistance, and production inputs are made available to farmer while leaving him free to make choices as to their utilization and decisions as to what to produce. Such an approach also makes it sensible not to establish specific production increase targets. We find those aspects of the approach both sound and refreshing. In addition, it is clear that credit and production and marketing assistance must be major elements in any program whose objective is to increase the income of the target population of the Costa Rican program. Finally, it is likewise clear that the success of any such program will be highly dependent upon the ability of the institutions operating it to plan, coordinate, implement, and evaluate it in an effective and efficient manner.
3. Notwithstanding the apparent logic and internal consistency of the approach, the soundness and reasonableness of many

elements of the approach and strategy adopted, and clear progress in reorganizing institutions and expanding credit, we have the following concerns with respect to the program:

a. We do not feel that adequate account has been taken in its formulation and implementation of the possibility that results may fall considerably short of expectations. This concern derives from the fact that:

- (1) We consider it not proved that the provision of credit and technical assistance generally will increase production of certain of the crops included in the program, particularly beans and corn, and the income of the farmer. The group responsible for developing the program apparently did consider this question and conducted some investigation of it. Examination of reports of such investigations reveals that there was evidence that production responses could be obtained in certain circumstances which could result in income improvement. The studies, which were not in great depth, also showed many cases of failure of such results to obtain. A number of sample studies indicate mixed positive, negative, and uncertain current responses and cite a considerable body of farmer opinion that use of credit and technical assistance for some crops does not pay. Further, opinions seem to differ among technicians as to whether an effective technological package has been developed for production of corn or beans in Costa Rica.
- (2) We are not entirely sanguine that less than fully integrated programs of assistance and credit, operated by institutions not motivated by either profit or urgent national necessity, will succeed in bringing about production and income increases for broad areas of the farm population. The contrast

between the results of crop or producer specific programs run by persons economically involved, or programs such as those arising out of the special necessities of countries such as Japan, Korea, and Taiwan, all of which usually involve the control of all program elements by a single organization, and those of programs such as those in the Costa Rica Development Program and similar programs throughout the world financed by AID and other organizations, is too striking to permit high confidence that the Costa Rican program will produce the expected results.

- b. In like manner we are not sure that it is in fact possible for one agency to plan and coordinate, to the extent necessary to make them fully effective, programs the execution of which is the responsibility of other agencies over which the coordinating agency has no legal, administrative, or financial control. This is not to say that the operation of CAN and the CAnCitos can not produce useful results. To the contrary, their operation should provide for significant formal and informal planning and coordination of activities. We are fearful, however, that expectations are too high and that too much dependence will be placed on such activities as an assurance of the ultimate productivity of the program. In this connection also we are concerned that there remains a need for strengthening the planning function within the Ministry and for improved coordination within it, especially as concerns relations between the CAN, the ministry planning office and the operating divisions of the ministry at the national level, and between the Regional Director of the Extension Services and other Ministry operations at the local level. We also point out that major recommendations of the study relative to the

functions and organization of the Ministry, conducted as a part of the group of studies for development of the program, especially those relating to strengthening the planning office, do not seem to have been adopted. We also cite the report of the Inter-American Institute of Agricultural Sciences of the OAS, "Management of the Agricultural Development Program of Costa Rica", which points out inherent and experienced difficulties in the CAN, CANcitos, and Ministry operations.

- c. Considering the problems mentioned above, we are concerned that there has not yet been built into the program provision for its evaluation in terms of results achieved with respect to either improved efficiency in and coordination of the program or effects upon the farmer's production and income.

C. RECOMMENDATIONS

1. Both AID and the Government of Costa Rica should give more explicit attention to the effect of the Agricultural Development Program on the income of the individual farmer and the small farmer subsector as a measure of the program's success. This should include an awareness that the effective administration of such a program does not necessarily assure the achievement of production and income increases by enough small farmers or in sufficient amounts to justify program costs. Such a recognition may be especially important in Costa Rica in view of the "comfortable minimum" of economic progress which can be expected from the sector as a whole and the fact that the country is not yet faced with a critical problem of rural unemployment and massive rural migration to urban areas. Keeping in mind this possible inability of the program to achieve the expected results, there should be incorporated into it an integrated set of management, economic, and technical research and testing

activities at all levels. The purpose should be to determine the effectiveness of various program elements in contributing to purposes and goals, to test alternatives, and to provide for making course and programmatic corrections and changes. Such activities should include:

- a. Field testing of alternative methods involving careful appraisal of cost effectiveness and managerial feasibility for both the recipient farmers and the administering agencies. The complexity of the problems, the wide variety of farmer situations, and the likely large number of possible alternative methods, would warrant a sizeable number of relatively small-scale pilot projects rather than a few large-scale ones. Such pilot projects can be carried on as a part of larger local programs. The local councils may ask for help from the research system to design projects to attack specific problems in their region, or the research system may ask the local groups to offer their facilities for a method devised because of strong central interest.
- b. In particular, a regular program of evaluation in terms of outputs and results, and especially in terms of effects upon the farmers' production and income. We recognize the difficulty of assigning cause and effect relationships. Nevertheless, we are convinced that it is possible to derive reasonable inferences, if not proof, of the results of various elements and combinations of elements in the program. In any event, it would be useful to know whether income and production are or are not increasing and for what crops, on what kinds of farms, and in what areas and when credit and technical assistance is and is not used. We also recognize that it is too soon for the program to have had significant overall effects. However, we are not persuaded that the program has been operating so short a time as to have had no effects. After all, at the individual farmer level, the

results of the use of credit and technology should begin to show rather immediately. The base line study just completed, appropriately analyzed and revised with such an evaluative purpose in mind, and the recent census, supplemented by specific case studies and incorporating results of research and testing as recommended above, should be able to provide an adequate system which should begin operating now.

2. The Mission should work with the appropriate MAG officials, and officials of other relevant agencies, in developing an adequate, uniform and non-duplicative continuing information system for the agricultural sector which can serve as a basis for policy and program planning purposes throughout the agricultural sector, as well as for objective analyses required for evaluation purposes. To the extent possible, and within the existing framework of the ADP, AID loan and grant resources and corresponding GOCC resources should be shifted into this activity to increase and strengthen it. The 1973 Census can serve as a benchmark for developing this system.
3. As a concomitant part of the previous recommendation, the Mission should seek to assist in improving the analytical capability of Ministry Sector Planning Office. This recommendation is in support of the objective of providing a common analytical base for the sector from which integrated policy and program planning and evaluation can evolve. It is also designed to permit the Ministry to play a more effective role in the coordination of policy through its representation on the CAN. It is pointed out that similar recommendations were made in the studies of organizations in the sector conducted in connection with the original development of the program. Accomplishment of this purpose should involve:
 - a. Accelerating the execution of the University of Costa Rica project;

- b. Utilizing existing assistance funds for on-the-job and outside academic training opportunities for planning office studies division personnel; and providing additional funds for other purposes as needed;
- c. Developing a means for permitting the planning office to pay a competitive salary to highly qualified personnel, or, in the alternative, to contract for such personnel on a continuing basis, and providing appropriate technical assistance designed to strengthen the analytical capability of the Ministry Sector Planning Office.

We recognize the practical difficulties, cited by the USAID, involved in accomplishing this purpose and in undertaking the actions suggested. However, this is an important part of the program and warrants continued efforts to find a means for strengthening the analysis and planning capabilities of the Ministry.

- 4. In recognition of the difficulties involved in CANcitos attempting to "coordinate" other autonomous agencies, continued attempts should be made to strengthen the Ministry organization at the regional level in order to provide stronger MAG leadership in coordinating activities of all Directorates General of the Ministry, and to allow the coordination between all MAG and non-MAG service agencies to take place through the CANcitos structures. To this end, continued support should be given to recommendations to make the Regional Director a director of all Ministry activities in a region 1 center rather than a director of extension ~~services only.~~
- 5. In the event the proposed new cooperatives loan is placed under intensive review, consideration should be given to making a major purpose of it the developing and testing of an alternative means of assisting the target group. This would involve incorporating an approach under which credit, technical assistance, inputs and marketing services are to

be provided in an integrated manner by a single organization subject to control by producers. The results of such an approach should then be compared with those experienced under the traditional type of governmentally administered programs or under programs administered through a number of institutions coordinated by a governmental instrumentality.

6. Current USAID attempts to use existing producer organizations as an additional means of reaching the target group should be encouraged and expanded. Results should be compared with other approaches as suggested in connection with the cooperatives loan proposal.
7. The loan guarantee fund in the credit project and the guarantee fund for land purchases in the land tenure project are imaginative innovations which should be expanded and strengthened as pilot efforts. Experience under them should be carefully and specially evaluated and documented as case studies with possible implications for programs in other countries.

CHAPTER 2

PROGRAM CONTENT, DEVELOPMENT, AND PROGRESS

TOWARD SUBSTANTIVE OBJECTIVES

I. SIZE AND CONTENT

The Costa Rica Agricultural Development Program (ADP) consists of seven (7) projects comprised of a number of specific identified activities. In addition to the specific activities and projects, a further significant feature of the program is the provision for increasing the budget of the Ministry of Agriculture. Total investment in the program is planned to amount to the equivalent of \$30.9 million over a period of 4 years. The AID loan in support of the program was planned to be \$20 million when the CAP was prepared. However, it was decided to eliminate \$3.6 million for municipal development from the agriculture sector loan and to authorize it as a separate loan. Consequently, the actual sector loan is \$16.4 million, to be disbursed over the 4 year period of the ADP. Just how the size of the loan was determined is not clear. The only reference to the question which we have been able to find is in a Section of the CAP called "Issue: The Size and Duration Of The Loan." In it the appropriateness of a 4 year period is discussed and it is indicated that in view of the size (\$20 million) of the loan that little if any additional lending will be contemplated. It is then stated that "During the past four years, AID loans totalling \$22 million have been authorized for Costa Rica."

In addition to the sector loan in support of the agricultural development program, AID provides a modest amount of grant financed technical assistance (now in amount of about \$425,000) in support of the program. An agricultural junior college is also grant financed. These funds finance ~~and direct hire technicians~~ for monitoring the loan and providing assistance in implementation of projects financed by it; short term specialists to provide assistance in seed, grain, and food laboratory development; marketing, and water management; participant training; and contract services for assistance to the CAN and the Ministry in connection with coordination and evaluation activities, agricultural education, and market development.

The projects, activities and planned costs (not including the grant financed technical assistance) are shown in Table 1 which follows.

TABLE 1. PROJECTS, ACTIVITIES, AND COSTS

Projects and Activities	Costs (thousand dollars)		
	AID	Costa Rica	Total
I. Agricultural Services			
A. Coordination and Education	125	-	125
B. Regionalization (Extension & Research)	968	5000	5968
C. Ministry Headquarters	132	-	132
D. Grain Standards & Quality Seeds	100	100	200
E. Seed Processing Facilities	350	75	425
F. Food Technology Laboratory	150	100	250
G. Agricultural Census	500	500	1000
TOTAL	2325	5775	8100
II. Agricultural Education			
A. Technical Assistance to Faculty of Agronomy	1200	580	1780
III. Credit			
A. General Credit	3500	3500	7000
B. Incentive Guarantee	750	250	1000
TOTAL	4250	3750	8000
IV. Cooperatives			
A. Credit	3000	2000	5000
B. Technical Assistance and Training	450	150	600
C. Operating Expenses & Equipment	100	250	350
TOTAL	3550	2400	5950
V. Marketing			
A. Management Analysis	150	-	150
B. Grain Storage, Drying, and Handling Equipment	750	-	750
TOTAL	900	-	900
VI. Land Tenure			
A. Land Titling	2700	1200	3900
B. Land Sale Guarantee	750	250	1000
TOTAL	3450	1450	4900
VII. Community Organization	500	600	1100
Contingencies	225	-	225
GRAND TOTAL	16400	14555	30955

II. OBJECTIVES

There are a number of statements of the objectives of the Costa Rica sector program which vary somewhat in their emphasis. The CAP states, "The objective of this Agricultural Sector Program is the transformation of Costa Rica's small farm domestic consumption oriented subsector from traditional to modern high-productivity production, thereby (a) improving the small farmer's income and the quality of rural life, and (b) facilitating a more dynamic contribution of the small farm sub-sector to national growth." The Loan Agreement contains a similar statement.

The USAID Quarterly Loan Report #6 for April-June 1973 states, "The purpose of the entire Agricultural Development Program is to establish a viable effective agricultural institutional network that has the ability of reaching the small farmer with the necessary inputs to increase his productivity and his social well-being.

The ultimate goal of the program is to increase the net worth and relative standards of living of the small farmer and his family in Costa Rica."

The Country Program Paper, Agricultural Credit Project of the Agricultural Sector Program, prepared by Albert Brown (one of the participants in the original program development process) and submitted by USAID/Costa Rica for the AID 1973 Spring Review of Small Farmer Credit says that the program was developed to strengthen the Costa Rican institutional capacity for dealing with access to credit, technical assistance, productive inputs, and markets by those farmers who are not well informed, who are not well off, who lack impeccable credentials, and who lack influence and entrepreneurial skills. It then states that the program, "seeks the transformation of the primarily domestic-consumption oriented small farm subsector from traditional to modern high productivity systems and methods." The report of the 1972 evaluation of the program conducted by the American Technical Assistance Corporation with Mr. Brown as project leader states that, "The fundamental intent of the agricultural sector program, is to develop an integrated set of institutional arrangements which will provide the small farmer with the services, inputs, and organization which he needs to increase his productivity."

Costa Rican government officials in our discussions with them, all heavily emphasized the institution building and coordination aspects of the program as being its operational goal.

III. ANALYTICAL BASE

The sector program and the loan in support of it were the outgrowth of the work of a group of Costa Rican and AID economists and agriculturalists performed under the leadership and chairmanship of the AID Mission Director. The Costa Rican group consisted of former government employees, professors from the University of Costa Rica, and other agricultural technicians who organized a non-profit research institution, the "Academia de Centroamerica (ACA)". This series of individual studies provided the analytical base for the program. These studies covered the areas of crop priorities, marketing, provision of agricultural services, credit, agricultural education, cooperatives, and land tenure.¹ Based on these studies the Academia prepared a

¹The following are among the more important of the individual studies conducted.

(1) Credit and marketing studies by the Associated Colleges of the Midwest (these appear to be the same basic material as chapters on those subjects in the "analysis" done by this group).

(2) A study of cooperatives by CLUSA.

(3) An agro-industry study by ACA.

(4) Studies of the administrative organization of the agricultural sector, IICA, UN, GOCA, AID.

(5) A study of an Agricultural Information Center, ACA/Economia Ltda.

(6) A study of Basic Grains in Central America ACM/Economia Ltda.

(7) Land Titling in Costa Rica: A Legal and Economic Survey, University of Costa Rica/AID.

(8) Several production studies by University of Florida.

In addition, parts of a report prepared by the Associated Colleges of the Midwest under a 1968 AID contract for an "agricultural sector analysis" were made available up to the time of preparation of the loan paper in June 1970. The final report apparently did not proceed beyond a draft form.

study, "Estudio Preliminar Para Redactar Una Solicitud De Prestamo a La Agencia Para El Desarrollo Internacional" which laid out the main components of the program.

These studies and reports give a useful picture of the aggregate nature of the sector and, in some cases, point out apparent and possible obstacles to accelerated development. They contain little quantified analysis, and there is virtually no attempt to quantify the effect upon selected objectives of alternative policies or investments in the sector.² They do include some small studies of production responses to application of fertilizer and improved needs and effects on farmer income.

The study by the Associated Colleges of the Midwest is of the same nature. While it contains little analysis, it does, however, provide a comprehensive description of the sector and its performance.

The several studies were not additive in the sense that there were only casual relationships between what one study reported and others surrounding it. As one reads several of the studies, he picks up a lot of information about Costa Rican agriculture, but it is difficult to be sure what it means in a policy or investment program context. They do, however, arrive at the conclusions that the agricultural sector as a whole, and the export subsector in particular was performing well, that the production of small, domestic market oriented producers was lagging, and that the institutional base for administration of governmental programs in the sector was weak.

The questions the study group addressed itself to were (1) Did the agricultural sector need assistance at all? (2) If so, at what targets or groups should it be directed? and (3) What kind of assistance was needed? The group also apparently considered and debated various options, including assistance to agro-industry, before reaching its conclusions.

The conclusion of the group was that the overall performance of the sector had been very good with the value of agricultural production increasing at a high, consistent, and accelerating rate. It also found, however, that this growth was largely confined to the larger farmers and coffee

² One of the more analytical studies was on agricultural credit. It also made several specific policy recommendations, one of which became pre-conditions or objectives of the AID loans.

and other export market producers who were supported by ample credit, efficient marketing systems, and their own effective systems of technical assistance, and to producers of domestic crops such as rice, where high price supports, considerable technology, and credit stimulated production. The production of smaller farmers producing for domestic consumption and mostly using traditional methods was found to be failing to increase and in some instances to be declining.

Based on these findings it was decided that assistance was needed by the smaller farmer who produces for the domestic market. No specific definition of a "small farmer" was developed, on the assumption that lending criteria could, in fact, determine the target population more precisely. In practice, a smaller farmer is considered to be one whose net income is under 25,000 colones (about \$3,000 at the present exchange rate) a year. It was considered that any small farmer would be eligible for participation in the program. However, it was recognized that most of some 65,000 persons holding plots of less than one manzana (about one half the total population engaged in agricultural activities) would not be reached by the program except in some individual cases in which it would be possible for them to produce crops highly intensive in inputs other than land. It was thus recognized that the program primarily would be addressed to farmers who were considered as "having a chance to make it." It was considered that programs which would increase the productivity and income of this group of farmers would improve social well-being and provide a means for sustaining and further accelerating the growth of the sector and the economy.

It was decided that, while assistance for the export crops, coffee, bananas, and sugar, and beef cattle would be excluded, the program would not be directed to specific crops and products except as they might be emphasized in annual programs. Instead, the attempt would be to make inputs and technical assistance available to the farmer who could then choose the crops to which he wished to apply them. Similarly, while credit was to be provided for production purposes, its use was not to be tied to particular inputs. Under such circumstances it was decided that the establishment of specific goals or targets for increases in production was not appropriate.

It was also decided that the best way to provide this assistance was to strengthen the ability of existing agencies to provide technical assistance to focus their efforts on this type of farmer, and to make specific provision for the expansion of small farmer credit, again utilizing existing institutions.

The selection of projects for financing was not based on any quantitative comparison of alternate means for realizing a given set of objectives. No uniform set of criteria was expressed and applied in a uniform manner.

The question of establishing base line data and a system for evaluating results in terms of effects upon the farmer was considered and apparently strongly debated pro and con. While one sample survey was conducted for the purpose of establishing base line data, it was decided not to provide for such evaluation, insofar as we have been able to determine on the grounds that any such results would require time to occur and the assertion of cause and effect relationships would be tenuous if not impossible. From some conversations we have had, and from the statements appearing in many of the documents, we suspect that there was also a conviction that if technical assistance, inputs, and credit were provided in a coordinated manner, production and income would increase as a matter of course without the necessity of testing or demonstration.

The results of the various studies and statements of alternatives considered and the basis for decisions were not then, and have not yet been brought together into any kind of overall report¹. Within USAID, CAN and MAG, there is no common understanding as to what constitutes the analytical or diagnostic basis for the ADP and AID loan. In fact, there seems to be little concern over maintaining (and up-dating) this base.

The CAP includes a section titled "Economic Analysis" in which an attempt is made to justify the loan in terms of the benefits to the sector anticipated to be derived for its use. The analysis begins with a statement that "Perhaps the single most important idea underlying the proposed

¹ Unless one wishes to consider the CAP itself as such. This document, as is the present nature of CAP's in AID, is an advocacy paper written to justify a loan rather than a document which analyzes alternatives, identifies courses of actions considered and reasons for their acceptance or rejection, and constitutes an authoritative and agreed upon statement of goals, strategy and program.

project is that substantial productivity and production gains can be achieved by the small farmers through the substitution of modern for traditional farming practices."¹ Projections of project impact are made by giving illustrative quantitative results of production trials in Costa Rica and developing from this "a means of evaluating the project as a whole."

Illustrations given include calculated (not experienced) benefit/cost ratios for a project for rehabilitation of some 4,000 hectares, showing ratios ranging from 2.4:1 after 4 years to 9:1 after 20 years; the results of a test of application of fertilizer to pasture conducted by an ESSO subsidiary which are stated to show a change in the ratio of annual total cost to annual gross revenue from 1:7.34 to 1:13.91; and field studies" which are reported to show changes in the ratios of cost to revenues for production with use of the "traditional methods" as compared with "modern methods" of from 1:1.13 to 1.29 in the case of beans and of from 1:1.15 to 1:1.70 in the case of corn. Apparently, these illustrations were given to make the point that significant production increases can result from changes in production technology. We do not find that they entered into the calculation of project benefits.

The actual calculation of what is stated to be a rough approximation of "the productivity of the loan as a whole" was made by "using an average cost/benefit ratio developed from Costa Rica experience." It was assumed that the agricultural services, agricultural education, and land tilling projects produced no direct benefits but were supportive of the program and that their costs, but no benefits, should be included in the calculation. It was further considered that the marketing and community development projects should be evaluated separately (apparently this was not done). As a result of these assumptions, the calculation is an estimate of the productivity of the credit program. To do this, an average total cost/gross revenue ratio for certain crops (potatoes, onions, tomatoes, garlic, peanuts, pineapple, and green beans) was calculated using data said to be derived from farm and bank records showing "the value of production generated per dollar of input cost." Individual ratios used varied from 1:1.44 for peanuts to 1:3.80 for potatoes. These were then averaged to produce an unweighted

¹ CAP, "Costa Rica: Agricultural Development Program," AID-DCL/P-916, p. 69.

arithmetic average ratio of 1:1.29 for beans (apparently on the theory that credit would not be used for a crop in which it produced less return than it did for beans). This resulted in a figure of 1:1.69. This factor was then applied to estimated annual credit extended to obtain estimated returns. Costs were considered to consist of AID loan disbursements (excluding those on the marketing and community development projects), Costa Rican counterpart disbursements, and interest on the loan. These costs and returns were discounted to present values to show the following results* at an 8% discount rate:¹

	<u>1976</u>	<u>1972</u>	<u>1973</u>	<u>1974-----</u>	<u>1978</u>
Costs	6,701	7,037	7,440	6,902-----	2,708
Returns	7,589	9,233	11,473	13,590-----	11,134

*apparently in thousands of U.S. Dollars.

Total present value of annual costs is calculated to be 40,213 as compared with 87,896 for the present value of annual benefits.

A number of comments concerning this analysis seem to be in order. First, the attribution of benefits to the credit program only is practical but conservative. Second, there is no indication that a comparison was made between the characteristics of the farms and farmers included in farm and bank records and those expected to receive credit under the loan financed program. In the absence of such analysis there is little if any basis for assuming that results would be similar in both cases or, if different, in what directions. Statements are made in documents relating to the program, however, to the effect that in the past credit has tended to go to larger more productive farmers. One would certainly expect this to be the case in circumstances in which providers of credit are left free to minimize their risks and in which the supply of credit is limited. If this is the case, the data used would tend to overstate benefits.

A further element to be noted is the fact that the lack of weighting in the first calculation of an average cost/revenue ratio gives equal weight to all crops regardless of their relative importance and that the averaging of this with a similar ratio for beans gives beans an importance equal to that of the total of 7 other crops. In addition, these ratios are calculated in terms of average costs and revenues when for the purposes

¹ Op.cit., Table VII-1, p. 73.

for which they are to be used it is marginal costs and revenues which are significant.

A very significant element is the fact that the crops included in the calculation are, first, relatively unimportant crops and, second, and more significant, not the crops or products which are emphasized in the program. Rice, dairy products, and corn, none of which are included in the calculation, are the only items of significance in the program insofar as volume of credit extended is concerned.

We are confused by the way costs are handled. Only counterpart contributions are considered as Costa Rican costs even though the amount of direct administrative and overhead costs by the many agencies involved in the program is significant. Apparently disbursements against the AID loan are included as costs in the year of disbursement and payments of interest on the loan are included as costs in the year in which payment is made. Apparently additions to credit funds provided in Costa Rica are intended to be included as costs in the year in which they are provided. However, the summary of the calculation does not make it clear that this is the case and, as best as we can determine, the total of increments to credit shown in calculating benefits exceeds the total Costa Rican costs shown in calculating total costs. It seems that interest on neither increments in nor on the stock of credit funds is included as a cost at all. This is inconsistent with the handling of interest on the AID loans.

It is not possible to conclude from these observations that the ratio between benefits and costs calculated is too high or too low. It can be concluded, however, that the ratio cannot, as it was intended, represent a "rough approximation" of the relationship between benefits and costs which could be expected to obtain under the program.

IV. PROGRESS TOWARD SUBSTANTIVE OBJECTIVES

In order to make some comparisons of actual results with such calculations and in order to reach some conclusions as to whether progress is being made toward the long term program of increasing small farmer production and income, we made an effort to determine to what extent AID and/or GOCR agencies have developed an ongoing evaluation system that can provide information with respect to production and income results of the

program. We found, however, that no such system exists. In fact, the "Evaluation Check List" in the CAP contains no questions related to such results. Consequently, we have attempted to draw some conclusions based on such sample surveys as we were able to locate. The limited number and the nature of the surveys and the time at which they were made, however, prevent us from reaching conclusions in which we have confidence. At best, we can only indicate questions related by examination of the surveys which reinforce the need indicated elsewhere in this report for a continuing process of analysis and evaluation.

As indicated in Chapter 5, a 1964 study by the Central Bank and a 1966 study by the National Bank of Costa Rica show sharply different relations between the use of credit and farmers' net worth and income. The National Bank study shows that the net worth of farmers receiving credit almost tripled from 1955 to 1966 whereas the Central Bank study showed that in general the incomes of small (non-coffee producing) farmers who had been receiving credit for 20 years had not increased.

The AID/W financed IICA Management Program for Rural Development carried out some surveys which provide indicators of the effects of credit and technical assistance on production. Since the purpose of the Survey was not to determine economic impact on farmers, except as a means of determining program management and administration bottlenecks, the results cannot be considered definitive. Further, the data was taken in 1972 and cannot be considered to reflect the impact of the AID loan program. We, nevertheless, look on the results as revealing and useful, especially in the absence of this kind of information in the present program evaluation system.

In the survey, samples were obtained for three regions: Guanacaste, San Carlos Sarapiquí and Pacífico Sur. Sample farms were selected for "qualitative representativeness" in terms of selection of sample zones within each region. Actual farmers interviewed were selected at random from lists supplied by the Regional Centers, from among those that raised corn or rice. Forty-eight names were selected for each region. (42 for Guanacaste). Since the data we saw was tabulated for each region, but not for all three regions, we have selected some results from the region of Pacífico Sur:

(1) 56% of the farmers surveyed were full-time farmers; 23% were part-time farmers with outside work as agricultural laborers; 21% were part-time farmers with outside off-farm work.

(2) Average farm size was 26.83 manzanas (46 acres), but only 17% or 4.57 manzanas (7.8 acres) was planted to corn and rice. Range of size was from 118 manzanas (200 acres) to 2 manzanas (3.4 acres). 28% had farms less than 6 manzanas in size (10 acres), 28% had 6 to 15 manzanas (10 - 25 acres), and 44% had more than 15 manzanas (25 acres).

(3) Crop mixes ranged from basic grains only to grains, livestock and coffee as well as other crops.

(4) Average productivity was highest for the middle-sized farm (6 to 15 manzanas), next for the smallest and least for the largest.

(5) Only about 1/4 of the farmers used modern technology for corn, while nearly 1/2 used modern technology for rice. There did not appear to be a positive relationship between use of modern technology for corn and increased productivity, while there was a positive relationship in the case of rice.

(6) Only 19% of the farmers considered they had sufficient information about credit and its availability. Only 23% indicated that they obtained information about credit from official sources. Of these, about equal numbers learned from banks, the extension service and the National Production Council (CNP).

(7) Nearly 1/2 of the farmers considered that they had insufficient information about inputs. Only 19% learned about inputs from official sources.

(8) Only 10% of the farmers considered they had adequate market information. One third of the farmers indicated that market information was obtained from official agencies.

(9) 6% of the farmers considered that extension services provided were adequate. 70% did not receive any extension assistance.

(10) 45% of the farmers used credit for corn or rice. Of those who used credit, 63% attended some kind of training meeting, while 50% consulted agents or technicians. Of the group that did not receive credit, only 38% attended some kind of training meeting, while only 15% consulted agents or technicians.

(11) For those farmers who used credit for rice, the average yield per manzanas was 24.15 quintales, while it was only 18.32 quintales for those who did not use credit.

(12) For those farmers who used credit for corn, the average yield per manzanas was 17.64 quintales, while for those who did not use credit, the comparable figure was 22.90 quintales, almost 30% more.

(13) One-third of the farmers who did not use credit said it was because they were afraid of the risk involved, while 56% said they did not apply for credit.

(14) One-half of the rice producers did not use improved seed, while 90% of the corn producers did not use improved seed. 40% of those who did not use improved rice or corn seed said it was because of previous negative experience. Only one-third said they did not know about improved seeds, while 7 - 13% said they had no confidence in improved seeds. It was concluded that improved corn varieties did not have the qualities or characteristics desired by these farmers.

(15) One-third of the farmers with credit used improved seeds and one-third of those without credit also used improved seed.

(16) Two-thirds of the farmers used fertilizer. Of those who did not use fertilizer, 42% said it was for economic reasons (too expensive and lack of credit). The same proportion of those farmers with credit used fertilizer as those without credit (two-thirds).

(17) Only 18% of the farmers preferred to sell their marketed products into the CNP. The rest did not mainly because they considered the price offered by CNP to be lower than alternative buyers offered.

There are four general conclusions of particular importance to the loan program that one might tend to draw from the above information:

1. There is much room for improvement in the provision of agricultural services to small farmers.
2. The "improved technology" for corn is not reliable for increasing yields for the zone.
3. The fact that a farmer does nor does not have bank credit, does not appear to influence whether or not he used improved inputs. Thus, it may be that bank credit is neither a necessary nor a sufficient condition to induce use of improved inputs. The evidence is not sufficient to establish whether there is a causal relationship between credit and increased production.

4. Similarly the evidence does not permit conclusions as to the relationship if any between the use of credit and improved technology and increased income.

On the basis of these indicators (which are similar for the other two regions sampled), we conclude there is considerable urgency in re-orienting the evaluation suggested for the loan program so it can address itself to the following questions:

1. Is a reliable "farm conditions" technology available for increasing yields substantially for different crops in different regions under different crop conditions? If not, can it be generated in the medium term if adequate resources are brought to bear?

2. Is the process of making credit generally available likely to increase the use by farmers of production increasing technology?

3. Are cost-price relationships such to induce farmers to invest more borrowed capital in their farming operations in attempting to raise income?

4. What appears to be the effect of the provision of credit and technical assistance and the use of improved technology on the income of particular classes of farmers receiving assistance under the ADP as compared with similar farmers not receiving part or all of such assistance?

A recent sample survey was made under the sponsorship of CAN of small farmers receiving either farm program credit or regular SBN (national banking system) credit. It appears that a part of the purpose of this survey might have been to initiate an on-going evaluating system which would provide for appraisal of production and income results.

However, it falls short of that goal. It measures the production costs and income situation of some 600 small farmers, but does not include any control information (either in terms of the sample group before receiving credit or of equivalent farmers who are not receiving credit from the SBN).

Thus, from this sample data, it is possible only to measure production performance in absolute terms. There are plans to relate this data to the new 1973 Census data, presumably to compare the sample farmers performance with the national average for equivalent farmer classes. However, the significance of such a comparison appears somewhat doubtful because of (1)

the possible wide range of farmers might fall in this frequency distribution, and (2) the static nature of the Census data as a "control group" since any effort to re-compare in a later year cannot take into account annual changes in the situation of the control group.

In discussions with USAID staff and advisors concerning the sample survey and future plans for re-surveys, it was indicated that an entirely new sample probably would be drawn and surveyed each year. If this is done, it is our opinion that it will not be possible to obtain a reliable measure of progress in terms of individual farm production and returns resulting from the program. In measuring different farmers each year, other variables are bound to intervene due to individual farm and farmer differences making it impossible to allocate cost and returns changes as between these variables and the program variables.

We recommend that at least a significant proportion (50% or more) of the annual survey include the same farmers as the original sample, in order to better measure distortions likely to result from individual farm and farmer non-program variables.

We commend the responsible parties for initiating the sample survey in 1973, though it contains what to us appears likely to be an unreliable means for determining the production and income impact of the program variables (i.e., comparison with census data). It shows a recognition of the need to know something about the individuals and target group who are the objects of the program.

Plans have come from various quarters for some time for farm level information required to measure economic impact on the national economy and individual small farmers in the programs¹.

Aside from the cost of credit resources invested in the program (which is assumed to be covered by interest earned although the interest rate is probably somewhat lower than the opportunity out of capital), the GOGR invests a considerable amount of public funds in the extension service and other services offered for the benefit of the small farmer.

¹ The first evaluation urged this in its first recommendation. See "Primera Evaluacion Program de Desarrollo Agropecuario gr. cinal prestamo AID: 515-L-022) proyectos Industriales, SA, Academia de Centro - America Mayo de 1972, P. 3.

The ministry of agriculture alone is spending in 1973, a total of 18,000,000 colones (\$2,118,000) in agricultural research, extension and coordination, ostensibly dedicated exclusively to small farmers. In addition, one might reasonably attribute 50% of other ministry costs to the small farmer assistance effort. That equals another 5,000,000 colones (\$590,000) making a grand total of approximately 23 million (\$2.7 million)¹.

The extension service has the largest field staff and reaches by far the largest number of farmers of any ministry service. Estimates given us indicate that the Extension Service expects to have contact with about 10% of the small farmers with holdings of over 1 manzana in size during 1973.

If we use the 1973 census figure of 79,000 total farmers (not including those with less than the manzana of land), less about 15,000 classed as "large" and take 10%, we end up with 6,400 farmers being contacted. The Ministry cost per farmer then would be about \$422 per farmer contacted. The average annual net farm income of the SBN small farmer in the recent survey conducted by AID and CAN was \$434.

We recognize that an exercise such as the above may be grossly inaccurate and is quite unscientific. When, however, it is combined with uncertainty as to the effects of the program on production and farmer income, it raises questions as to the cost effectiveness of the program and further suggests the need for detailed and continuing analysis of costs and benefits and the necessity for consideration of alternative programs.

If the \$2.7 million had been divided equally among all small farmers as a direct subsidy in 1973, each of the 64,000 would have received \$43.40 which amounts to a 10% increase in annual net farm income. There might also have been a positive effect on output if such an amount had been used for production subsidies.

This information raises the question of whether the ADP is realizing significant positive results in terms of economic impact on the target group.

Obviously, it is impossible to draw definitive conclusions until some more substantive evaluation information is generated. We urgently recommend that substantial resources be immediately invested in such an undertaking.

¹ See Memo from Negron to Kreis dated June 20, 1973.

CHAPTER 3

SECTOR ANALYSIS, PLANNING, AND EVALUATION ACTIVITIES

1. EXISTING ANALYSIS ACTIVITY

The analysis activity out of which the ADP and the loan were developed has not been continued. Neither does there seem to be any provision in the program for developing and institutionalizing an analysis capability. It would not appear to be inaccurate to say that at present socio-economic analysis of the agricultural sector, except for some cost of production studies in the MAG planning office, is not performed. Neither is there more than a limited effort to generate data and information required for such analysis, aside from the 1973 census.

There is a Department of Economics and Agricultural Statistics (DEEA) of the Directorate of Planning of MAG. This office collects and publishes quarterly statistics on agricultural credit, some information on agricultural prices, some import and export statistics, and some livestock sales and price data. Most of these data come from reports of other institutions. The main exception is price data which is collected in different parts of the country by this Department using Peace Corps personnel.

Additionally, this office does special surveys in selected areas of the country for specific types of production. The data collected is used to develop cost of production estimates.¹ No other analytical work is carried out either in this office, or in other offices of the sector, so far as we could determine. Only the Chief and the Assistant Chief of the Department have professional training (Economics and Agronomy).

We have considerable concern about the lack of analytical work being carried out within the sector, and the apparent lack of efforts to increase analytical capability, in terms of personnel, financial resources, and generation of relevant information and data. To be sure,

¹ One of the more recent: "Costa de producción En Ganado de Carpe", region Pacifico Sur-1972, Boletín Técnico No. 16 DEEA., October, 1973.

AID assisted in financing a new agricultural census which will be extremely useful in future analytical work. However, collation of the data remains to be done. Moreover, continuing data on production, farm costs and returns, prices of inputs and outputs, labor use, etc., by individual, area or region, are often more important than census data. Also, an information office in MAG is a valuable asset, but until data such as that just described are analyzed and interpreted in terms of effects of alternative courses of action, there will be little useable information to disseminate.

II. PLANNING ACTIVITIES

Although a national planning system was set up in Costa Rica in the mid-1960's, there has yet to be developed an institutionalized national planning process. For example, a four year national plan document was developed for the period 1967-1970, but none for the 1971-1974 period.¹ Presently, work is underway in "Ofiplan"² for the 1974-1977 four year plan.

The national planning system contemplates a sector approach to plan development. Agriculture is considered as one sector, and the Ministry of Agriculture planning office is the responsible planning institution. For the past several years, this office has functioned basically as a programming and budgeting office. To the extent that planning is carried out, it is limited to project planning -- feasibility studies and reviews of feasibility studies.

With the advent of the AID loan program, a new dimension was added to the agricultural sector planning institutional structure -- The Secretariat of the National Agricultural Council (CAN). The CAN Secretariat looks on its role³ as including annual planning for the so-called "Agricultural Development Program (ADP)." This planning activity is of

¹ According to the best information we could obtain.

² "Ofiplan" is the National Planning Office, which is attached to the President's Office.

³ With encouragement from USAID.

a two-step nature. First, each participating institution (MAG; SBN; CNP; ITCO; INFOCOOP; etc.) submits to CAN its activity plan. These basically deal with what activities related to the ADP they expect to carry out in the coming year. From these individual plans of activities, CAN develops an overall "activity plan." Second, each Regional Center is responsible for developing a production plan for its region. The production plan is to indicate priority crops and goals for each, i.e., number of hectares to be reached and amount by which yields are to be increased. The CAN summarizes these regional production plans, thereby establishing a national production plan for agriculture.

The system described above produced its first written plan for 1973.¹ It is expected that the evaluation system will compare actual accomplishments with the production goals specified in this plan.

There appears to be little integration between the planning activities of the CAN and those of the Planning Office of the MAG, except to the extent to which there are related MAG budget commitments. These then become a part of the MAG budget submittal.

Neither is there an integrated process relationship between MAG planning office activities and the agricultural portion of the four year plan now being developed by "Ofiplan." Instead, sector component inputs are generated by a series of "task forces" especially established for that purpose. MAG staff are appointed to task forces where appropriate, but the MAG sector planning office activities do not "feed into" the new plan in any orderly manner.

We also are concerned about the net effect on the analysis - planning-programming-budgeting process of shifting ADP "planning" responsibility out of the MAG Planning Directorate into CAN. It may well be that CAN is the proper forum to debate policy and investment alternatives, but if plans are developed in CAN as well, it creates a discontinuity as between those planning functions for the sector which the Planning Directorate carries out (or is charged with) and those of the CAN. To us, the net result of the concentration of assistance by USAID to CAN will be to weaken even more the total planning process for the sector.

¹ Plan de Ejecucion, 1973, Programs de Desarrollo Agropecuario, 1971-1974, 23 de Mayo de 1973.

We are told that efforts to assist the Planning Directorate have been made but we could find no significant inputs or efforts to improve staff capability or to provide technical assistance or resources in the area of socio-economic analysis, which is the foundation of a planning process, although assistance has been provided in the development of the census and in establishing the Information Office in the Ministry.

III. EVALUATION ACTIVITIES

The evaluation process for the agricultural development program appears to operate in two steps or phases.

First, each institution that participates in a partially or wholly loan funded activity submits a Quarterly Progress Report to the CAN secretariat. The CAN secretariat in turn submits a summary of these to USAID (and presumably to the CAN for prior approval), from which the USAID prepares a Quarterly Loan Report.¹ This is the first step or phase, and essentially consists of a resource utilization report, i.e., an "evaluation" of disbursements, organizational and personnel adjustments, etc. Basically, it follows the traditional extension service pattern of reporting details of direct and intermediary inputs into a process of service to farmers.

The second step or phase is the preparation of an annual comprehensive "Evaluation" Report prepared by an external group for the internal use of the MAG. Three such reports have been prepared to date,² the first having been done by a Costa Rican consulting firm and the last two by the American Technical Assistance Corporation, utilizing both Costa Rican and US staff.

The first evaluation was made at the early stages of the program, and now is somewhat out of date. We have found that the 1972 and 1973 evaluations have a considerable amount of pertinent information.

¹ The latest being for the period April-June, 1973. The third quarter, 1973 report is in process.

² The latest (1973) is still in draft form.

³ Referred to here as the "Evaluations."

The evaluations go into detail concerning the organizational changes, institutionalization and coordination efforts and problems. We consider the insights provided by the evaluations on these aspects to be realistic enough that there is no need to report them in detail here. The evaluators are to be commended for their work in this respect.

However, we find some difficulty in accepting their rationale for the existence of certain problems, and their recommendations as to how the GOCR might cope with them.

Our concerns are as follows:

1. Relationship between the stated objectives and strategy of the program (ADP) and the evaluation framework used.

The third evaluation states the objectives of the program as follows:¹ "Develop and execute a coordinated sector program to transform the domestically oriented small farm subsector from its traditional systems and methods to highly productive modern systems and methods, thereby (a) improving small farmer incomes and rural living levels, and (b) facilitating a greater contribution of the subsector to national development.

This objective is further specified as follows: Expected program results are:

- a. Improved incomes and improved living levels for thousands of farm families (with resulting increases in demand for consumer goods).
- b. Creation of a new and dynamic source of increased national production.
- c. An increase in employment opportunities and improved salaries in rural areas.
- d. Greater contribution of agricultural sector to balance of payments.²

The strategy also is reviewed by the evaluators. They conclude that the ADP strategy is based on a diagnosis of the sector which found that there were a number of interrelated factors restricting the development of the small farm subsector:

¹ Taken from the Loan Document, 1.02.

² Taken from the so-called "Green Book," page 19. This is a document in Spanish which is basically a direct translation of the AID Loan paper.

a. Small farmers producing for the domestic market continue to use traditional production methods.

b. Small farmers have little knowledge of modern inputs and methods and are not convinced of their value.

c. Small farmers receive little or no support from Government institutions or the banks.

d. Small farmers frequently do not have title to their land, resulting in little incentive to improve it.

e. Market facilities for small farmers frequently are inadequate.

f. Population pressure makes it very difficult for the small farmer to obtain land that is apt for cultivation.

The strategy is designed to attack the shortcomings in an interrelated manner.

The key element is to educate small farmers in modern agricultural methods, conceived in terms of (a) defining what and how they can produce, (b) provision of extension services to carry this knowledge to them, and (c) assistance in the form of improved access to land, credit, inputs and markets.

Two interrelated processes are said to be involved:

a. Establishment and improvement of necessary institutions for directly and individually providing to small farmers the forms of assistance described.

b. Considerable emphasis is required on the coordination of the work of all of these institutions, at the national, regional and local levels.¹

The Evaluation Report goes on to specify that the evaluation is based on the objectives and goals of the program.² However, the rest of the report deals almost entirely with an evaluation of the progress of the two steps of the processes set out above, i.e., to what extent has coordination been achieved among them.

¹ See Draft paper "Program de Desarrollo Agropecuario, Informe de Evaluacion, 1972-73", ALAC, Chapter I, A and B, pp 1 and 2, October 1973. We consider this to be a succinct and fair statement of objectives and strategy of the ADP.

² See Ibid, II, p. 3.

Essentially, then, the evaluations deal not with the objectives, but with the processes.¹

To be sure, the evaluators specifically recognize the need to evaluate in terms of the "real" objective, i.e., what is happening to the economic condition of the small farmers. However, they dismiss it as being possible only on the basis of subjective evidence, and make no recommendations to build into the ADP an objective system for evaluating economic impact.²

At another point in the third evaluation report, the evaluators discuss the problem of inadequacy of reporting.³ They indicate that reports from the involved institutions limit themselves to information on resource utilization in projects where AID loan funds are involved. This makes it impossible, they say, to evaluate in terms of impact on production, farm income, etc.

The recommendation resulting from this observation is that each institution should carry on continuing studies in "operations research" (investigacion de operaciones), with CAN contracting technical assistance in this area to assist in orienting certain institutions.

We are not sure what the evaluators had in mind when they referred to "operations research." We are fairly confident, however, that what is needed with great urgency is a joint (or delegated) effort to do sample farm level survey work that will show changes in 1) range, level and quality of services received by the farmer, 2) production and productivity, 3) input use, 4) net farm incomes, 5) absolute income position of farmers, minimum living standards, and 6) employment generated, etc.

¹ This also is true of the recent sample survey of small farmer banking clients, the preliminary results from which are presumably to become a part of the latest Evaluation Report. This survey, as discussed in Chapter 4 appears to have been designed, not so much to see to what extent the stated ADP objectives are being realized, as to determine what the characteristics are of the farmer group being reached by the AID program as opposed to the SBN program, and as between banks. It does not measure program impact on farmer input use, practices, production or income. It might, however, serve as a base for determining future impact.

² Op. Cit., Chapter II, B, 4, P. 17 and 18.

³ Op. Cit., Chapter III, C, 2, a. (third page of referenced section of the report).

We were unable to find any such recommendation. We submit that until such a continuing analytical system is implanted, evaluations can do no more than suggest what appears to be good, bad, weak or strong about organizational changes and coordination efforts. These are of importance in connection with making judgments as to improvements in management and administration but they are of little utility in determining whether or not the program is benefiting the target group.

2. The Role of CAN in Sector Coordination and Planning. The Evaluations rightly deal at some length with the progress and problems of intra- and inter-institutional coordination and planning. The evaluators are concerned that the involved institutions are not providing CAN with an informational base (reports on progress and results) that will allow it to coordinate and plan for the sector as a whole. They point out with concern the fact that reports deal only with resource utilization for those projects receiving external loan assistance. The solution proposed by the evaluators is that the CAN secretariat be enlarged¹ and the institutions be ordered by CAN to give them information on other aspects of their programs. Several additional recommendations are oriented toward strengthening processes of planning as an activity within the CAN-CANcito-service institutions complex.²

We are convinced that the tenor of these recommendations, while apparently attacking the problem, ignore a basic fact of life with regard to the entire CAN organizational structure, the ADP operations, the related reporting and evaluation system: All this essentially is a superstructure which exists for the purpose of monitoring external agricultural loan and loan counterpart utilization. CAN exists by Executive Order (not through legislative authority). That order delegated to CAN the responsibility for advising "the government and public entities in the formulation of National Agricultural policy and in the coordination of the execution of agricultural programs and plans."

That official responsibility obviously is not a planning responsibility for the sector, nor is it even a responsibility for coordinating the planning of others; it is the coordination of execution of plans.

¹ Op. Cit., Chapter III, C, 3, b.

² Op. Cit., Chapter III, D, 2.

The institutions of the sector, including the MAG, look on CAN as a coordinating mechanism for execution of the AID/BID loan programs; further, they look on those programs as being co-extensive with the ADP. Our conclusion is that the ADP is understood institutionally (within the GOCR) as a set of activities which AID loan funds are assisting to finance, that the reporting requirements and evaluation process are considered to be a part of the program, and that the CAN-CANcito organizational setup is for administrative control and coordination of that program.

It appears to us that the image of the CAN structure will be extremely difficult, if not impossible to shift from what it is now to what USAID and the CAN secretariat would like it to be, i.e., the moving force behind integrated substantive sector planning and coordinated implementation of those plans.

There are a number of reasons why such changes will be an up-hill battle:

1. Coordinated implementation is impossible without integrated plans, except in a very loose sense, i.e., "where we happen to be complementary, we'll work together; where we aren't-we won't." Of course, at the regional level, the so-called "coordination" by CANcitos can serve as a kind of "lobby" vis a vis the various central headquarters, just as the CAN coordination can improve the agriculture lobby at the national level. These, of course, are useful, but not sufficient, improvements.

2. Given the hypothesis that integrated plans are the forerunner of coordinated implementation, and given the policy advisory role attributed to the CAN by the Executive Order, it follows that the CAN will be able to do little more than play a promotional role in the planning area.

3. Even if CAN becomes successful in obtaining legislative approval of the organic law it is proposing, the problem of integrated sector planning is not resolved. Such planning depends upon the existence of a common or uniform analytical base, the creation of which requires a process of 1) continuous data gathering about the socio-economic conditions of the sector, and 2) coherent and continuing analysis of such data in terms of (a) identification and measurement of problems (obstacles) related to balanced growth within the sector, and (b) identification, and quantitative measurement of alternative policies, programs and investments for overcoming

such problems. We do not believe that this requires a comprehensive mathematical model of the sector, but rather the creation of an institutionalized and growing capacity to generate specific social and economic data, and carry out a program of partial analyses designed to shed light on the alternatives available and the extent to which they might contribute to desired improvements in the sector.

Efforts to improve the planning-programming process may be useful, but without substantive analysis that identifies and measures quantitative contribution of different activities to a set of objectives, planning can have little impact on program design.

To assure an institutionalized analytical capability will require far more than the addition of a macro-economist to the CAN staff as recommended by the evaluators. It requires a substantial and continuing infusion of resources (professional personnel and financial) into the appropriate offices of the planning system. Unless and until there is a GOGR commitment to such an effort, we believe that improvements in the total government efforts to assist small farmers will be seriously impeded.

4. The above comments do not deal directly with the question of duplication of roles of the CAN secretariat planning activities, and the MAG/Ofiplan activities. In a sense, they are involved in competing roles. MAG/Ofiplan as a part of the national planning system, cannot help but resent the resources and external support being received by CAN to do what Ofiplan is supposed to be doing. Strong feelings that agricultural planning is the role of the MAG were evident in discussions with MAG officials. In fact, there was evidence of strong feeling that the coordination role now assumed by CAN should be a MAG function.

We see advantages in having the role of program implementation/coordination assigned to an institution not within the administrative framework of the MAG. CAN seems to be an appropriate institution to fill that role. However, it is our opinion, that MAG/Ofiplan has the institutional advantage over CAN in competition as to who is responsible for sector planning. This is not to say that they have an advantage in competence, but neither organization has such a level of competence in substantive planning as to cause that factor to determine where support should go. We urge that a serious look be taken at this problem and the

appropriate roles of each office be strengthened, without undue encroachment by one upon the domain of the other.

In particular, we would urge consideration of strong USAID assistance to the MAC, Division de Planificacion y Coordinacion, especially the Oficina de Estadistica y Estudios to the extent it wishes to become involved in planning analysis as distinguished from a planning process.

CHAPTER 4

DESCRIPTION OF PROJECTS AND ACTIVITIES

1. AGRICULTURAL SERVICES PROJECT

The Agricultural Services Project consists of seven activities described below. The annex to the CAP states that the objective of the project is the provision of "a public sector institutional framework organized and provided with the necessary resources to carry out a program whose small farmer focus places a heavy burden on public planning, programming, and technical assistance efforts." Each activity has its own specific targets, goals, budget, and operational plan.

Some changes seem to have been made in the \$2,325,000 of funding to be provided as shown in the loan agreement. The USAID Quarterly Loan Report for the period April-June 1973 shows \$2,450,000 as being available for the project and Annex D of the IRR for the Cooperatives Development Loan dated November 1973 and prepared by the USAID shows a total of \$2,805,000. (See the discussions of the Coordination and Evaluation and Seed Processing Facilities activities below.)

A. COORDINATION AND EVALUATION

The USAID Quarterly Loan Report states that, "The purpose of this project is the establishment of a central coordinating body with representatives from all the public institutions interested in the Agricultural Sector, having the ability to organize the many diverse elements of the Sector program in an effective, viable package which will put within reach of the small farmer in an efficient and timely manner the services needed to increase his productivity."

The Loan Agreement provides \$125,000 in loan funds for the activity. Apparently, however, \$125,000 has been transferred from the contingencies item into it, thus making available \$250,000 for the activity. As of October 31, 1973, \$159,200 had been committed and \$65,000 had been disbursed.

To accomplish this purpose, there was reactivated by Presidential Decree a National Agricultural Council (CAN) to provide a means for coordination of the relevant activities of institutions operating in the sector

and for evaluation of the ADP. This role is to be played by establishing program policy guidelines, determining crop and commodity priority emphasis each year, reviewing regional plans, coordinating overall activities carried on in the small farmer sub-sector, and conducting regular program evaluations. Its goal is to bring about coordination at the National level of all the various institutions and agencies responsible for the various phases of the ADP. In effect, it was structured to attempt to bring about at the national level horizontal integration and coordination of the functional services, (such as research, extension, training, credit, marketing, etc.) necessary to "get small-farmer agriculture moving" in the traditional development sense.

The CAN was established with the Minister of Agriculture as Chairman but was not made a constituent part of the Ministry. A study prepared in connection with development of the ADP recommended that staff services for the CAN be provided by the Planning Office of the MAG. It was decided, however, to establish a separate Secretariat with its own Director reporting to the CAN. This decision seems to have resulted from a desire to have the CAN be truly an interagency body and from salary and other administrative problems which would arise if it were made an integral part of the Ministry.

In addition to the Minister of Agriculture as Chairman, the CAN consists of representatives from the various banks, the Institute for Cooperative Development (INFOCOOP), the Faculty of Agronomy of the University of Costa Rica (UCR), the Institute for Lands and Colonization (ITCO), the National Production Council (CNP), the National Planning Office, and other agencies and private organizations.

B. REGIONALIZATION

This activity contains two major elements, decentralization of MAG operations and coordination at the regional level of activities related to the ADP. As of October 31, 1973, \$894,888 of the \$968,000 of loan funds for this activity had been committed and \$550,462 had been disbursed.

Reorganization and decentralization of MAG has been accomplished by transfer of MAG personnel, particularly extension personnel, and related resources to six regions of Costa Rica, (instead of five as indicated in

the Loan Agreement and eight established in 1968). These zones are Pacifico Seco, San Carlos, Pacifico Sur, Atlantico, Meseta Central Oriental and Meseta Central Occidental. Each regional office is in the charge of an extension service Regional Director who, in addition to directing extension activities¹, attempts to coordinate activities of the various other MAG Directorates (research, administration, livestock, and forestry).

Coordination of overall ADP activities is expected to be provided by the establishment in each region of a Regional Agricultural Council, (CANcito), which is analogous to and structured along the lines of the CAN at the national level. The CANcitos are designed to coordinate agricultural activities of the several regional institutions concerned with the small farmer sub-sector.² The CANcito, under the chairmanship of the MAG Regional Extension Director, has as its role developing and planning projects, determining budget and other resource needs, coordinating activities, evaluating progress, and preparing reports to CAN on all activities.

CAN guidelines for programs at the regional level describe the role of all entities involved and suggest the methodology to be employed for development of regional plans for programs to be implemented. The ADP at the regional level is intended to be a vertically integrated, crop production oriented program in a specific region, giving emphasis to one, two or at the most three commodities. The "packages of technology" for these commodities are to be developed or adapted in each ecological zone, and the "packages of development" involving the various functional entities (marketing, credit, inputs, technical assistance, etc.) presumably are to be provided to meet regional priorities, capabilities and needs. CAN guidelines established a list of nine basic commodities, (rice, corn, bananas, milk cattle, pork, poultry, fruits, vegetables and cacao), which are to be given priority in the ADP. In some instances, regional projects are conducted to include assistance in commodities other than these. Livestock, for example, has been selected in the Pacifico Sur area. Other

¹ These include programs outside the small farmer sub-sector as well. While we had no way of determining the proportional mix of small farmer versus non small farmer oriented activities, it appears that the former predominate, but with considerable variation between regions.

² see "Plan de Ejecucion," 1973, Programa de Desarrollo Agropecuario, Consejo Agropecuario Nacional, Annex B (Organization Scheme).

activities include such commodities or areas as coffee, tobacco, cassava, sorghum, plantain, artificial insemination, 4-H clubs, nutrition, meteorology and soil conservation.

AID assistance to the regionalization activity has consisted of financing vehicles, tractors, and other equipment for regional extension centers. IDB has financed the construction of laboratories, offices and housing for the regional centers. Technical assistance to the CANcitos is provided indirectly through AID financed advisors to CAN who have provided assistance to the CANcitos as a part of CAN's operation.

C. MAG HEADQUARTERS

This Activity's purpose is to "strengthen the Ministry of Agriculture's capacity to provide better service to farmers in the field of extension, research, and information so that they can increase their productivity and living standards." In effect, the activity serves as a backstopping source of information and services at the national level to fill MAG needs at the regional level. This activity performs planning and programming support, assists in coordinating research and extension activities, provides for improvements to soils laboratory services, and has established an Information Center. It provides for use of Peace Corps Volunteers, who are assigned to the Regional Centers to assist in the research program on corn and beans, in making surveys, and assisting extension agents. In addition to establishment of the Agricultural Information Center, a number of changes have been made in the organization of the Ministry as a part of this activity. A position of Vice Minister was created and a position of Director of Operations was established to provide for coordinated direction of all the Directorates (bureaus).

AID assistance has consisted of the provision of office equipment and vehicles to the Information Center and the MAG central office and technical assistance to the Information Center.

D. GRAIN STANDARDS AND QUALITY SEEDS

The purpose of this activity is to "attempt to establish the necessary laboratory services and legislative and regulatory framework to assure the farmer the quality of seeds he plants...and standards of

quality for grains produced." Specific targets are to establish a combined seed and grain laboratory through constructing, equipping, and staffing of a facility at the University of Costa Rica to perform seed and grain analysis services. Seed analysis, based upon Seed and Grain Legislation passed in late 1972, is intended to assure that regulations regarding quality control of seed and grain are enforced. Seed analysis would assure the identification and standardization of foundation, certified, and stock seed for farmers through the Seed Commission and the National Production Council's seed program. It is understood from our discussions at the Mission that the program at the present time consists largely of certification of rice seed (95%).

In the case of grain quality control, loan reports¹ have indicated that grain regulations are "now functioning." Presumably, this infers that the Grain Commission and the National Production Council are enforcing quality control standards of the basic grains. We have not been able to determine if this is actually the case. Due to the very recent completion of the laboratory facilities and the newness of the regulations we have serious doubts concerning any impacts of this activity on quality, price and benefit to the small farmer as a result of this activity to date. It will require more time to determine such impacts and the relative importance of this activity to the overall "packages of development" approach.

As of October 31, 1973, \$58,068 of the \$100,000 from the loan had been disbursed and an additional \$41,932 committed. AID funds are being used for the purchase of laboratory equipment and for a short training course for laboratory analysts.

E. SEED PROCESSING FACILITY

This activity was financed under the loan because of the need for improved seed processing facilities of the CNP to receive, dry, grade, classify, treat, package and store seeds so that their quality will be maintained until planted by the farmers. Provision of this service is expected to encourage promotion of improved seed production which producers

¹ Quarterly Loan Report of April-June, 1973

may not otherwise be able to finance. This activity complements other steps taken in the chain of events usually considered essential for assuring good seed (a seed law, a certified seed program, and seed testing facilities).

No funds have been disbursed for this activity to date. A report has been prepared on the proposed seed processing facility at the CNP. The engineering design for the facility has been completed and an architectural and engineering firm is preparing plans and specifications. CNP has prepared invitations for bid for the construction of the facility. AID funds are provided to finance a feasibility study and plant design, construction of the main building and storage depots, and machinery and equipment.

F. FOOD TECHNOLOGY LABORATORY

The rationale for this activity, which provides for the construction of a Food Technology Laboratory Facility at the University of Costa Rica, is that new production possibilities can be opened up to Costa Rican enterprise by testing new and improved methods of processing agricultural products. Presumably the clientele for this service will be food manufacturers and students who will be trained for later employment in the food processing industry. The possible impact of this activity on the small farmer will be indirect at most by providing potential future marketing outlets for some commodities which might be produced in excess of internal fresh food market requirements. This activity appears to be somewhat marginal in importance compared to other elements of the program.

The present status of the activity is that the Food Technology Laboratory (which is incorporated into the same building facility as the Seed and Grain Laboratory) is complete and equipment is being assembled for installation. By October 31, 1973, \$57,955 of the \$150,000 allocated under the loan had been disbursed and the remaining \$92,045 had been committed.

G. AGRICULTURAL CENSUS

The rationale for this activity is to assure that agricultural sector data is made available so that rational decisions can be made in the planning of the Agricultural Development Program. This activity was funded under

the loan so that necessary data processing equipment, vehicles and technical assistance could be provided to the Census Bureau to plan and perform the 1973-1974 census. The census was completed during May 14-19, 1973 and information received by enumerators is in the process of compilation and analysis.

This activity was funded by \$500,000 of AID loan funds, of which \$250,156 were disbursed by October 31, 1973. An additional \$50,179 in loan funds have been committed leaving a balance of \$199,977 uncommitted as of this date.

II. AGRICULTURAL EDUCATION PROJECT

A. FACULTY OF AGRONOMY-TECHNICAL ASSISTANCE, UCR

The rationale for the support of this project under the sector loan was the need to provide specialized agricultural technicians to plan and execute national and regional programs in agriculture. Such technicians would be the product of efforts to enlarge and improve the education and research programs of the Faculty of Agronomy of the University of Costa Rica by means of technical assistance.

The overall objective¹ was to "greatly increase the number of university-trained agricultural professionals available to public and private agricultural institutions." More specifically it was to assure a supply of agricultural scientists in sufficient numbers and quality to supply the Ministry of Agriculture's needs. Specific target numbers of professionals were not established in the CAP, except that mention was made that only 15 percent of total requirements of 100 such professionals needed annually were graduated in 1970 and that by 1974 - 40 graduates annually were anticipated. By 1975 - 700 students were expected to be enrolled in the Faculty of Agronomy.

AID funds for strengthening the Faculty of Agronomy were allocated to a scholarship program (\$400,000); a technical assistance contract with one or more U.S. universities to develop curricula, train faculty and assist in research (\$625,000); and equipment for the Faculty of Agronomy (\$175,000); for a total of \$1,200,000 for funding until December 1975.

¹ Costa Rica: Agricultural Development Program, AID-DLC/P-916 (Ref.).
Section II.

The total 1973 GOCR Budget for the Faculty of Agronomy and related experiment stations was \$3,182,110 (\$374,365).

As of October 31, 1973, \$79,295 of the \$1,200,000 of loan funds had been disbursed and an additional \$780,705 committed.

Difficulties arose early in the project in connection with the negotiation of a contract between a U.S. university and the University of Costa Rica. The USAID states that problems have been resolved and that technical assistance is being provided.

Since competent and well-trained personnel are a critical element in the improvement of the institutional base for provision of services to the farmer, the activities which make up the agricultural education project are immediately and directly related to the objective of providing such a base. The Director of the CAN identified the lack of such personnel as a major bottleneck in the accomplishment of that objective and suggested that agricultural education was perhaps the priority need in the ADP at its present stage.

B. TWO-YEAR AGRICULTURAL TECHNICAL SCHOOL

This activity in agricultural education provides support to an agricultural junior college which performs specialized training in agricultural sciences. Its output of mid-level agriculturalists is expected to meet the need for trained personnel who will be able to work in the Ministry of Agriculture as extension personnel or in the private sector in various capacities. This activity addresses the single largest problem of the agricultural education system in Costa Rica - the absence of an institution to produce mid-level semi-professional personnel, especially extension agents.

The target of the activity is to establish the training facility and to produce trained agriculturalists to assist in the overall ADP. While the Evaluation Team did not have adequate time during the study to visit the training facility, we understand that this activity is progressing well and on schedule, including disbursements under the loan. The first 48 students have graduated and are employed or are planning continuation of their education at a higher level. Four work in the MAG, four in the CNP, six in the banking system, ten in private enterprise and the remaining are either teaching or pursuing further study.

111. COOPERATIVE DEVELOPMENT PROJECT

This project provides \$3,550,000 in loan funds and \$2,400,000 in counterpart funds to be administered by the Cooperatives Department of the Banco Nacional de Costa Rica.¹

Five million dollars of the total funding is for credit to be re-lent to agricultural cooperatives (either federations, unions of cooperatives, or individual cooperatives), consumer cooperatives and the Savings and Loan Cooperatives Federation. The latter institution is the only one allowed to re-lend, through rural credit unions, to individual farmers for production credit. All other lending is to be for financing cooperative facilities, such as storage, working capital, transportation equipment, etc., except that farmers who have crops stored with their cooperative may receive loans on the stored crop.

Six hundred thousand dollars is to be used for technical assistance and training, \$250,000 for operating expenses, and \$100,000 for equipment.

By June 30, 1973, AID disbursements totalled \$1,245,483 and the GOCR had paid in 1,556,585 colones (approximately \$183,000). The April-June 1973 Quarterly Loan Report shows that for 1973 there had been approved loans totalling 5,422,261 colones for agro-coops, 2,715,230 colones for credit unions (apparently through Fedicredito), and 700,000 colones for consumer coops, for a total of approved loans of 8,837,491 colones (about \$1,040,000). The cumulative total for sub-loans was shown as 16,510,903 colones (almost \$2,000,000).

These data above provide little base for knowing what this credit is for. There is no information as to how much of Fedicredito's money goes to farmers as production credit² and how much is invested in cooperative

¹ This department has been converted into an independent institute (IEFOCOOP) as the result of recommendations made in a study which was required as a condition precedent to disbursement of loan funds to this project.

² The only information found was in the Jan-Mar 1973 Loan Report that stated that among the loans is one to Fedicredito for 2,715,230 colones (about 17% of total loans) for expansion of the "directed production credit program."

or group problems. In contrast the IRR, (See below) for a new loan proposed as a follow-on of the Cooperative Development (Loan-022) project specifies that the target group is the same as that of the General Credit activity of the (022) loan. The IRR states that the purpose of the loan is to encourage small farmers to participate in cooperative organizations to resolve their common problems.

In spite of our inability to provide a meaningful evaluation of experience under the cooperative development project, we are convinced that an appropriately structured and focused cooperative development project could serve a useful purpose in the ADP. First, we are convinced that it is appropriate to test a number of ways of providing the small farmer with the services he needs. Cooperatives may be one way in which such services can be provided effectively. Second, we point out that the experience of underdeveloped countries in attempting to increase agricultural production, productivity, and income through programs of agricultural credit and technical assistance provided, administered, and coordinated by governmental and other public institutions, and assisted by AID and other assistance providing institutions, has not been such as to permit unqualified optimism as to the probability of success of such programs. Certainly the experience is much better in those cases in which private organizations motivated by the incentive of making a profit out of the production and marketing of commodities produced by members (and in some cases with the added governmental motivation of urgent national necessity as in the case of countries such as Japan, Taiwan, and Korea) have provided an integrated package of technical assistance, input availability, marketing services, and credit to their members. A cooperative project, it appears to us, could be constructed on the model of the second approach and could serve as a means of testing such an approach against the first.

IV. MARKETING PROJECT

A. MANAGEMENT STUDY

The conduct of a study of the management of the operations of the National Production Council (CNP) is one of two activities which make up the marketing project.

A study conducted jointly in 1969-70 by a team of Costa Rican and U.S. technicians concluded that the private agricultural marketing system

in Costa Rica was reasonably efficient and adequate. The primary means of government intervention in the market is through the CNP which is mostly concerned with the marketing of basic grains. It fixes support prices; buys, imports, and sells grains; and maintains and operates storage and processing facilities. While some deficiencies in government marketing operations were identified, it was apparently felt when the ADP was being developed that most of these were being adequately addressed. One concern was, however, the fact that the CNP was losing money on its operational programs. A study of the management of its operations was thus included as one activity in the ADP.

That study, which has now been completed, consists of several volumes including studies of each of the following aspects of the CNP's operations:

- a. Modernization of the grain silos;
- b. Feasibility study for the seed processing facility;
- c. Retail Outlet Evaluation Report;
- d. Review of basic grains policies;
- e. CNP agricultural services and Credit Guarantee Study;
- f. Grain standards and controls, and a ten (10) year projection report.

Consistent with the approach of making the improvement of the operation of existing institutions the major purpose of the whole program financed by the AID loan, the study is aimed mainly at administrative procedures, physical facilities, and management and personnel supervision and control. We understand that the possibility of a loan for assistance in improving the national marketing system is being considered.

B. GRAIN STORAGE AND HANDLING FACILITIES

Apparently it was felt when the ADP was being developed that the program might have such an effect on yields and total production of grains as to require increased efficiency in CNP's handling of basic grains and some increase in its grain storage capacity. The AID loan thus contained \$750,000 for the purchase of equipment for handling, drying, and storing grain at CNP's central storage plants and for constructing and equipping a new drying facility.

Since the conduct of the CNP management study and GOCR reaction to it was made a condition precedent to disbursement for the storage and handling activity, no loan disbursements have yet been made for the activity. With the recent completion of the management study, plans are progressing for preparing designs and letting bids for construction.

The management study has resulted in some adjustments in the original plans for expansion of facilities, particularly the plans for expanding storage facilities in San Jose. Apparently these adjustments have resulted in a reduction of \$355,000 in the amount for the activity as shown in the loan agreement and its transfer to the seed processing activity in the agricultural services project.

V. LAND TENURE PROJECT

A. LAND TITLING

Two million seven hundred thousand dollars of the AID loan, plus \$1,200,000 of GOCR counterpart financing, is provided for titling and cadastral work. Two million five hundred seventy-five thousand dollars of the loan is to be used to finance a contract with the National Geographic Institute (IGN) for photogrammetric services, and \$125,000 for equipment purchases. Over the four-year life of the project, the Titling Department of ITCO is to carry out a cadastral survey on 660,000 hectares with titles being clarified and granted where required. An estimated 25,000 families will be benefitted.

Farmers receiving titles will pay direct costs involved over a three-year period. These vary from about \$18 for the first hectare to \$1 for each hectare over 100 hectares. The fund generated by these payments will be used to finance titling work in other zones.

The project was justified for inclusion in the sector program on the grounds that the small farmer must have registered title to his land if he is to have access to credit, since the banks require a land mortgage for most of their credit activities. Further justification is that with registered title the farmer assumes less risk when he invests in his farm. Perhaps another justification would be that clear title is a prerequisite to development of an active land market, especially for consolidation of small units.

By August 31, 1973, ITCO had registered 4,439 titles. This is approximately 18 percent of the four-year goal. The project appears to be adequately organized and functioning reasonably well. There is some shortfall in the provision of survey maps by the IGN under the photogrammetric survey contract. Although this probably will result in some delay in meeting the four-year area and titles goals, the matter does not appear to be serious.

According to ITCO records as of August 31, 1973, they had received from AID for this project a total of 6,672,870.27 colones and had expended 6,644,797.42 colones under the contract with IGN.¹

Counterpart fund expenditures for 1972 totalled 555,803 colones which financed the operations of the titling and cadastral division of ITCO². Figures for 1973 were not available.

B. GUARANTY FUND FOR LAND PURCHASES

This innovative project is designed to accelerate the private sale by owners of larger tracts of land to groups of peasants or squatters. A \$1,000,000 Guaranty fund administered by ITCO is provided for in the loan agreement, \$750,000 to come from the loan and \$250,000 from a GOCR counterpart contribution.

The fund is to be used to guarantee to the seller installment payments to be made by the buyer group under a land sale contract. The scheme was included in the loan because of knowledge of numerous instances of large landowners willing to sell their land on time (10 years or so) to small farmers, workers, cooperative groups or squatters on the land, if they could be assured of receiving payment.

As of September 30, 1973, the Guaranty fund had a total deposit of 2,054,274.70 colones of which 1,500,000 were from AID loan funds, 431,412.00 from ITCO and 122,862.70 from interest earned from investment of the fund.

¹ See "Informe Sobre Actividades Realizadas Durante el Mes de Agosto de 1973, "Departamento de Titulacion, ITCO, 27 Aug 1973.

² See "Informe Anual de Labores Correspondiente al Año 1972," ITCO, Junio, 1973.

At that time five groups had purchased farms on land installment contracts from the seller. The total value of land purchased was 2,035,000 colones, slightly under the amount of the Guaranty Fund. However, the amount guaranteed by the fund totalled only 1,425,400.00, the difference being cash down payments and installment payments already made.

No disbursements had yet been necessary from the fund. This may be due mainly to the fact that such a short time has elapsed that few installment payments have yet come due. ITCO indicated that at least one of the groups (the first) is having financial troubles. They attribute this to the fact that the land area purchased was too small for the size of group. ITCO feels that they had gained sufficient experience to avoid such a situation developing in subsequent operations.

With some additional experience ITCO should soon be able to clarify reserve levels required for guarantee purposes, thereby allowing guarantee levels that are multiples of the amount of the fund.

It appears to us that the responsible division of ITCO has developed adequate procedures for processing applications, analyzing feasibility, arranging production credit and technical assistance, etc., as required under the terms of the loan agreement. They presently are in various stages of processing another 73 applications of groups for participation in the Guarantee plan.

Experience to date indicates two major problems that will make it increasingly difficult for ITCO to complete sales agreements and operating credit arrangements:

- (1) The sellers are insisting on down payments considerably in excess of the capacity of the buyer groups to raise cash among themselves. Forty percent seems to be what most sellers insist upon as a down payment. ITCO has found that if the seller agrees to a lower down payment, he inflates the sale price of the land beyond its productive capacity, and ITCO cannot approve the sale since it would not be economically feasible for the buyers.
- (2) Because of the low equity position of the new land-owning group vis a vis their farm, the SBN is reluctant to provide operating credit.

Although the buyer group is required to make the land purchase as a single juridical person (i.e., they must form themselves as a legal entity -- cooperative, legal association, corporation, etc.), they are permitted by the regulations governing the fund to assign individual plots to their members, if the group elects to do so. It is interesting to note that of the five groups presently operating newly acquired lands, none have elected to make individual assignments of plots.¹

Although operating experience is of short duration to date, we conclude that the obvious social appeal and possible economic benefits to some rural peasants is such that the USAID should make every effort to assist the GOCR in resolving the problems described above. We recommend consideration of the following alternatives:

- (1) That the Land Sale Guaranty Fund be made available to guarantee medium-term bank loans to be used for making part of the down payments to sellers, in those cases where the projected land debt service capability of the project is such as to cover both the installment on the land sale contract debt and the down payment loan re-payments. Consideration should also be given to the possibility of making some part of the funds available for loans to cover a part of the down payment. To the extent that the seller tends to accept a lower purchase price with a higher down payment, the total land debt payment burden will be reduced.
- (2) That these groups be provided special access to the production credit Guaranty Fund during the first two years of their operation, in order to overcome the hesitancy of the SBN to make production loans to them.
As additional experience is gained, the results should be analyzed in depth to determine the feasibility of converting and expanding the fund into a guarantee or financing system for sales of smaller tracts to existing small farmers or to rural peasants without land.

¹ This is of considerable interest in view of the popularly felt notion that Costa Rican small farmers are fiercely independent and do not tend to cooperate. The Sub-Director of ITCO indicated that ITCO had fully expected the opposite result.

It has been suggested that:

- (1) The fund must be permanent in nature since the guarantees are long-term in nature.
- (2) The fund should exist as a segregated "trustee-type" account for psychological reasons, so the seller can see that the claim he has is backed directly, and not just by a government promise. This means that the cash must be paid into the fund and that fund investments must be sufficiently liquid to be converted into cash quickly to cover any unusual runs on the fund.
- (3) The permitted investments by the fund should be earmarked for loans to small farmers, especially medium term land improvement loans.

These suggestions are reasonable and appear to us to be consistent with the objectives of the fund. In fact, we feel that without the first two, the ability of the fund to function will be impaired. The third suggestion is consistent with the agricultural development program in general. However, a system would need to be developed that would allow the fund manager to maintain top earnings from fund investments, consistent with acceptable risk levels and liquidity requirements. If the BNCR were willing to take on the responsibility of assuring fund liquidity by borrowing (in effect) on a demand note for relending to small farmers for medium term land improvement loans, this probably would be adequate. The question arises as to whether the BNCR would be willing to borrow from the fund for these purposes and pay the same rate of interest as can be obtained from investments in Government bonds (8%). Further discussions with the BNCR and the GOCR should be in order to determine if a feasible arrangement could be made.

VI. COMMUNITY ORGANIZATION PROJECT

This project of the Agricultural Sector Program provides support to community development and municipal development activities at the national and regional levels. The rationale for its inclusion in the sector loan was the recognition of the need for greater participation of local governments in rural development efforts to improve the rural environment. The purpose of the project was stated to be to increase

the capacity of the National Office of Community Development to provide training and supporting assistance necessary to make community development a stronger force in rural affairs, prepare members to participate in community development activities and improve the general environment of cooperation and coordination of national and regional agencies and local governments engaged in such activities.

While no specific targets were established for the project, actions anticipated were to decentralize the NODC and its personnel to 12 regional centers, develop annual plans, provide training programs for national and regional officials and local participants, and provide technical assistance for socio-economic research and training.

Because of time limitations our study of the project was restricted to secondary sources of information. We understand that the project has been engaged in organizing the administrative structure for promotion of the community development activities in general, has developed methodology and philosophy and conducted promotional activities of various sorts (including radio) to "spread the word."

In commenting on a draft of this report the AID Mission states that "the importance of the rural environment and what community associations can do for local farmers is the key aspect of the small farmer and agricultural modernization process." However, it seems clear that any influence on the farmer's welfare will be indirect and very long run in its impact. We thus suggest that the priority of the project be examined in relation to other program elements in the loan and in relation to possible programs for increasing small farmer participation in associations designed to benefit him directly as, for example, marketing cooperatives or producer associations.

CHAPTER 5

THE CREDIT PROJECT

Prior to development of the ADP, AID made three agricultural credit loans (\$15 million) to the Juantas Rurales Department of the National Bank. In developing the ADP, however, it appears that it was felt that additional and changed programs were necessary to (1) increase the number (which had become static) of farmers receiving credit; (2) increase the amount of credit going to small farmers; (3) increase the amount of credit going for short term production loans as opposed to that going into investment, and (4) direct small farmer credit to priority crops rather than livestock. In addition, it was desired to make the program more flexible through relaxed requirements for security for loans and through competition among banks as a result of inclusion of other banks in the program. To accomplish those purposes, a credit project consisting of a general credit activity and an incentive guarantee activity was set up in the program.

1. GENERAL CREDIT ACTIVITY

This sub-project's purpose is to increase the availability of credit to small and medium farmers and to increase the number of small farmers receiving credit for production purposes. The sub-project is financed by \$3,500,000 from the AID loan and \$3,500,000 equivalent (23,170,000 colones) from GOCR counterpart contributions

The funds are received by the Central Bank of Costa Rica and re-lent to the four banks of the National Banking System at 3 1/2% for the first five years, 2 1/2% for the second five and 3 1/2% thereafter. The banks lend to small and medium farmers at 8%. No AID funds are to be used for coffee, cotton, sugar cane, beef or bananas. Priority crops and products include basic grains, fruits and vegetables, dairy cattle and products, and poultry and eggs. A list of crops eligible for credit is developed annually through the CAN mechanism and approved by AID.

The four banks operate throughout the country via some 90 branch offices, with the BNCR being by far the largest (about 27,000 agricultural loans as compared to less than 8,000 for the other three banks combined).

Disbursements of both loan and counterpart funds took place rapidly. By May 31, 1972, virtually the full colones equivalent (23.2 million colones each) had been disbursed by AID and the BCCR.¹ By October, 1973, according to the October, 1973, ATAC Evaluation Report, 51.5 million had been relent to small and medium farmers.² Additionally, loans to small and medium farmers under the banks' own programs had increased considerably as evidenced by the fact that total credit to small farmers increased from 183 million colones in 1970, to 367 million colones by October, 1973.

By far the largest amount of credit has gone for the production of rice. Dairying is next in size in terms of amount of credit extended. Corn comes in a very poor third. Other crops have received almost negligible amounts. In terms of numbers of loans, corn is in first place.

The Central Bank imposes a system of "topes" (upper lending portfolio limits) on certain categories of loans, and leaves other categories without limits. Small farmer credit has been open-ended. This undoubtedly has influenced considerably the recent rapid growth of the small farmed credit portfolio within the SBN (National Banking System).

Loan conditions require that the SBN increase its loan portfolio for small farmer credit by 5% per year. The SBN has far exceeded that figure. Data shows that for the period from December, 1970 to October, 1973, outstanding loans to small farmers increased from approximately \$22 million to \$43 million, a 95% increase. AID loan funds accounted for only about 16% of that amount of increase. Further, small farmer credit increased as a percentage of total agricultural credit. AID progress reports show an increase from 11% in 1970 to 21% in 1971

¹ The program called for 23.2 million colones from AID and the same amount from the Central Bank. Since AID disbursed at the highest current exchange rate, and that changed from 6.62/\$1 to 8.5/\$1, AID still retained \$600,000 at this date.

² This additional amount apparently has come from initial use of the Incentive Guaranty Fund for general credit, and from the excess authorized dollar loan funds now approved for use in general credit. See progress report Apr-June, p. 43.

to 26% as of June 30, 1972.¹

Also, figures in the progress report indicate that more small farmers are being reached. In the AID financed project, out of about 1,500 loans made to small farmers, about 550 (36%) were to clients listed by the banks as new clients.

In summary, it would appear that the purposes stated in the loan documents have been achieved:

- (1) Availability of credit to small farmers has greatly increased;
- (2) The number of small farmers receiving credit has increased.

It appears that lack of resources for small farmer credit was not a significant constraint on the achievement of such results since the SBN provided 84% of the increase in lending to small farmers. However, persons involved in the program indicate that the AID loan acted as a catalyst and was a necessary element to bring about such increases.

In 1973, AID financed a survey of SBN and AID funded small farmer credit program clients. An adjusted random sample of 617 credit users was drawn, including clients of all banks in all regions (where appropriate) in both programs (regular SBN small farmer portfolio, and the AID financed program). The survey results give some detail on characteristics of AID/SBN clients and other SBN clients. On the basis of size of farm and gross capital, a relatively large proportion of the farmers tend to be medium sized instead of small. For example, 38% (24% for AID/SBN clients) have more than 20 manzanas (35 acres), 45% (30% for AID/SBN) have gross capital of more than \$6,000 and 25% (12% for AID/SBN) more than \$12,000; average net family incomes run close to \$1,000 per year, with ranges from negative incomes to over \$20,000).

By comparison, 17% (24% for AID/SBN) of the borrowers had farms of less than 2 manzanas (3.5 acres), and 17% (28% for AID/SBN) had gross capital under \$1,200.²

¹ See Progress Report, April-June, 1973, p. 41. And "The Agricultural Credit Project of the Agricultural Sector Program of Costa Rica," A. Brown, AID Spring Review, Vol. II, February, 1973, No. SR 102, AID/W, p. 39.

² Preliminary results "Survey of Clients of the National Banking System, November, 1973, USAID/CR. The "Gross Capital" figures are shown as "gross income." However, when compared to the computer printout, they appear to be figures for "gross capital" ("Capital Bruto").

About 25,000 small and medium farmers receive loans from the national banking system.¹ The 1973 census shows some 79,000 farms. There are an estimated 65,000 rural family dwellers on plots too small to qualify as farms under the census definition. This latter group is not excluded from the small farmer target group of the credit programs. Of the 79,000 farms, some 15,000 are estimated to be too large to qualify (total debt in excess of \$12,000). Thus, theoretically some 129,000 farmers would constitute the target group. Of course, a large proportion of the 65,000 small plot holders probably raise only a garden, and are essentially rural workers.

Nevertheless, it would not be unreasonable to estimate the target group at 100,000 farmers at most. On this basis it might be estimated that roughly 25% of the target group is being reached by the banking system. It may be that the effective target group is smaller and the percentage reached higher. This is undoubtedly a great accomplishment.

Unfortunately, however, it is not possible to reach conclusions as to the effects of the program in income and production terms or as to whether funds might be more effectively spent on different types of programs. The initial studies did not provide the analysis or objective criteria required for selection of activities based on considerations of trade-offs involved among alternatives. As indicated in Chapter 2 the few studies which have been conducted of income effects of activities similar to those included in the ADP are inconclusive.

The 1973 survey of SBN and AID funded small farmer credit program does not provide information which is helpful in appraising the extent to which credit affects the economic condition of the user.

A study was made in 1966 of 193 small farmers who were clients of the National Bank of Costa Rica. These farmers were selected by the branch banks from among those clients who had borrowed for at least five (5) years. Thus, high risk borrowers and sporadic credit users were eliminated. An attempt was made to determine the resulting net

¹ There are more total loans made to small farmers, but many receive more than one loan (e.g., a crop production loan, and a livestock loan).

worth change from 1955 to 1966 for this "elite" small farmer clientele. On the average, the net worth was \$4,973 in 1955 and had increased to \$14,625 in 1966.¹ This change apparently is in current colon equivalent. If so, price increases have not been accounted for. Further there is no way to determine to what extent net worth was increased through investment of off-farm income.² What can be said is that for this sample of those small farmer clients that showed themselves successful over a five to ten year period, net worth including any on-farm investments that may have been made from off-farm income, almost tripled.

In contrast, a 1964 study by the Central Bank³ led that institution to the conclusion that in general (except for coffee) small farmers who had been using bank credit for twenty (20) years or more had not increased their incomes at all. The bank concluded that this was because the credit did not result in productivity increases.

A recent survey by an AID financed IICA management study group casts doubt on the existence of positive economic and production benefit to some farmers receiving credit.⁴ This is not to say that the survey results are definitive. However, the results from this survey, the 1964 Central Bank Study, the lack of positive responses in national production of small farmer crops, etc., leads to the conclusion that a first priority activity under the program should be to find out. We so recommend.

A continuing survey and study process for finding out should be carefully designed and the results analyzed in a way that can pinpoint the reasons for lack of income and production response when it exists.

¹ See AID Spring Review Study referred to earlier, pp. 43-46.

² Recent data, referred to later, indicates that more than 50% of small farmer SBN customers' incomes is earned off-farm.

³ See reference in AID 1973 Spring Review paper by Gonzalez, p. 81.

⁴ See Chapter 2 for a discussion of this study.

II. INCENTIVE GUARANTEE FOR PRODUCTION CREDIT

This project creates an experimental fund within the Banco Nacional de Costa Rica (BNCR), which, according to the loan agreement description, was to guarantee advances on inputs made by input supply companies to small farmers still using traditional methods of production.¹ If the farmer was unable to pay due to lack of sufficient increased production to pay costs, the fund was to be used to reimburse the input supplier. Such operations could be guaranteed for the same farmer for only two years. He would then turn to the general credit program for financing.

The AID loan was to finance \$750,000 and GOCR \$250,000 for a total to Guarantee Fund of \$1,000,000. The scheme was conceived as a temporary device (three years) in order to provide a means for inducing an estimated 5,000 new farmers to use credit for modern production inputs.

To date disbursements to the fund total \$579,347 from AID loan funds, and the equivalent of \$50,302 from the GOCR.

The manner in which the fund operates is considerably different from the scheme as originally conceived. It was soon found that input supply companies had no interest in providing small amounts of inputs to small farmers and committing themselves to provide technical assistance, as well. As a result, the BNCR is making the loans directly to small farmers, including 4-H members who take on projects of sufficient size to be considered economic. As of August 31, 1973, there had been a total of 3,798,000.00 colones disbursed to the fund, and 2,915.90 colones had been charged to it, as the result of crop losses by four small farmers. Losses were the result of heavy rains in one case (for beans) and high winds (in tobacco) in the other three. The losses were partial and, as a result, the farmers were able to pay from 40% to 76.5% of the principal of their loans.

Outstanding loans at the end of August, 1973 amounted only to 1,326,696.25 colones, about 23% of the disbursement to the fund.

It is recognized by the BNCR and USAID that operations under the fund have been moving slowly. This is to be expected in view of the fact that the farmers who are eligible are very small and have not

¹ The companies were to provide technical assistance as well.

previously had experience in the use of inputs. For the scheme to work rapidly within this clientele, a considerable amount of technical assistance time obviously is required. Bank agents and MAG extension staff have a wide range of responsibilities which limit their ability to bring more small farmers under this fund.

The manager of the fund indicated that new efforts are being made to increase the number of farmers under the fund. He feels that any increase must come from BNCR and MAG staff efforts.

We recommend that the fund be continued for an indefinite period of time beyond the anticipated three years, and close records be maintained on performance. At the same time, we suggest that alternative methods be explored for making the Incentive Guarantee fund more effective. Examples of possible alternatives are given below.

The fund might be administered by the National Insurance Institute as an expanded coverage under its regular crop insurance program for crop loss due to "fuerza mayor." Such expanded coverage would be for "technology package recommendations" that proved unreliable and the fund would pay out in cases where MAG recommended new improved inputs or combinations of technology did not achieve expected results.¹

It might be used to bring about the use of "technology packages" on "demonstration farms" selected by MAG staff from among "leader farmers" of a wide range of small and medium farmer types. To be eligible, the farmer would be required to commit himself to the entire set of recommendations, allow access by neighboring farmers to observe progress and results, and allow field days as appropriate.

Farmers would be selected from among small to medium groups, using traditional to modern technology, where a significant departure from usual practices is to be required. Participating farmers might serve as a conduit to more rapidly disseminate new technology or practices onto farm, test new technology under varying conditions, and overcome some existing shortcomings such as lack of adaptive research areas and facilities.

A program might be operated through cooperative groups that include a large proportion of small farmers, with the fund serving an insurance role at the cooperative level for input payment losses suffered as the result of farmer member production losses or failures to reach anticipated

¹ Yield increases sufficient to cover added costs.

levels. due to conservative lending policies of the banks. It was asserted for example, by the Vice-Minister of Agriculture that farmers were investing only about \$30/manzana in inputs for improved corn production instead of \$120 because the banks would lend only \$25-\$30/manzana. His assertion is that the \$120/manzana is a reliable level needed for significant production increases.

If this is true, then it appears that perhaps both the banks and the farmers now using improved inputs should be induced to intensify that use greatly. The incentive guarantee fund might be expanded to cover this type of intensification effort by small and medium farmers and bankers. Again, a premium might be charged the successful ones.

Since the fund is experimental, necessary resources should be provided to keep proper records of activities and results and for comparative analysis of results in relation to other program activities.

CHAPTER 6

CONCLUSIONS

The manner in which the ADP and the loan in support of it was developed represents a common sense, pragmatic approach which has much to recommend it as a practical method for analysis of a sector and development of program strategy and content. In oversimplified terms, its major elements were (1) a survey and description of the sector and its characteristics; (2) an identification of those portions of the sector in which performance was lagging and in which there was a need for improvement to help the whole sector perform acceptably and to improve the well being of a substantial portion of the rural population; (3) a postulation that (a) poor performance in the identified portion of the sector resulted from the farmers' lack of knowledge as to production technology and methods which he should apply and lack of credit for financing the required kind and quantity of production inputs; and (b) the primary constraints on providing the farmer with the requisite knowledge and credit were weaknesses in the organization and management of the institutions involved in coordination among them in the development and implementation of programs; (4) the conduct of a series of partial analyses to obtain evidence as to the validity of those hypotheses and to identify means of removing such constraints or reducing their effects. While not a part of its conceptual framework, another important element of the approach was the use of joint AID/Costa Rican personnel for conduct of the analyses.

The basic program concept and strategy which was developed is prima facie logical and internally consistent. If the objective is to increase production in the sector through programs administered by governmental agencies, under the circumstances which exist in Costa Rica in which the larger farmer and primarily export-oriented portions of the sector are performing well, choice of those farmers who produce primarily for the domestic market, and are relatively small in size and yet are not so small as to be a non-economic enterprise as the target population is reasonable. Similarly, uncertainty as to exactly what crops should be

produced and as to production responses under varying circumstances and the openness of the Costa Rican economy system make the decision to adopt a strategy under which credit, technical assistance, and production inputs are made available to the farmer but the choices as to their utilization is left to him, a sound one. In a situation in which the continuation of expanding export markets and high export prices could not be considered assured, it was also reasonable to plan to "take out some insurance" by attempting to increase production in the domestic market oriented portion of the sector.

If the hypothesis is accepted that the timely provision to small farmers of credit and technical assistance will increase their productivity and income, then it is reasonable to concentrate on programs which will increase the ability of institutions to provide such credit and assistance effectively and efficiently and which will expand the volume of the credit and assistance provided. Some evidence was obtained in the studies conducted in connection with development of the program which supported that hypothesis. Further, the studies did identify deficiencies in the institutional ability to deliver the services to the farmer.

The principal deficiencies we see in the analytical method used and the concept and strategy adopted are: (1) Alternative approaches, either in terms of means for improving the economic and social condition of the small farmer, or of means of providing him with services considered to be required, were not analyzed in any depth. It was not possible to say that the approach adopted was better than other practical ways of improving the small farmer's economic and social condition or that the approach to obtaining improved delivery of services was superior to other ways of delivering such services. (2) There was not built into the concept and approach an element of skepticism as to the certainty that the expected increases in production and income would flow from the coordinated provision of credit and technical assistance. This resulted in failure to incorporate into the program adequate provision for evaluation of alternative methods and evaluation of results with a view to modifying methods or, if necessary, adopting a new course and strategy. We recognize that it is plausible to argue that it is better to get started with a program which preliminary analysis suggests is

reasonable without waiting for time-consuming analyses of alternatives. We do not quarrel with a decision to start on such a basis. We do feel strongly, however, that when such a decision is made it should be accompanied by provision for analysis of alternatives and in-depth examination of the validity of the original analysis and hypotheses as the program proceeds. This is particularly true when, as in this instance, the original analysis was not wide-ranging and in great depth nor completely conclusive, and when experience with programs in other countries similar to those developed has not over a period of considerable time been such as to permit confidence as to their success.

We recognize the constraints of time and other demands for resources which make it difficult to prepare, prior to the making of a loan, a definite, reasonably complete documentation of the analysis leading up to the program which the loan supports, of the alternatives considered and the reasons for the acceptance of some and the rejection of others, of the rationale underlying the approach and strategy adopted, and of deficiencies and difficulties seen in it. We are also convinced that the present AID procedures for considering sector loans are not conducive to such documentation. Nonetheless, such documentation, which was not prepared in this case, is essential to effective consideration of issues involved in sector loans, to that understanding of purposes and objectives which is essential to effective program implementation and evaluation, and to the ability to make program changes as experience may indicate a need for them.

Finally, it appears to us that it would have been desirable, if possible, to have had, in addition to the Costa Rican group working under an AID contract, personnel from the Costa Rican government and other Costa Rican agencies involved in the program development process and far more of a leadership role to have been played by them.

The statements of program purpose contained in both regular and special reports prepared under the program, the emphasis given by Costa Rican and Mission personnel in discussions with them, the factors being considered in progress and evaluation reports as indicators of success

or lack thereof, and an evident low level of concern for and interest in determining impacts on the participating farmers, all lead us to the conclusion that in fact and practice the operationally relevant objective of the overall program has become that which was set up in the annex to the CAP as being the objective of the Agricultural Services Project, that is, provision of "a public sector institutional framework organized and provided with the necessary resources to carry out a sector program whose small farmer focus places a heavy burden on public planning, programming, and technical assistance efforts." While the ultimate goal of the program is implicitly accepted, it has had little operational significance and the proposition that if a program of providing technical assistance and credit to the small farmer is operated in an efficient and coordinated manner, his income and well-being will be improved, has come to be accepted as an article of faith.

The program contains provision for periodic evaluations of progress and regular evaluation reports are prepared. The evaluations are in terms of inputs and intermediate outputs such as funds expended, credit extended, persons trained, additions to staff, etc. Evaluations have not been extended to cover outputs such as production, productivity, and farmer income changes or to cover results in terms of indications of improved coordination or increased efficiency. Interest has yet to develop in extending evaluations to consider such results and outputs. Perhaps the following statement from the Country Program Paper cited earlier is significant in this regard:

"It is recognized at the outset that the long-term objective of transforming the traditional small-farm subsector to modern, highly productive practices will not be achieved during the four-year span of loan disbursement. However, it should be possible to strengthen the national institutional capability to serve the small farmer effectively, by selectively reinforcing institutions, by providing a mechanism for coordination among them, and by establishing within them a cognizance of the need to improve the status of the small farmer."

The functional areas covered by the 7 projects included in the program and assisted by the loan are inclusive enough to provide the basis for a broad program directed at improving the economic position

of the target population. However, they are not comprehensive enough to address the problems of that portion of the population living on small plots. In addition, while the number of activities, included in the projects, is large, they do not provide for a complete program in each project.

The grain and seed laboratories, the seed processing facilities, and the food technology laboratories seem to be activities which have utility in themselves. However, they seem to be only peripherally related to small farmer problems. The emphasis on them in terms of relative resource inputs seems disproportionate to other activities, particularly in relation to the activity for strengthening MAG headquarters, which is considered to be of much importance, to which \$132,000 of loan funds is assigned as compared with a total of \$995,000 for those three activities.

The activities under the marketing project, consisting of a CNP management analysis and the provision of grain drying and handling equipment, fall short of being an integrated approach to meeting the small farmers' needs for marketing services. This is particularly true in view of the limited scope of CNP's marketing activities and the fact that the study seems to be related to problems of internal administration rather than roles and functions to be performed and services to be provided. We understand that the possibility of a new loan to assist in improving the national marketing system is being considered.

The program in implementation has remained basically unchanged from that contemplated when the loan was made. No new projects have been added and none have been dropped (although the possibility of new projects in agricultural and marketing services and cooperatives is being considered). There have, however, been some shifts in funds among projects. The coordination and evaluation activity has been increased from \$125,000 to \$250,000, and it appears that the seed processing facilities activity may have been increased by \$355,000 and the grain drying and handling activity reduced by the same amount. There have, however, been delays in implementation of all projects, except agricultural credit, and disbursements are running significantly behind the schedule contained in the CAP. Total disbursements were projected at the equivalent of \$11,655,000 at the end of 1973. As of October 31, 1973, total disbursements amounted to just under \$7,500,000.

Exchange rate changes account for some part of this shortfall. However, it is due primarily to delays in effecting the planned institutional changes and in getting certain projects underway as anticipated. Shortfalls have been greatest in the seed processing facilities and grain drying and handling activities on which there have been no disbursements and the agricultural education project on which disbursements have been less than \$80,000 as compared with a projected \$1,200,000. About 40% of the amount projected has been disbursed on the land tenure project and just over 50% of the projected amount has been disbursed on the community organization project.

In view of the regular progress reports made under the loan and the annual evaluations made of progress in establishing and strengthening the institutional base for assisting the small farmer (one of which evaluations has just been completed), we have made no attempt to examine this aspect of the program in depth and those reports should be referred to for information as to specific progress in this area. However, examination of those reports and our own observations convince us that, even though the program is considerably behind schedule, substantial progress has been made in establishing and strengthening the institutional base for providing services to farmers as was contemplated. Our concerns with respect to that aspect of the program are indicated below.

Our observations and discussions have led us to believe that to date CAN and the CANcitos have had limited influence in the coordination of overall ADP activities. A similar conclusion can be drawn from the IAIAS April 1973 report, "Management of the Agricultural Development Program of Costa Rica" previously referred to. That report concludes that there is no planning or programming at the regional level in which all concerned organizations participate, nor a program for joint activities. We did observe however, that CAN and at least one CANcito were attempting to develop such programs.

This situation is probably the result of many factors. First is the fact that the reorganized CAN and the CANcitos are relatively new and require time to become effective. Second, may be the fact that CAN has no legal basis for obtaining acceptance of its programming and coordination of activities of the institutions engaged in the program. An

attempt to change that situation is being made with substantive legislation proposed to establish CAN's role and function. This legislation is, however, quite controversial and it remains to be seen what, if anything, will eventuate from this effort. More fundamental than any of those, however, may be the fact that CAN as an interagency body is required to attempt to determine policies and coordinate programs and activities of entities which have their own mandates and autonomy. This probably is further complicated by the fact that such entities, especially the banks, are required to serve all segments of agriculture, not just the small farmer subsector, with possible different demands and priorities. Finally, there are problems of the effectiveness of internal coordination within the individual agencies which still further complicate the problem of inter-institutional coordination. Thus, while we do not despair of a worthwhile coordination role being played by the CAN/CANcito structure and recommend continued support of strengthening it, we are convinced that too much dependence is being placed on its success as an essential element in the overall success of the program and that there is need for building into the program provision for careful and continuous evaluation of its progress and for searching for and experimenting with alternative programs, the success of which are not so heavily dependent upon inter-institutional coordination in planning and implementation. Integrated programs operated by existing producer organizations, cooperatives, and similar institutions might be possibilities.

The other major area of concern is that of the Ministry of Agriculture itself. The Ministry has been restructured through the appointment of two Vice Ministers and a Director of Operations in order to improve internal coordination. However, we have the impression that much remains to be done to achieve the needed degree of internal coordination. A similar conclusion seems to have been reached in the IAIAS report referred to above. A similar impression is also gained from other reports.

Progress has been made in reorganizing and equipping the regional offices of the Ministry. However, the director of the regional offices remains a Director of Extension Services, responsible to that service in the Ministry rather than a Director of Regional Operations responsible to the Director of Operations in the Ministry.

The program does not contain any activities directly related to the planning and analysis capability of the Ministry. That function is being performed minimally and suffers from lack of clear delineation of authority and responsibility between the MAG and the CAN Secretariat. We consider this lack of an effective planning and analysis capability to be a major weakness of the Ministry and of the program.

AID's assistance under the loan to the strengthening of the Ministry has consisted of the provision of a major amount of office and other equipment and vehicles to the regional offices and small amount of such equipment and vehicles and technical assistance to the central office of the Ministry, primarily to the newly established Public Information Office. Some technical assistance, apparently primarily in the form of advice or organization, seems to have been provided under the grant program and indirectly through the coordination and evaluation activity which primarily relates to assistance to CAN. It does not appear that any assistance has been provided in connection with strengthening the role, function, and capability of the Ministry in connection with planning and analysis. We consider this to be of at least equal importance to the CAN function and deserving of at least equal emphasis and even greater support and assistance.

ANNEX I

Suggested Specific Pilot Programs

A. Area Development Project

1. Select an area within a region that has the following characteristics:
 - a. A significantly large proportion of the farmers in the area are within the target group.
 - b. Agricultural resources are being used at a level of intensity significantly below their potential if a known package of technology were applied for the different types of production existing in the area.
 - c. The area is an economic unit in the sense that it is within the area of influence of a "Growth Pole" or set of growth poles.
 - d. The area is reasonably uniform ecologically
2. Do an economic and sociological survey of the region (all sectors).
3. Analyze the information to determine the alternatives available to the agricultural and non-agricultural sectors for equitably distributed economic development. From this analysis, establish an "area development plan," including investment, manpower, policy and public service requirements.
4. In conjunction with the private sector, develop an implementation plan, including organizational structure, and joint and several responsibilities.
5. Finance, staff and execute the plan.

B. Government and Cooperatives Services Integration Project

At the regional or sub-regional level, seek out those farmer cooperatives that appear to be basically solid and viable. Develop agreements between these cooperatives on the one hand, and government agencies (MAG, CNP, banking system, etc.) and/or private companies, on the other, whereby these cooperatives develop "Farm Service Centers" from which the farmers may receive the full range of supplies, market and other

services required for assuring production and income increases.

The concept involved would be that of coordinating services through a single institutional structure, the cooperative. These cooperatives would act in effect as the field agents, field offices and local supply and market point for the government agricultural service agencies, private suppliers and production buyers, etc., thereby having government and national private company activities function at the "wholesale" level and the cooperatives function at an integrated "retail" level.

C. Pilot Project in "All External Risks" Crop Insurance, through the National Insurance Institute (with appropriate Government Agency Guarantee)

In a selected region or sub-region, utilize the production Incentive Guarantee Fund in conjunction with normal crop insurance provided by the National Insurance Institute to insure against all risks (except farmer negligence in following instructions or caring for his crop), including non-performance of officially recommended technological packages; coverage would be for added costs of the package, plus value of any production loss over the previous year's record of production for the insured field.

An initial system of premium payments would need to be established, in addition to service guarantee contracts, either with the responsible government agencies on a priority basis, or their approval of services to be provided by cooperatives or private sources.

Two types of farmers would be insured:

1. Farmers who are moving from a traditional method of farming to the use of modern inputs and practices.
2. Farmers who have been using an intermediate level of modern inputs, who are moving to a significantly more intensive level of inputs.

D. Expansion of the Land Sale Guarantee Fund for Financing Farm Enlargement Purchases by Individual Small Farmers

This probably would require generation of funds for land mortgage financing, at least in part, since many of the sellers might be small plot holders who are selling out. This might well require some form of bond issue sponsored by the ACCR or other appropriate government agency. It may be that ITCO could use its bond issuing power for this

purpose. Perhaps, initially, while experience is being gained, a pilot area could be selected and the existing fund could be used to directly finance such purchases up to a fixed percentage of the total fund.

LIST OF ACRONYMS

ACA	Academia de Centro-America
ACM	Associated Colleges of the Midwest
ADP	Agriculture Development Program
BCCR	Central Bank of Costa Rica
BNCR	National Bank of Costa Rica
CAN	National Agricultural Council
CANcito	Regional Agricultural Council
CNP	National Production Council
Fedicredito	Savings and Loan Cooperatives Federation
GOCR	Government of Costa Rica
IGN	National Geographic Institute
INFOCOOP	Institute for Cooperative Development
ITCO	Institute for Lands and Colonization
MAG	Ministry of Agriculture
Ofiplan	National Planning Office
SBN	National Banking System
UCR	University of Costa Rica
IAIAS (IICA)	Inter-American Institute of Agricultural Sciences