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PROJECT PERFORMANCE AUDIT REPORT

COLOMBIA FIRST AGRICULTURAL CREDIT PROJECT

(LOAN 624-CO)

November 23, 1977

Operations Evaluation Department

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LIST OF ABBREVIATIONS

CP	IBRD/FAO Cooperative Program
INCORA	Institute for Colonization and Agrarian Reform
CAJA	Agrarian, Industrial and Mining Credit Bank
PBs	Private Participating Banks

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Project Performance Audit Report  
COLOMBIA FIRST AGRICULTURAL CREDIT PROJECT  
(Loan 624-CO)

PREFACE

The report presents the results of an evaluation of Loan 624-CO, signed in June 1969 for US\$17.0 million and closed, fully disbursed, in June 1975. The loan is identified with the Agricultural Credit Project, though it included a minor amount (US\$0.9 million) for an unrelated irrigation feasibility study. The Agricultural Credit Project was one of those reviewed in 1971 by the then Operations Evaluation Division in its general study of Bank activities in Colombia.

The report consists of a Project Completion Report (PCR) by the Latin America and the Caribbean Regional Office, dated September 1976, and a covering Memorandum prepared by the Operations Evaluation Department. The Memorandum was based on the PCR, an examination of project files, discussions with Bank staff involved in the project, and a visit to Colombia in May 1976.

The audit established that the PCR is reasonably comprehensive with respect to the principal issues with which the Bank was concerned during supervision. The Memorandum summarizes and comments on the PCR findings. It also discusses other issues central to the concept of the project as appraised which are mentioned briefly in the PCR.

The kind assistance provided in Colombia to the audit mission, especially by INCORA staff, is gratefully acknowledged.



PROJECT PERFORMANCE AUDIT BASIC DATA SHEET  
COLOMBIA FIRST AGRICULTURAL CREDIT PROJECT (Loan 624-CO)

A. <u>Amounts (in US\$ mln)</u>				<u>As of 28 FEB 77</u>	
		<u>Original</u>	<u>Disbursed</u>	<u>Repaid</u>	<u>Outstanding</u>
Loan 624-CO		17.0	17.0	3.1	13.9
B. <u>Project Data</u>					
	<u>Original Plan</u>		<u>Revisions</u>		<u>Actual</u>
First Mention in Bank Files					
- Cesar River Study					20 JUL 64
- Agricultural Credit					DEC 65
Government Application					24 FEB 69
Appraisal Mission					OCT/NOV 68
Negotiations					6-8 MAY 69
Board Approval					17 JUN 69
Loan Agreement					27 JUN 69 <u>a/</u>
Loan Effectiveness	19 SEP 69		1 NOV 69		3 NOV 69
Closing Date	31 DEC 73		31 DEC 74		30 JUN 75
Physical Completion					
- Cesar River Study	JUN 71				FEB 72
- Agricultural Credit	DEC 73				JUL 74/JUN 75
Percentage of Original Project Actually Completed					100%
Last Disbursement					26 FEB 76
Total Project Cost (US\$ mln)	42.5				42.1
Economic Rate of Return (%)	25				25
Number of Sub-loans	2500				8061
Number of Sub-borrowers	2500				2835

C. Mission Data

	<u>Sent</u>	<u>To</u>	<u>Month,</u>	<u>No. of</u>	<u>No. of</u>	<u>Manweeks</u>	<u>b/</u>	<u>Date of</u>
	<u>by</u>	<u>Review</u>	<u>Year</u>	<u>Persons</u>	<u>Weeks</u>	<u>Manweeks</u>	<u>b/</u>	<u>Report</u>
Identification I	IBRD	Cesar	JUN 64	2	2	1 <u>c/</u>		20 JUL 64
Identification II	IBRD/CP	Credit	DEC 66	3	3	9		27 FEB 67
Identification III	IBRD/CP	Both	APR 67	5	5	23		3 AUG 67
Preparation	CP	Credit	OCT 67	4	6	24		4 DEC 67
Follow-up Prep. I	CP	Credit	MAR 68	3	5	15		9 JUL 68
Follow-up Prep. II	CP	Credit	JUL 68	1	2	2		7 AUG 68
Appraisal	IBRD	Both	OCT 68	3	3-5	12		27 MAY 69
Total						<u>86</u>		
Supervision I	IBRD	Credit	SEP 69	1	1	1		10 OCT 69
Supervision II <u>d/</u>	IBRD	Cesar	SEP 69	3	0.4	1.2		19 NOV 69
Supervision III	IBRD	Credit	FEB 70	2	0.8	1.6		25 MAR 70
Supervision IV	IBRD	Credit	MAY 70	2	3	6		4 JUN 70
Supervision V	IBRD	Credit	JUN 70	3	1	)		6 JUL 70
Supervision VI	IBRD	Cesar	JUL 70	1	0.4	)	17.9	30 JUL 70
Supervision VII	IBRD	Credit	OCT 70	2	1.5	)		24 NOV 70
Supervision VIII	IBRD	Credit	MAY 71	2	1.5	)		20 MAY 71
Supervision IX	IBRD	Cesar	AUG 71	2	2	)		31 AUG 71
Supervision X	IBRD	Credit	DEC 71	2 <u>e/</u>	1	)	10.8	3 FEB 72
Supervision XI <u>f/</u>	IBRD	Cesar	FEB 72	4	1	)		n.a.
Supervision XII <u>g/</u>	IBRD	Cesar	AUG 72	1	1	)		n.a.
Supervision XIII	IBRD	Credit	FEB 73	1	2	)	11.7	16 FEB 73
Supervision XIV	IBRD	Credit	JUN 73	1	2	)		6 JUL 73
Supervision XV	IBRD	Credit	MAR 74	1	2	)	8.0	4 APR 74
Supervision XVI <u>h/</u>	IBRD	Credit	AUG 74	1	3	)		30 AUG 74
Supervision XVII <u>i/</u>	IBRD	Credit	MAY 75	2	4	)	7.7	18 JUN 75
Total						<u>9.8-56.1</u>		
Completion	IBRD	Both	NOV 75	1	1	1		21 JAN 76 <u>j/</u>

D. Follow-on Project: Second Agricultural Credit Project, Loan 1357 for US\$64 million, approved by the Board on December 28, 1976 and effective on September 6, 1977.

a/ Amended 30 APR 71, 7 FEB 73, 5 JUL 73, 18 DEC 73, and 11 NOV 74.

b/ Up to end of FY 70, estimated manweeks spent in country plus travel time. From FY 71 on, actual time spent on supervision, both in country and at headquarters, according to IBRD Time Recording System as tabulated by Programming and Budgeting Department. Besides the advantage of being actual figures instead of estimates, the use of the P&B figures avoids the problem of allocating to this project time spent in the country among the different projects supervised or appraised by each mission (as is the case for the last two missions).

c/ The same mission identified Atlantico No. 3 (eventually Loan 502-CO), Cordova No. 2 (eventually Loan 1163-CO), and Valle del Cauca No. 1.

d/ This mission also supervised Loan 502-CO.

e/ Plus one person of the Area department, who attended most of the Bogota meetings held by the supervision mission.

f/ This mission also supervised Loan 502-CO and updated the appraisal report of Loan 849-CO.

g/ This mission also supervised Loan 502-CO and 849-CO.

h/ This mission also supervised both Loan 651-CO and the preparation of the Second Agricultural Credit Project.

i/ This mission also supervised Loan 651-CO and appraised the Second Agricultural Credit Project.

j/ Revised on September 30, 1976.





## Project Performance Audit Report

### COLOMBIA FIRST AGRICULTURAL CREDIT PROJECT

(Loan 624-CO)

#### HIGHLIGHTS

The primary purpose of the project was to finance a production-oriented supervised credit program for medium-sized farmers located within INCORA districts. The project proved to be a successful vehicle for transferring funds effectively to the target group of farmers: indeed, the number of beneficiaries was almost 15% larger than originally envisaged.

The farm activity also proved to be a profitable undertaking for the country. The project's rate of return has been re-estimated at 25%. However, the development impact of the credit program is unclear. The project had been conceived as a vehicle for providing complementary short, medium and long-term finance to farmers for on-farm development. But project lending came to be dominated by the short-term finance: it comprised two-thirds of project subloans and almost half the participants took only short-term funds. Further, substitution of project funds for others already available to the farmers - especially in the short-term category - seems to have been high.

The following points may be of special interest:

- Poor coordination between CP and the Bank during project preparation (PPAM, paras. 1 and 23; PCR, paras. 1.01 to 1.03 and 7.01)
- Contradictory decisions regarding the use of Bank funds for short-term lending (PPAM, paras. 3, 10 and 11)
- INCORA's negative net contribution to project financing (PPAM, para. 13)
- Limited information on project impact (PPAM, paras. 17 and 18; PCR, paras. 4.02 to 4.06)
- Substitution varying by term of funds (PPAM, paras. 19 to 22)
- Inadequate margin for financial intermediary executing the project (PPAM, para. 16; PCR, para. 3.06)
- Inadequate project accounting (PCR, para. 5.18)
- Weaknesses in Bank supervision (PPAM, paras. 24 and 25).



Project Performance Audit Memorandum

COLOMBIA FIRST AGRICULTURAL CREDIT PROJECT

(Loan 624-CO)

1. Project Preparation and Approval

1. The project was identified by a Bank/FAO Cooperative Program (CP) mission and prepared by INCORA under CP guidance. At appraisal, the Bank reduced the project area to three INCORA districts from the nine proposed, eliminated the livestock component, and lowered the maximum farm size. The livestock component was eliminated because another livestock project was being financed at the time by the Bank. The decision to reduce the project size was taken considering the limited availability of qualified farm planners and the rate at which they could be trained (additional reasons are mentioned in the PCR, para. 1.02). According to the appraisal mission, the three districts chosen deserved priority because they had the best farm land in the country, well developed supporting services, active and progressive farmers, and much better prospects for high rates of return resulting from better crop response under irrigation. These reasons, it should be noted, reflected the basic premise of the project, that lack of credit was the real constraint on further progress. Otherwise, an argument could have been made that the credit would have greater impact in less advantaged districts.

2. The appraisal report envisaged increased agricultural production coming from: (i) an increase in cropped area, from about 52,500 ha to 72,500 ha, due to on-farm development, reduction of fallow areas, and increased availability of machinery and mechanized farming services; and (ii) an increase in yields on the order of 50% to 70%, due to increased use of fertilizer, pesticides, and machinery services. The appraisal report does not state, however, either how much of the increased physical production would come from increased area and how much from increased yields; or how much of it would be attributable to the project. Farm planning was expected to help project farmers allocate both investment and short-term funds more productively.

3. The project provided for long-term and medium-term credit and for short-term complementary financing. The Government had asked for a Bank loan to partially finance the long and medium-term credit component and the technical services and vehicles. Government had not request Bank funds for the short-term credit component because there were (or Government thought there were) enough domestic funds to finance it. The Bank, nevertheless, earmarked 40% of the loan proceeds for financing 54% of the additional short-term loans expected to be made under the project. The Bank seems to have sought to ensure by this action that the additional working capital essential to permit other project inputs to be used effectively would be provided at reasonable terms to complement the medium and long-term investments on the farms. As noted later in this report, most of the short-term financing was not used in this way. This decision was at variance with the then current practice of the Bank not to finance short-term on-lending activities. One year later the Bank was to reject a Colombian request to use part of the

proceeds of another loan (Loan 448, Livestock Development) to set up a rotary fund to finance the short-term on-lending needed to complement the long and medium-term investments being financed under that loan.

4. The Government proposed, and the Bank accepted after protracted discussion, that the Institute for Colonization and Agrarian Reform (INCORA) be the executing agency. The PCR (para. 5.03) rightly states that the Agrarian Bank (CAJA), which the World Bank preferred to appoint as executing agency, would have been the logical choice to perform such credit operations.

5. The basic premise of the project was that lack of credit was the main factor hampering an increase in the productivity of the target farmers. The appraisal report's argument was that, through access to adequate credit to be provided under the project, the target farmers would increase productivity; would farm twice a year their lands currently under fallow for one season; would obtain mechanized farming services when they required them; and would use adequate fertilizer and pesticides for optimum yields (Appraisal Report, para. 3.06). No analysis was presented to support these assumptions, however. It is difficult at this time to describe conditions in the three districts in 1968. However, under conditions prevailing in most Latin American countries, the farmer's reason for fallowing, or not using fertilizer and pesticides, or not investing in on-farm improvements, are often far more complex than just the lack of credit; this is seldom the decisive factor influencing farmer behavior. During both preparation and appraisal of the project, research was undertaken to check whether existing credit supplies were timely and adequate. The findings were negative and were thus considered to support the project concept. However, there was relatively little investigation of other factors limiting the increase in production and productivity, and of the role and priority of credit vis-à-vis those other inputs. Subsequent experience with the project suggests that lack of credit was not the principal limiting factor on production in the project area.

6. The appraisal report estimated the project's economic rate of return at 25%. The calculations were based on farm models illustrating the expected build up of net income from increased production of cotton, rice and other crops. Three of the four models reproduced in the appraisal report showed a major increase of gross value of production in the first year after the project investments were made: 68%, 64% and 70%, respectively. These first year increases, coming from double cropping of land formerly under fallow in one season, provided two-thirds of the total increases in gross values the models showed over the five-year period - until stability at a post-project level of production was reached. The first year growth simulated by the models was almost entirely attributable to increases in cotton production, which were due largely to an expansion of the area planted. According to the appraisal description, the central thrust of the credit was to provide the means to plant cotton in the second season on land which hitherto had been fallowed. The 25% rate of return forecast was linked intimately to these particular assumptions about crop expansion.

## 2. Project Implementation

7. Project implementation proceeded at a slow pace during the first three years for a number of reasons. (a) The number of potential borrowers in the three districts where the project was being executed turned out to be less than half the 2,500 estimated by the appraisal mission. (b) The required counterpart funds were not fully provided for by the Government; INCORA was thus unable to begin the lending program for which it could have claimed Bank reimbursements of 86%, thereby generating additional funds for further lending. (c) INCORA's policy with regard to lending to medium-sized farmers had changed. By the time the project became effective, INCORA had a new general manager who believed INCORA should concentrate on land reform beneficiaries and not on well established, prospering, medium-sized farmers who were the intended beneficiaries of the project; thus, INCORA did not pursue project implementation with enthusiasm. (d) There was a high turnover of INCORA's senior staff, including four different general managers during the first three years of project implementation. (e) There were not enough trained farm planners to operate project on-lending at the rate anticipated at appraisal. INCORA allocated many of the then available farm planners to activities other than giving credit to medium-sized farms, partly because it judged that the Bank program was moving too slowly to justify a larger staff commitment, partly because of the shift in INCORA's objectives. Also, some of the staff quit INCORA to join the private sector, which offered better salaries. (f) INCORA's organizational structure prevented effective project management. The Project Manager had not been given direct command of project implementation, which rested in the hands of the regional managers; his role was reduced to an advisory one. (g) The conditions set by the Bank to procure certain goods<sup>1/</sup> and to process disbursement claims for short-term on-lending were cumbersome and difficult to comply with. However, all these factors that had slowed down on-lending were reduced or removed during 1972.

8. Two other factors might have affected project implementation: the agrarian reform program, and the lack of demand for short-term seasonal sub-loans. However, the evidence is inconclusive on these points.

9. Agrarian reform had been mentioned in many Bank documents as a factor adversely affecting the investment climate and depressing demand for credit. It seems that the fear of being expropriated made some farmers reluctant to request a loan from INCORA insofar as it was also the agency in charge of agrarian reform. But this fear began to dissipate when it became clear that the early borrowers had not been expropriated. Meanwhile, other farmers seem to have decided to invest in on-farm development to prevent being expropriated. The fact that the Agrarian Reform Law was amended at about the same time the other main constraints were removed prevents a definitive judgement.

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<sup>1/</sup> The appraisal mission thought procuring fertilizers and pesticides for the project by international competitive bidding was impractical, but the Bank eventually decided that the procedure should be followed. The decision contributed to the initial delays in project implementation; ultimately, no fertilizer or pesticide was procured in this manner.

10. As to the second factor - that farmers showed no interest in taking up seasonal credit available under the project because alternative sources were available to the project area - INCORA and CP had concluded during project preparation that domestic sources of finance were sufficient to provide for all the requirements of short-term credit. The appraisal mission, however, reported that "...the total funds (then) available (were) quite insufficient to meet the demand for credit" (Appraisal Report, paragraph 3.14). Subsequently, Bank supervision missions and the 1971 OED mission reported that CAJA and some commercial banks had, since appraisal, been lending to potential project farmers for seasonal credit, thus reducing the demand for project sub-loans.

11. To accelerate disbursements under the short term category, the loan agreement and the project administration agreement were amended as follows in 1971: (i) seasonal lending by CAJA and the private banks (PBs) in the project areas was included under the project, but without reimbursement out of the loan proceeds; (ii) 100% of the funds disbursed by INCORA would henceforth be reimbursed, up to 54% of the total amount disbursed by INCORA, CAJA and the PBs, instead of having the Bank reimburse, as originally planned, against only 54% of INCORA's disbursements (thus eliminating INCORA's own contribution to financing short-term on-lending), and (iii) farm<sup>1/</sup> inputs in addition to fertilizers, pesticides and mechanized farming services<sup>1/</sup> were accepted as eligible for short-term financing.

### 3. Project Implementation: Lending and Financing

12. A total of 8,061 sub-loans were made to 2,835 individual and group borrowers, 13% over the appraisal estimate of 2,500.<sup>2/</sup> Most of the sub-loans were for short-term purposes only; less than 10% of them were to finance long-term investments. Most of the sub-borrowers (83%) received only one kind of sub-loan (either once or several times); only 1% received all three kinds. The appraisal expectation that short-term on-lending would complement either or both long and medium-term on-lending proved to have been justified only in 14% of the cases. Moreover, almost half of the sub-borrowers (46%) received only short-term lending. The credit strategy as envisaged at appraisal was thus not realized and the lending program resembled a commercial credit activity as much as development finance (tables 1 and 2 and PCR, paras. 2.02 to 2.15).

13. A gross total of US\$28.3 million was on-lent by INCORA and other participating agencies under the project, 31% over the appraisal proposal

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<sup>1/</sup> The original project financed only these three types of inputs, estimated at 48% of the total increase in working capital; the amendment allowed financing of all farm inputs, estimated at 70% of that increase.

<sup>2/</sup> These figures include only the sub-loans made and sub-borrowers assisted by INCORA. The number of short-term sub-loans made and sub-borrowers assisted by CAJA and the PBs was not reported by INCORA. It can be assumed, however, that they are included in the INCORA count, for the understanding was that the only CAJA/PB loans to be considered as made under the project were those to INCORA's project sub-borrowers.

(US\$21.6 million - table 3).<sup>1/</sup> Net of recoveries of principal, US\$18 million<sup>2/</sup> was on-lent under the project. The net amount on-lent by INCORA alone (US\$12.9 million) is less than the amount actually supplied by the Bank under the loan as a whole (US\$15.8 million) as well as under each of the three on-lending categories (table 4); but the absence of comparable data in the appraisal report prevents any comparison with expectations on this point.

14. More funds than expected were on-lent for short and medium-term purposes; long-term on-lending was far below the appraisal forecast (table 3). The increase in short-term on-lending in effect meant that such loans from CAJA and the private banks were replacing in part resources the farmers were supposed to supply or obtain from other sources. Activities on only 50,000 ha were financed, around 70% of the appraisal target of 72,500 ha.

15. Lack of profitability of long-term investments, and the requirement of a mortgage guaranty, restricted the demand for long-term subloans throughout the project areas; the lack of main drainage works was also a restrictive factor in Tolima. The shortfall in long-term on-lending is not, however, an exact measure of the shortfall in longer term investments, though these did lag behind appraisal targets (PCR, para. 2.15). To some extent INCORA deliberately reduced the period of the medium and longer term loans below the maximum allowed in order to increase the velocity of turnover of the principal and thereby to benefit a larger number of farmers. INCORA maintains that it tried to adjust the terms to the apparent repayment capacity of the sub-borrowers, rather than offer as generous a repayment period as the loan agreements allowed.

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<sup>1/</sup> These figures, as well as all the others presented in this section, refer to on-lending in the period during which the loan was effective (from the Effective Date to the Closing Date). Bank funds under Category 1 (short-term), however, had been fully disbursed almost one year earlier; Bank funds under Categories 2 and 3 (medium and long-term) had also been fully disbursed before the Closing Date. Therefore, the amount on-lent with supporting Bank finance was actually less than stated here. Since the last part of on-lending had to be financed only with domestic funds, the contribution of these to the financing of the project is also overstated. All the on-lending figures presented in this paragraph and the following ones differ from those presented in the PCR, which does not include the amounts lent for short-term purposes by CAJA and the PBs as established in the amendment dated April 30, 1971 to the Loan Agreement, Section 2.03(a).

<sup>2/</sup> This figure is probably an over-estimation. It is based on recovery rates reported by INCORA, though it includes funds lent by the CAJA and the PBs. It is almost certain that CAJA and the PBs had rates of loan recovery better than INCORA's.

16. INCORA had been allowed a 5.5% spread between borrowing and on-lending rates to finance farm planning and lending administration costs, and the credit risk. This spread proved inadequate and the agency incurred a loss while running the project with nothing being left to cover the on-lending commercial risk. CAJA performed satisfactorily the banking services on behalf of INCORA. CAJA's allowed spread of 1% seems to have been enough to cover all its expenses.

#### 4. Project Impact<sup>1/</sup>

17. Output data were not collected regularly during the execution of the project. Therefore, it is not possible for the PCR or the Memorandum to include either a comparison of actual achievements with the appraisal projections of area and yield increases (para. 2), or a measure of changes on those farms which were expected to crop lands previously under fallow in alternate seasons (para. 6)<sup>2/</sup>. The form of farm development must have differed considerably from appraisal projections, however, because of the unexpectedly important role of irrigated rice in the farming system of many project beneficiaries, and because of the shift in emphasis from long to shorter term credit. After project completion INCORA conducted a detailed study of the financial performance of a stratified sample (89) of the (1,124) farms which had benefitted from the project. The analysis focussed on the productivity of additional capital, the increased importance of irrigation in the farming systems, and the job creation impact of the project. The study did not investigate the physical changes in area, yield and use of fallow mentioned above.

18. The information presented in the INCORA study has been used to estimate the economic rate of return of the project. The cumulative average incremental net farm income financed by the loan during the five-year project was compared with the farm investments and costs of technical assistance financed by the loan, all expressed in 1974 units of value. It was judged

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1/ Much of this section, as well as Table 8, was prepared by the Latin America and the Caribbean Regional Office for the Memorandum when the results of the study mentioned in para. 17 became available.

2/ The PCR attempts to estimate the impact of short-term lending by attributing to the project a percentage of the total value of production similar to the percentage of the total cost, of producing and harvesting the crops, that was financed with borrowed project funds. That methodology - the only one available, given the absence of on-farm production data - has questionable applicability, for it is not possible to estimate what the value of production would have been without the project, and therefore, what the marginal returns were to project lending, a problem the PCR is quite candid about. The original appraisal estimate of the "without" situation cannot be used in this case in light of the known substantial changes in the cropping pattern.



that 20% of the incremental farm income would have occurred without the project, because during the period improved varieties of rice were introduced in the project area. Under these assumptions the economic rate of return of the project over 10 years was 25%, or the same as estimated at appraisal.<sup>1/</sup> (table 8).

#### 5. Substitution of Funds

19. There seems to be no doubt that the long-term funds provided were additional, for the kind of long-term financing introduced under the project did not previously exist in Colombia. Many of the investments that they financed would probably not have been carried out without them.

20. No such definite statement can be made in respect of medium-term funds. The strong demand for project sub-loans to finance agricultural machinery could mean that there was not enough financing for these types of capital goods; but it may also mean that the farmers were simply switching out of shorter term credits. However, since the interest rate on these sub-loans was rather similar to the standard, commercial rates of interest prevailing in Colombia during project implementation, there was probably not much substitution of this kind. There could well have been more substitution of another kind. With an inflation rate averaging about 10% during the project implementation period, a 13% rate of interest on the sub-loans constituted cheap money for every farmer. The high demand observed could mean that farmers were keen on getting these cheap project funds so as to reallocate their own funds to investment opportunities returning more than 3% in real terms.

21. With respect to short-term funds, the project sub-borrowers certainly substituted project funds for the very expensive short-term funds they used to get from non-institutional sources. But they may also have substituted borrowed short-term funds for their own savings, for the same reasons mentioned above.

22. If the CP/INCORA preparation team, the Bank supervision missions, and the Operations Evaluation 1971 mission all guessed right - that there were adequate sources of short-term funds to assist the project farmers' requirements - then almost all of these loan proceeds would not have been additional to, but in replacement of, existing funds. If, instead, the appraisal mission's judgement was correct at the time it was made - that there was a severe shortage of short-term finance - then the Bank's desire during negotiations to finance supplementary short-term finance under the project was correct; the fact that alternative sources of funds became available during project implementation would be a development that it could not then have forecast. The Bank never pressed an investigation of this key issue, even

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<sup>1/</sup> A sensitivity analysis showed that the rate of return would remain above 10% even if it were assumed that 40% of the incremental benefits would have occurred anyway (table 8).

after it was raised in the debate over the conclusions of the Operations Evaluation 1971 report. The PCR refers briefly to the substitution issue, but notes the absence of any basis for making reasonable judgements on this score (PCR, para. 5.04).

## 6. Bank Performance

23. Some of the costs incurred in project identification and preparation (see Basic Data) appear now to have been unwarranted in light of the subsequent evolution of the project. Better coordination between CP and the Bank through prior agreement - even if loose - on matters such as the nature of the project, the investments that it could or should cover, and the institutional standards that should be required, might have saved time, cost and effort on project preparation and appraisal.

24. There was satisfactory staff continuity in supervising the project. However, supervision missions either did not realize or could not measure, but in either case did not report, that the essential project concept was being undermined by the unexpectedly large (46%) proportion of sub-borrowers who received only working capital loans unrelated to medium or long-term investments on the farm. They also overlooked a relatively minor breach of a loan covenant (PCR, para. 5.10), although INCORA's quarterly reports provided clear evidence of the shortfall.

25. Lending by the other participating agencies was not monitored by the Bank, although the information was available in the disbursement application claims. The Bank did not follow up whether the agreements with CAJA and the PBs had been implemented as agreed and whether the covenants in those agreements had been complied with.

26. The Government's delinquency in providing peso funds during the first three years was the subject of persistent representation by the Bank. But the intensive exchange of correspondence proved unsuccessful and the problem was only resolved after the Bank requested that the Government provide the peso resources needed to supplement this and a number of other loans as a condition of Board presentation of Loan 842 (Program and Export Expansion Loan, for US\$60 million equivalent).

## 7. The Follow-on Project

27. The audited project and the Second Livestock Development project (Loan 651) have been followed by a Second Agricultural Credit Project (Loan 1357) for US\$64 million, approved by the Board in December 1976. This follow-on project supports a three-year lending program to help finance on-farm and ranch investments and agro-industries. Its objectives are to expand food production, increase the availability of inputs to industry, increase agricultural exports, and increase employment opportunities.

28. The project is presented as being of high priority because it would reduce constraints imposed on Colombian agricultural production by the lack of resources for medium and long-term credit and the scarcity of savings by small farmers. Although this is most probably true as a general statement, again, as in the first appraisal report, there is no supporting analysis of the factors limiting production and productivity, or of additionality and possible substitution of funds. Under the new loan, a monitoring system will be established by the Bank of the Republic to collect the technical and financial data on farm performance, which should provide the basis for the analysis of impact during supervision that was not done under the first credit project.



Table 1

NUMBER OF SUB-BORROWERS OBTAINING DIFFERENT KINDS OF SUB-LOANS <sup>/a</sup>

<u>Category of Sub-borrowers</u>	<u>Number of Sub-borrowers</u>		
a) <u>Receiving only one kind of sub-loan</u>			
S - Only short-term sub-loans	1318		
M - Only medium-term sub-loans	799		
L - Only long-term sub-loans	<u>235</u>	2352	83%
b) <u>Receiving two kinds of sub-loans</u>			
MS - Medium- and short-term sub-loans	233		
LS - Long- and short-term sub-loans	137		
LM - Long- and medium-term sub-loans	<u>86</u>	456	16%
c) <u>Receiving all three kinds of sub-loans</u>			
LMS - Long-, medium- and short-term sub-loans	<u>27</u>	27	1%
d) <u>Total</u>			
Actual		2835	100%
Appraisal Estimate		2500	

<sup>/a</sup> It includes only the sub-borrowers that obtained sub-loans from INCORA. The number receiving short-term sub-loans from CAJA and the participating banks (PBs) was not obtained during the audit, though it was not intended to include any farmers who were not also borrowing from INCORA.

Source: INCORA.

Table 2

## NUMBER AND AVERAGE SIZE OF SUB-LOANS PER KIND OF SUB-LOAN

Kind of Sub-loan	Number of Sub-loans Made	Number of Sub-borrowers Receiving Them	No. of Sub-loans per:		Gross Amount Lent (\$000)	Gross Amount Lent per:	
			Sub-borrower Receiving This Kind of Sub-loan	All Sub-borrowers		Sub-loan (\$000)	Sub-borrower (\$000)
<b>a) Actual</b>							
<b>S-Short-term</b>							
- INCORA	5469	1715	3.2	1.9	14,454	2643	8427
- CAJA/PBs	n.a.	n.a.	n.a.	n.a.	18,400 <sup>/b</sup>	n.a.	n.a.
M-Medium-term	1803	1145	1.6	0.6	10,264	5693	8964
L-Long-term	<u>789</u>	<u>485</u>	1.6	<u>0.3</u>	<u>2,331</u>	<u>2955</u>	<u>4807</u>
Sub-total for INCORA	8061	2835 <sup>/a</sup>		2.8	27,049	3355	9541 <sup>/c</sup>
Total	n.a.	n.a.		n.a.	45,449	n.a.	n.a.

<sup>/a</sup> 83% of the borrowers received only one kind of sub-loan; 16% received two different kinds and 1% received all three kinds (see table 1).

<sup>/b</sup> Estimated on the basis of incomplete information (see table 7).

<sup>/c</sup> 1,929 short-term loans, plus 636 medium-term loans, plus 278 long-term loans.

Source: INCORA.

Table 3

## ON-LENDING UNDER THE PROJECT

(US\$ 000)

<u>Kind of Sub-loan</u>	<u>Proceeds from Loan 624</u>	<u>Domestic Contribution</u>	<u>Total On-lending</u>	<u>%</u>	<u>Appraisal Expectations</u>	<u>%</u>
<b>a) <u>Gross on-lending</u></b>						
S - Short-term						
- INCORA	5,500	8,954 /a	14,454			
- CAJA/PBs	-	18,400 /a /b	18,400 /b			
M - Medium-term	8,453	1,811 /a	10,264			
L - Long-term	<u>1,821</u>	<u>510 /a</u>	<u>2,331</u>			
	15,774	29,675 /a	45,449			
<b>b) <u>Gross On-lending, with only additional working capital credit /c</u></b>						
S - Short-term						
- INCORA	5,500	1,400	6,900	) 56	11,100	51
- CAJA	-	8,800	8,800 /d	) 36	6,700	31
M - Medium-term	8,453	1,811 /a	10,264	8	<u>3,800</u>	<u>18</u>
L - Long-term	<u>1,821</u>	<u>510 /a</u>	<u>2,331</u>	100	<u>21,600</u>	<u>100</u>
	15,774	12,521	28,295			
	56%	44%	100%			

/a Government's contribution plus loan recoveries (principal only).

/b Estimated on the basis of incomplete information (see table 7).

/c So as to make it comparable with appraisal figures (the project provided for the financing of the additional working capital requirements only). The Bank and the Government agreed to consider as "additional" the difference (if positive) between the amount lent in any given semester and the amount lent in the corresponding semester of the preceding year.

/d Estimated as a proportion of gross on-lending similar to that prevailing in INCORA's short-term on-lending.

Table 4

NET ON-LENDING UNDER THE PROJECT  
(US\$000)

<u>Kind of Sub-loan</u>	<u>Gross Amount Lent</u>	<u>Principal Recovered/a</u>	<u>Net Amount Lent</u>	<u>Amount Provided by Loan 624</u>
S - Short-term				
- INCORA	14,454	10,434	4,020	5,500
- CAJA/PBs	18,400 /b	13,300 /c	5,100	-
M - Medium-term	10,264	3,161	7,103	8,453
L - Long-term	<u>2,331</u>	<u>537</u>	<u>1,794</u>	<u>1,821</u>
	<u>45,449</u>	<u>27,432</u>	<u>18,017</u>	<u>15,774</u>

---

/a At the implicit rate of exchange for recoveries (Col.\$26.12/US\$1)

/b Estimated on the basis of incomplete information (see table 7)

/c Estimated as a proportion of gross on-lending similar to that prevailing in INCORA's short-term on-lending.



Table 5

REIMBURSEMENT CLAIMS FOR SHORT-TERM ON-LENDING  
(Col.\$ million)

Application Serial No.	Date	Year and Semester	Payments made by INCORA	Payments made by CAJA/PBs	Total Payments Made	54% of Total Payments	The Lesser of INCORA's Payments and the 54%	Minus Amount Lent on Past Equivalent Semester	Amount Claimed from IBRD	Amount Paid by IBRD (US\$' 000)
027	Dec 15' 71	2/70	4.4	8.6	13.0	7.0	4.4	0.0	4.4	211.3
046	Apr 10' 73	1/71	4.3	5.3	9.6	5.2	4.3	0.0	4.3	)
046	Apr 10' 73	2/71	4.1	n.a.	n.a.	n.a.	n.a.	-4.4	- a/	)
046	Apr 10' 73	1/72	11.6	18.7	30.3	16.4	11.6	-4.3	7.3	)
046	Apr 10' 73	2/72	9.7	15.0	22.4 <sup>b/</sup>	12.1	9.7	-4.4 <sup>c/</sup>	5.3	)
052	Sep 04' 73	1/73	41.8	59.4	101.2	54.6	41.8	-11.6	30.2	1,302.0
060	Apr 24' 74	2/73	33.5	69.3	102.9	55.5	33.5	-9.7	23.8	933.6
064	Aug 29' 74	1/74	100.7	103.3	204.0	110.2	100.7	-41.8	58.9	2,232.7
071	Mar 31' 75	2/74	73.4	79.4	152.8	82.5	73.4	-33.5	39.9	93.2
-	-	1/75	<u>82.1</u>	n.a.	n.a.	n.a.	n.a.	-100.7	- d/	-
			365.6						174.1	5,500.0

a/ No claim was made, since on-lending in the second semester of 1971 was less than in the second semester of 1970.

b/ Sic.

c/ Since on-lending in the second semester of 1971 was less than in the second semester of 1970, the latter was used as yardstick to measure additionality.

d/ No claim was made, since on-lending in the first semester of 1975 was less than in the first semester of 1974. Moreover, funds in Category 1 had been already fully disbursed.

Source: Controller's Department.

Table 6

TOTAL PROJECT COST<sup>/a</sup>  
(US\$000)

<u>Category</u>	<u>Proceeds from Loan 624</u>	<u>Gov't.'s Contri- bution</u>	<u>CAJA and PBs</u>	<u>Total On- lending</u>	<u>Farmers and Other Participants</u>	<u>Total</u>
a) <u>At Appraisal</u> <sup>/b</sup>						
A.1 Short-term loans	6,000	5,100	-	11,100	12,200	23,300
2 Medium-term loans	5,900	800		6,700	3,900	10,600
3 Long-term loans	3,300	500		3,800	1,200	5,000
B.4 Technical assistance )	900	100				1,000
5 Vehicles )						
C.6 Cesar Valley Study	<u>900</u>	<u>1,700</u>				<u>2,600</u>
TOTAL	17,000	8,200	-		17,300	42,500
Percent	40%	19%	-		41%	100%
b) <u>Estimated Actual</u>						
A.1 Short-term loans						
- INCORA	5,500	1,400 <sup>/c</sup>		6,900	) 6,729 <sup>/d</sup>	22,429 <sup>/d</sup>
- CAJA/PBs	-		8,800	8,800	)	
2 Medium-term loans	8,453	1,811		10,264	3,421 <sup>/e</sup>	13,685 <sup>/e</sup>
3 Long-term loans	1,821	510		2,331	777 <sup>/e</sup>	3,108 <sup>/e</sup>
B.4 Technical assistance )	316	55				371
5 Vehicles )						
C.6 Cesar Valley Study	<u>910</u>	<u>1,619</u>				<u>2,529</u>
TOTAL	17,000	5,395	8,800		10,927	42,122
Percent	40%	13%	21%		26%	100%

<sup>/a</sup> Including gross medium- and long-term on-lending and additional gross short-term on-lending, as originally conceived and presented in the appraisal report.

<sup>/b</sup> As presented in the PCR.

<sup>/c</sup> The Government contributed nothing to short-term on-lending until July 1974, when the loan funds under category 1 were fully disbursed. The amount shown here is the full amount of the seasonal loans made by INCORA after that event, which has been counted as part of the project since they had been made before the loan's Closing Date.

<sup>/d</sup> Computed as if the loans were 70% of the total amount to be financed.

<sup>/e</sup> Computed as if the loans were 75% of the total amount to be financed.

Table 7

SHORT-TERM ON-LENDING  
(Col\$ million)

<u>Year and Semester</u>	<u>Gross On-lending</u>		<u>Repayments</u>	
	<u>INCORA</u>	<u>CAJA/PBs</u>	<u>INCORA</u>	<u>CAJA/PBs</u>
1970 - 2	4.4	n.a.	-	-
1971 - 1	4.3	5.3	3.6	n.a.
- 2	4.1	n.a.	4.2	n.a.
1972 - 1	11.6	18.7	4.1	n.a.
- 2	9.7	15.0	10.2	n.a.
1973 - 1	41.8	59.4	10.0	n.a.
- 2	33.5	69.3	37.5	n.a.
1974 - 1	100.7	103.3	36.7	n.a.
- 2	73.4	79.4	91.3	n.a.
1975 - 1	<u>82.1</u>	<u>n.a.</u>	<u>74.9</u>	<u>n.a.</u>
	365.6	465.8 <sup>/a</sup>	272.5	347.1 <sup>/b</sup>
	831.4		619.6	

<sup>/a</sup> Assuming that the loans made by CAJA and the participating banks in 1970 - 2, 1971 - 2, and 1975 - 1, for which data are not available, are in the same proportion, in relation to those made in the other semesters, as those made by INCORA.

<sup>/b</sup> Estimated as a proportion of gross on-lending similar to that prevailing in INCORA.

Table 8

## ECONOMIC RATE OF RETURN WORK SHEETS

1974 gross annual income range <sup>1/</sup> Col\$	1 to 500,000	500,001 to 1,000,000	1,000,001 to 1,500,000	1,500,001 to 5,000,000	Total
Number of farms <sup>2/</sup>	545	255	125	199	1,124
Sample <sup>3/</sup>	45	22	7	15	89
<u>Incremental cost and income</u>					
<u>per ha (Col\$ '000 1974)<sup>4/</sup></u>					
Gross income	12.78	6.75	12.92	11.79	
Off-farm income	0.92	0.56	0.37	0.48	
Farm costs	9.26	5.06	6.97	6.67	
Net income	4.44	2.25	6.32	5.60	
Net farm income	3.52	1.69	5.95	5.12	
Number of farms x net incre- mental farm income per ha	1,918.40	430.95	743.75	1,018.88	
Weighted average $\frac{4111.98}{1124} =$					
Col\$3,658/ha					4,111.98
<p style="text-align: center;">Total area<sup>5/</sup> x net financed incremental (2 semesters) farm income/ '000US\$ ha 3.658 1974<sup>6/</sup> (Col\$'000 1974)</p>					
Year 1 1970	3,986	14,581	558		
Year 2 1971	8,721	31,901	1,220		
Year 3 1972	20,334	74,382	2,846		
Year 4 1973	49,337	180,475	6,904		
Year 5 1974	52,416	191,738	7,335		

Sources INCORA Report. August 1977.

<sup>1/</sup> p. 7.

<sup>2/</sup> p. 8.

<sup>3/</sup> p. 8.

<sup>4/</sup> p. 10 and Table 4.1.

<sup>5/</sup> PCR, Annex 2, Table 9.

<sup>6/</sup> PCR, Annex 2, Table 5.

Col\$26.14 = US\$1.

Table 8 (continued)

Calculation of the Distribution by Years of Total US\$ Costs of  
Technical Assistance and Vehicles

	Cost of living Index		Total Field Service Costs Co1\$ '000			US\$ '000	Index of internat'l inflation 1974 = 100	US\$ '000 (1974)
	1968 = 100.0 <sup>a/</sup>	1974 = 100.0	Current <sup>b/</sup>	1974 value	Co1\$ %			
1970	114.1	51.5	1,710	3,320	8.7	32.	59.6	54
1971	127.5	57.5	3,832	6,664	17.5	65.	63.3	103
1972	145.1	65.5	4,457	6,805	17.8	66.	68.9	96
1973	177.0	79.9	7,517	9,408	24.6	91.	81.7	111
1974	221.6	100.0	11,986	11,986	31.4	116.	100.0	116
					100.0	370. <sup>c/</sup>		

a/ Country Economist

b/ PCR, paragraph 3.06

c/ PCR Annex 1, Table 10 (Technical Assistance and Vehicles)

Calculation of the Distribution by Years of Medium and Long-term Investments in US\$

	Incremental area <sup>d/</sup> financed ha	%	US\$ '000	Index of internat'l inflation 1974=100	US\$ (1974)
1970	3,986	7.6	1,292	59.6	2,168
1971	4,735	9.0	1,529	63.3	2,415
1972	11,613	22.2	3,773	68.9	5,476
1973	29,003	55.3	9,398	81.7	11,503
1974	3,079	5.9	1,003	100.0	1,003
	<u>52,416</u>	<u>100.0</u>	<u>16,995<sup>e/</sup></u>		

d/ PCR, Annex 2, Table 5

e/ PCR, Annex 1, Table 10 (medium and long-term investment)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Incremental net benefit	558	1,220	2,846	6,903	7,335	7,335	7,335	7,335	7,335	7,335
<u>Alternative A</u>										
Medium & long-term investment	1,292	1,529	3,773	9,398	1,003	-	-	-	-	-
Technical assist- ance	32	65	66	91	116	115	115	115	115	115
Incremental input	<u>1,324</u>	<u>1,594</u>	<u>3,839</u>	<u>9,489</u>	<u>1,119</u>	<u>115</u>	<u>115</u>	<u>115</u>	<u>115</u>	<u>115</u>
Net (cost) or benefit A	(766)	(374)	(993)	(2,586)	6,216	7,220	7,220	7,220	7,220	7,220
<u>Alternative B</u>										
Medium & long-term investments	2,168	2,415	5,476	11,503	1,003					
Technical Assist- ance	54	103	96	111	116	115	115	115	115	115
Incremental Input	<u>2,222</u>	<u>2,518</u>	<u>5,572</u>	<u>11,614</u>	<u>1,119</u>	<u>115</u>	<u>115</u>	<u>115</u>	<u>115</u>	<u>115</u>
Net (cost) or benefit B	(1,664)	(1,298)	(2,726)	(4,711)	6,216	7,220	7,220	7,220	7,220	7,220

Table 8 (continued)

## Sensitivity Tests

<u>Proportion of Incremental Benefits Attributed to the Project</u>	<u>Project's Economic Rate of Return</u>
100%	38%
90%	32%
80%	25%
70%	19%
60%	12%

# DIAGRAM 1

## FINANCING ADDITIONAL WORKING CAPITAL UNDER THE PROJECT

1.- As envisaged at appraisal.-

... Existing Working Capital → Additional Working Capital: US\$23.3 million = 100%



To be financed under the project = 48% | To be financed by the farmers themselves = 52%

To be financed by the Bank = 54% of 48% = 26% | To be financed by INCORA = 22%

2.- Actual.-

... Existing Working Capital → Additional Working Capital: US\$22.4 million = 100%



Financed under the project = 70% | financed by farmers = 30%

Bank = 24.5% | <sup>INCORA</sup> 6% | CASA and PBs = 39%

shortfall





COLOMBIA

AGRICULTURAL CREDIT PROJECT

Loan 624-CO

Completion Report

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ANNEXES

- 1 Disbursement and Project Costs<sup>1/</sup>
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- 4 Sub-loan Recoveries and Overdue Accounts <sup>4/</sup>
- 5 Key Indicators <sup>3/</sup>
- 6 Supervision Missions<sup>3/</sup>

- 
- 1/ Tables 4-9 are not included.
  - 2/ Tables 1, 3, 4 and 9 are not included.
  - 3/ Not included.
  - 4/ Tables 4-10 are not included.

A.1

COLOMBIA

AGRICULTURAL CREDIT PROJECT

Loan 624-CO

Completion Report

I. PROJECT DESCRIPTION

Background

1.01 During 1966 the Instituto Colombiano de la Reforma Agraria (INCORA) requested the assistance of FAO/CP in preparing a feasibility study to form the basis of a loan request to the Bank. The objective was to prepare a credit project focussed on the requirements of farmers with medium-sized holdings, who were not direct beneficiaries of the land reform program administered by INCORA, but who were within areas affected by agrarian reform, principally in irrigation districts. An FAO/CP mission visited Colombia in November/December 1966 to advise INCORA on the preparation of such a project which was later recommended in the Bank in the "Review of INCORA and its Program in Colombia" (paragraphs 132-138 of Report No. TO-611 October 26, 1967). Project preparation was continued with the assistance of FAO/CP, which finally issued the Preparation Report on August 22, 1968 (Document No. 21/68 Col. 2). The following INCORA Districts (see map IBRD 2082RI) were proposed for inclusion:

<u>Irrigation Districts</u>	<u>Dry-land Farming Districts including Livestock</u>	<u>Livestock Districts</u>
Atlantico 3 (Repelon)	Tolima 2-4	Meta 1
Bolivar 1	Valle 2	Caqueta 1
Cordoba 2		
Tolima 5		
Valle 1		

Within these nine districts it was estimated that 3,000 medium-sized crop farmers (10 to 100 ha) and livestock ranchers (10 to 450 ha) could benefit from a three year credit project with a total value of US\$49.7 million. It was proposed that a loan of US\$24.8 million be sought from the Bank.

1.02 Before the loan application was made, in October 1968 an appraisal mission visited Colombia. The mission recommended that the project be limited to crop farmers (10 to 50 ha) in Tolima 2-4 and 5 and Valle 1 in order to concentrate the technical and financial supervision, rather than to disperse efforts over a wide geographical area. The reasons for excluding the other six Districts were that there were not enough potential beneficiaries in Atlantico 3; secondary infrastructure was not sufficiently advanced in Bolivar 1 and Cordoba 2; and Valle 2 farms were already well developed, had access to sufficient credit, and were only slightly affected by the agrarian reform program. Meta 1 and Caqueta 1 were excluded because they were exclusively livestock districts.

1.03 INCORA did not accept the Bank analysis because, through limiting the project area, excluding all livestock producers and setting 50 ha rather than 100 ha as the maximum farm size, the total demand was expected to be inadequate to justify the size of the credit component (US\$16.1 million) of the proposed loan. Furthermore, the agricultural potential of southern Tolima was considered doubtful since soils were generally poor and rainfall is often inadequate. In this area the Caja de Credito Agrario, Industrial y Minero (Caja Agraria) had had particularly unsatisfactory experience with bad debts and INCORA was reluctant to encourage sub-loan applications from farmers who were accustomed to not repaying their debts. It was for these reasons that on February 24, 1969 Colombia officially presented to the Bank the original INCORA project which had been prepared with the assistance of FAO/CP. At the same time, a loan request for US\$2.5 million was submitted to finance a feasibility study for the reclamation of land in the Cesar Ariguani region; this had also been supported in the 1967 Bank Report on INCORA (TC-611).

1.04 Notwithstanding the reservations of INCORA concerning the feasibility of the project as reformulated by the Bank appraisal mission, the Colombians agreed to accept a loan for a project incorporating the recommendations of the appraisal mission (Report No. PA-11a May 27, 1969). The main features of the loan negotiated in April/May 1969 and the initial description of the project are given below.

1.05 Basic DataProject Title - Agricultural CreditBorrower - Republic of Colombia

Sub-loan - The Government of Colombia was to on-lend the Loan to INCORA on the same terms as received from the Bank

Amount of Loan - US\$17 millionExchange Rate at Appraisal - Col\$ 16.77 - US\$1.00Date of Loan Agreement - June 27, 1969Closing Date - December 31, 1973Period of Grace - 5 yearsTerm of Loan - 15 yearsAnnual Rate of Interest - 6.5%Commitment Charge - 3/4 of 1%

Amortization - 21 semi-annual payments commencing December 15, 1974 at US\$575,000 and increasing to US\$1,100,000 for the final payment on December 15, 1984.

Original Scope of the Project

1.06 The project was to be a four-year supervised credit program starting in July 1969 for 2,500 medium-sized (10 to 50 ha) crop farms covering about 80,000 ha in the two INCORA areas (Tolima and Valle). The aim was to increase production of major crops for export and for import substitution (cotton, rice, maize, beans and soya) by providing institutional credit to farmers who had access only to limited and more costly credit from private sources. Total project cost was estimated at about US\$42.5 million, which was to provide: (a) long-term credit for on-farm improvements (US\$4.6 million); (b) medium-term credit for agricultural machinery including spraying aircraft (US\$9.6 million); and (c) incremental seasonal credit only for fertilizers, pesticides and mechanized farming services (US\$21.2 million). Technical assistance was also included to ensure effective administration of the program (US\$0.9 million) and to prepare an irrigation project of about 60,000 ha in the Cesar River Valley (US\$2.6 million). Of the total project costs, farmers, contractors and commercial sources were expected to contribute US\$17.3 million (41%), Government was to provide US\$8.2 million (19%) and the Bank loan was to cover the remaining US\$17 million (40%). The Government's contribution was to be in the form of a loan to INCORA, repayable over 25 years, with interest at 1% per annum.

1.07 The project was to be executed by INCORA, assisted by Caja Agraria which was to administer the project account and supply farm inputs to farmers through its existing organization.

#### Modifications to the Project

1.08 As is described more fully in Chapter II, the initial progress of the project was unsatisfactory and the following changes were introduced in 1971 and in later years to improve effectiveness. These changes are outlined below:

- (a) Project Scope. In revised loan documents dated April 30, 1971, the period of the project was extended to five years, to June 30, 1974. Surprisingly, however, no change was made in the Closing Date (Article VIII, Section 8.01), which remained December 31, 1973. In the Tolima 5 district, farms of up to 100 ha were to be eligible for sub-loans and, throughout the project area, farm inputs in addition to fertilizers, pesticides and mechanized farming services were accepted as eligible for seasonal credit (see para 1.06(c)). In February 1973 (Cable 2/7/73, Letter 2/15/73) the Bank agreed to extend the project area to include Valle 2, Tolima 3 and Tolima 6 and, at the same time, it was agreed to accept farms of all sizes up to 100 ha. Then, in July 1973 (Letter 7/5/73), it was also agreed to extend the project area to the Huila districts 1, 2, 3 and 4.
- (b) Closing Date: In December 1973 (Letter 12/18/73) the Bank agreed to extend the Closing Date by one year to December 31, 1974, and finally in November 1974 (Letter 11/11/74) the Closing Date was set at June 30, 1975.
- (c) Allocation of proceeds of the Loan. The original allocation of the proceeds of the loan (Schedule 1 of the Loan Agreement) was maintained until September 1974 when the Bank agreed (Letter 9/12/74) to reallocations which increased the amount available for medium term loans and reduced the amount for long-term loans (Annex 1, Table 1).

## II. EXECUTION OF THE PROJECT

### Part A - Credit

2.01 The appraisal report considered a four-year investment program, but, following changes in the project described in Chapter I, the effective duration of the program was 5-1/2 years - January 1970 to June 1975 - or a 37.5% longer period than projected. Further details are given in Annex 2, Tables 1 to 9.

2.02 Under the project, a total of 8,061 sub-loans were made to 2,835 borrowers of whom 866 had repaid their sub-loans by June 1975. Since some groups of farmers constituted single borrowers, the number of families benefiting from sub-loans was considerably higher than the number of sub-loans. In June 1975, the number of beneficiaries with current sub-loans totalled 3,355 which may be compared with the appraisal projection of 2,500 farms to be included in the program at full development. The additional number of beneficiaries was approximately proportional to the extra time allowed for the project. Thus, the project was finally successful in benefiting a satisfactory number of farm families, although the number of beneficiaries was much less during the first two to three years than the number of farms projected at appraisal.

<u>Appraisal Estimate</u>		<u>Actual</u>		
<u>Cumulative Number of Farms</u>		<u>Current Number of Beneficiaries</u>	<u>Annual Number of Sub-loans</u>	<u>Cumulative Number of Sub-loans</u>
1969/70	320	1970	236	236
1970/71	880	1971	454	659
1971/72	1,600	1972	877	1,558
1972/73	2,500	1973	2,271	3,940
		1974	3,169	6,786
		1975 (June)	3,355	8,061

2.03 The value of sub-loans made up to June 1975 was, in local currency, close to the total estimated for full development at the time of appraisal. Medium-term (machinery) sub-loans accounted for 37% of the value, which was 10% more than originally expected.

<u>Sub-loan Terms</u>	<u>Percentage of Sub-loan Value</u>	
	<u>Appraisal Estimate</u>	<u>Actual</u>
Short-term	52	53
Medium-term	31	38
Long-term	<u>17</u>	<u>9</u>
Total	100	100

2.04 Throughout the course of the project about half the beneficiaries received medium term sub-loans. By June 1975, the situation was as follows:

	<u>Beneficiaries</u>		<u>Value of Sub-loan Portfolio</u>	
	<u>Number</u>	<u>Percent</u>	<u>Col\$'000</u>	<u>Percent</u>
Short-term	1,157	34	94,342	30
Medium-term	1,569	47	176,050	56
Long-term	<u>629</u>	<u>19</u>	<u>44,854</u>	<u>14</u>
Total	3,355	100	315,246	100

2.05 The average value per sub-loan was Col\$ 84,895 - US\$3,356 at the average exchange rate weighted for the value of sub-loans each year (Col\$ 25.30: US\$1.00). The average value of sub-loans made per sub-borrower totalled US\$9,541, which was similar to the appraisal estimate of US\$8,668 per sub-loan. The distribution by size of outstanding sub-loans in June 1975 is given in Annex 2, Table 5. It may be seen that 83% of the value was in sub-loans of over Col\$ 85,000, benefiting 44% of the number of families affected by the project.

2.06 Less than 9% of the portfolio was in sub-loans of no more than Col\$ 51,000, equivalent at that time to about US\$1,700, benefiting 41% of the project participants. More than half of the beneficiaries, as of June 30, 1975, lived in Tolima, one-third in Valle, and the balance in Huila, which was incorporated into the project area only in 1973.

<u>District</u>	<u>Number of Beneficiaries</u>	<u>Value</u>	<u>Average Sub-loan Outstanding (6/30/75)</u>
	<u>%</u>	<u>&amp;</u>	<u>Col\$</u>
Tolima	54	48	84,019
Valle	33	36	100,075
Huila	<u>13</u>	<u>16</u>	<u>119,957</u>
Total	100	100	93,963

2.07 Short-Term. In the original loan document it was specified that the Bank would finance 54% of the incremental expenditure incurred by the sub-borrowers specifically on fertilizers, plant protection chemicals and contracted services. The actual expenditure on these items in 1969 by each sub-loan applicant was to be taken as the basis on which to determine the incremental requirements for finance. This condition was almost impossible to implement, however, because the farmers who most urgently required short-term sub-loans either did not have, or were not prepared to disclose, itemized information on their expenditure during the previous semester. The amendments to the loan documents, agreed in April 1971, replaced this requirement with the statement "that withdrawals from the loan account under Category 1 . . . shall not exceed 54% of the aggregate amount of Seasonal Loans (including amounts lent by INCORA, CAJA and Participating Banks)." This proved to be a satisfactory administrative procedure, although the rationale for the percentage is not evident from the revised system of calculation.

2.08 A total of 5,469 sub-loans has been provided to complement the financing provided from the resources of other institutions - in particular Caja Agraria - for the seasonal expenses of crop production and harvesting. These sub-loans are repayable at the end of the crop season and have a maximum term of eight months.



2.09 The proportion of farm production and harvesting costs covered by the sub-loans issued under the project has varied considerably between seasons and between districts. In each case, the INCORA farm planners have sought to make up the difference between the farmer's own resources, credit available from other sources, and the cost of production. Further details on the proportions financed by the Bank loan are given in Annex 3 from which the following statistics for the first semester of 1975 are extracted.

Percentage of Total Cost of Production and Harvesting

Financed by Sub-loans under Loan 624-CO

	<u>Tolima</u>	<u>Valle</u>	<u>Huila</u>
Rice	20.0	-	32.1
Cotton	13.0	18.8	-
Beans	-	40.0	-
Corn	-	33.3	-
Sorghum	17.2	62.0	15.1
Soybeans	-	31.2	-
Sesame	15.0	-	-

2.10 The main crops financed under the project have been rice, cotton and sorghum all of which accounted for 83% of the area of all crops financed in the two semesters of 1974 (52,416 ha). The area of sorghum financed reached a maximum of 14,727 ha in 1973 which was also the year in which the largest area of corn was financed (2,584 ha). In Annex 4 of the Appraisal Report it is estimated that at full development (1972/73) the area of crops under the project would total 28,400 ha. This target was exceeded, however, as the area financed in 1973 totalled 49,337 ha and 52,416 ha in 1974.

2.11 Medium-Term. The project provided five-year sub-loans for 75% of the value of farm machinery and equipment purchased by farmers and local machinery contractors. In addition, three-year sub-loans were made for aircraft for crop spraying and spare parts for farm machinery and the spraying aircraft. Initially, only 50% of the cost of aircraft was eligible for financing, but this was raised to 75% in April 1971. The medium-term investment pattern has been as follows:

	<u>Projected at Appraisal %</u>	<u>Actual 1970 to June 1975 %</u>
Tractors and associated equipment	74.9	43.7
Combine harvesters	5.9	21.5
Aircraft for spraying	2.6	0.8
Irrigation equipment	0.0	7.8
Spares and miscellaneous equipment	<u>16.6</u>	<u>26.2</u>
	<u>100.0</u>	<u>100.0</u>

2.12 At appraisal it was expected that about three-quarters of the value of medium-term sub-loans would be for the purchase of tractors and equipment and only some 6% for combine harvesters. However, because the expansion of the area under rice was more rapid than expected, there was more emphasis on the purchase of combine harvesters. In the latter years of the project, there was considerable interest in Valle in investments in sprinkler irrigation equipment, which had not been envisaged at appraisal. Two factors that had significant effects on the relative importance of medium-term sub-loans within the project were the unexpectedly rapid increase in the price of farm machinery and the 50% increase in the exchange rate of the Colombian peso to the US dollar from 16.77 at appraisal to 25.30 as an average value over the longer than expected duration of the whole project. The contingencies item of about 10% included at appraisal was totally inadequate to cover such major changes and, as is shown in Annex 1, Table 1, in September 1974 it was necessary to increase Category 2 - Medium-term loans - by 60%, from US\$5.3 million to US\$8.5 million.

2.13 It was expected initially that a total of 1,081 units of tractors and equipment, including scrapers and levelers, would be purchased at an average cost of Col\$ 111,000 (US\$6,620), while in fact, only 656 units were purchased, with an average sub-loan value of Col\$ 170,000 (US\$6,720). Since the sub-loans were for 75% of the purchase price, it may be estimated that the average purchase price per unit was equivalent to about US\$8,960, or 35% above the appraisal estimate.

2.14 Long-Term. Sub-loans were made for 75% of the cost of permanent farm improvements such as irrigation and drainage canals, land leveling, roads, bridges, stores, water tanks and similar investments considered to be relevant to raising farm production. In addition, sub-loans were made to three companies for seed processing facilities. The sub-loans were for up to 10 years with a grace period of up to one year and then six-monthly installments for capital repayment.

2.15 Long-term investments were considerably less than had been projected originally; in terms of Colombian pesos the difference was 9%, but expressed in dollar equivalents, long-term investments were 39% less than expected at appraisal.

	Appraisal Estimate		Actual		Percentage Difference	
	Col\$	US\$	Col\$	US\$	Col\$	US\$
	'000	'000	'000	'000		
Farm constructions and land improvements	86,000	5,128	78,637	3,108	-9.1	-39.4

Part B - Technical Assistance

2.16 Training and Studies. The project set out to provide four farm planners and one credit specialist to be responsible for conducting "an all-round training program for farm planners until 1974". The appointment of four agronomists was called for by Section 5.03 of the Loan Agreement and, although the length of their service was not defined, it was implied that it would be the duration of the project - originally four years.

2.17 Under a French bilateral technical assistance program, four agronomists (SCET International) were assigned to the project before the loan became effective. This group was operational from 1968 until early 1972 but did not function at full strength through the entire period. The SCET group conducted four six-month courses for a total of 59 farm planners.

<u>Course Location</u>	<u>Year</u>	<u>Quarters</u>	<u>Number of Month</u>	<u>Number Attending the Course</u>
Palmira	1968	I & II	6	11
Palmira	1968	III & IV	6	18
Palmira	1969	II & III	6	16
Guamo	1970	III & IV	6	<u>14</u>
Total				59

2.18 The training courses were not resumed until 1972 INCORA staff ran the following three courses for a further 54 farm planners.

<u>Course Location</u>	<u>Year</u>	<u>Quarters</u>	<u>Number of Month</u>	<u>Number Attending the Course</u>
Guamo	1972	III - IV	3	16
Guamo	1973	II - III	3	20
Certo	1973/74	IV - I	3	<u>18</u>
Total				<u>54</u>

2.19 In 1970 and 1971 the SCET group completed studies of the technical and economic performance of groups of participating farmers in selected parts of the project area. In 1971 the group also collaborated with the then Operations Evaluation Division of the Bank (OED) in a study of the performance of participating farmers in the Coello irrigation district (Tolima 5). The main conclusions of the study were contained in the OED study of Bank Operations in Colombia (R72-131 pages 203 to 208) which is reproduced in Appendix 1 of Annex 3.

2.20 Vehicles for Farm Planners. The first ICB call for tenders to supply 35 four-wheel drive vehicles did not go out until September 1972 and it was early 1974 before the vehicles were in use. They were sold to farm planners who financed the purchases through five-year loans bearing 13% interest, administered

by the INCORA staff provident fund (Corporacion Empleados de INCORA). The farm planners were obliged to use the vehicles exclusively within the project areas for two years and to keep them at the service of INCORA for five years in all; alternatively they could sell them back to INCORA within five years of purchase. These details are relevant to Section 3.03 concerning the use of proceeds of the loan (see also Chapter III). A second tender for the supply of a further 26 four-wheel drive vehicles was approved by the Bank on June 4, 1975. Delays in the delivery of these vehicles resulted in the postponement of the final disbursement of the loan until February 26, 1976 (Annex 1 Table 2).

### Part C - Cesar Valley Studies

2.21 The project was originally expected to finance a feasibility study suitable for future financing of about 60,000 ha of land development in the Valle of the Cesar Ariguani; the establishment of a 100-ha experimental farm; the initiation of a pilot project on about 3,000 ha; and the preparation of a draft master plan for the full development of all the irrigable area of the valley. During 1970, however, it became clear that a more modest level of investment was warranted at that time. Therefore, the Bank proposed to the Minister of Agriculture in a letter dated February 9, 1971 the following modified description: "A feasibility study suitable as a basis for future financing of irrigated development of about 20,000 ha in the Cesar River Valley and the preparation of an outline of a draft master plan for the ultimate development of the entire irrigable area of said valley, all to be completed by September 1971." Although the Minister did not confirm his acceptance of the new description, in fact the work carried out followed these lines. The consultant firm, Tahal Tel Aviv of Israel, completed the study in 1972, but no action was taken on the basis of the findings because the Government decided that INCORA should first complete the development of irrigation and drainage projects, which had already been started in other parts of Colombia, and because the Cesar Valley included a considerable number of large land holdings. During 1975, it was reported that some interest was being shown by the Federal Republic of Germany and that it might be prepared to finance part of the costs of the development of the Cesar Valley which is now known to have considerable potential for increased farm production.

## III. DISBURSEMENTS AND PROJECT FINANCING

### Disbursements

3.01 Disbursements under Loan 624-CO proceeded at a slow rate until the last quarter of 1973 when they increased sharply following changes which had been introduced into the project in February and July 1973 (see para 1.08). Appraisal estimates and estimates of various supervision missions are compared in Annex 1 Table 2 with the actual disbursements. Since 1973, the rate of disbursement has been close to that projected in the supervision report of February 1973. Final disbursement was made on February 26, 1976.

Counterpart Finance

3.02 The Government arranged for INCORA to receive long-term loans at 4% interest from the Industrial Financing Fund (IFI) with which to finance its counterpart obligations under Loan 624-CO and loans from other sources. The terms, however, were less favorable to INCORA than originally proposed (para 1.08). The IFI loans are listed below:

June 1970	Col\$ 5 million
August 1971	Col\$ 10 "
November 1973	Col\$ 22 "
January 1974	Col\$ 3 "

3.03 From the total of Col\$ 40 million, INCORA assigned Col\$ 32,234,000 to the 624-CO project account, equivalent to US\$1.27 million at a weighted exchange rate of Col\$ 25.30: US\$1.00. The operating expenses of the project unit were paid from specified items in the regular INCORA budget. The expenses of INCORA project field staff totalled Col\$ 23,754,000 for the five years, 1970 to 1974, and in addition, the project headquarters staff was paid from the INCORA budget. It is not possible to determine precisely the cost to INCORA of the headquarters project staff, but it is estimated to have been Col\$ 5,747,000; thus, over five years the total contribution from the INCORA budget to the project amounted to Col\$ 29.5 million, equivalent to approximately US\$1.26 million, applying the average annual exchange rate to expenditures in each year, respectively. The total counterpart financing provided by the Government through INCORA over five years was, therefore Col\$ 61,735,000, equivalent to about US\$2.5 million, which was considerably less than the US\$8.2 million originally envisaged (para 1.06). During the project the Fondo Financiero Agropecuario (FFAP) of the Bank of the Republic provided the equivalent of US\$18.8 million or 54% of the farm working capital (Annex 1, Table 10).

3.04 The total cost of the project is estimated to have been US\$54.6 million or 28% above the appraisal estimate of US\$42.5 million (Annex 1, Table 11).

Commitment Charges, Interest and Amortization

3.05 During the first five-years of the project (1970-74) INCORA paid a total of Col\$ 4,001,000 to the Bank in commitment charges and interest. In addition, before the completion date of June 30, 1975, INCORA repaid the Bank two installments of the capital payment.

	<u>US\$ Equivalents</u>
December 15, 1974	575,000
June 15, 1975	595,000

Relationship between Operating Expenses and Lending Activities

3.06 The operating cost of the field services of INCORA were equivalent to 6.5% of the loans made in the first year of the project (1970). The proportionate cost doubled the next year to 13.6% and then declined as the

lending program picked up. In 1974 and 1975, the field service costs were about 3.5% of the value of new sub-loans made during these two years (Annex 1, Table 3). The full cost of the project operations - including head office expenditures - can be estimated with less precision as follows:

	Field Expenditure (Col\$ '000)	Head Office Budgeted Amounts (Col\$ '000)	Total (Col\$ '000)	Value of new Sub-loans (Col\$ '000)	Total Expenditure as a Percentage of the Value of New Sub-loans %
1970	1,257	453	1,710	19,377	8.8
1971	3,116	716	3,832	22,967	16.7
1972	3,653	804	4,457	41,253	10.8
1973	6,062	1,455	7,517	174,232	4.3
1974	<u>9,666</u>	<u>2,320</u>	<u>11,986</u>	<u>286,038</u>	<u>4.2</u>
	23,754	5,748	29,502	543,867	5.4

#### IV. OPERATING RESULTS

##### Project Objectives

4.01 Original objectives and justifications of the project were as follows:

(a) The Government's policy was to encourage increased production of non-coffee agricultural exports (mainly cotton) and import substitution crops (rice, corn, edible beans, and soybean). Farmers, however, were considered to be hampered by lack of credit. Demand for credit was estimated to be at least three times the current supply from all sources, and institutional credit was believed to reach less than 30% of farmers. Even this however was thought to be barely adequate for their needs. An increase in the amount of institutional credit was therefore considered essential if production was to be significantly increased.

(b) At full production (1976/77) the increase in local market value of annual production attributable to the project was expected to be about US\$22 million, of which over US\$10 million would be exportable. This would be about one-seventh of the earnings from agricultural exports (other than coffee) at the time of appraisal. A second important contribution expected was the reversing of the current downward trend in prosperity in the project area among agricultural labor. An additional benefit expected was the progressive availability for other projects after 1973 of a number of the 75 farm planners scheduled to be trained under the project.

### Operating Results

4.02 Actual operating results may be judged from

- (a) the surveys carried out in 1969 and 1970 with the assistance of the SCET group (Chapter VI) and summarized by the Bank (Appendix 1, Annex 3); and
- (b) the six-monthly field reports from the offices of INCORA located within the project areas.

The following section provides a summary of the six-monthly INCORA reports. In November 1975, INCORA initiated a survey of all project participants using a questionnaire attached as Appendix 2 of Annex 3. The purpose is to compare the financial position of beneficiaries before and after entering the project. The results of this survey were scheduled to be available in April 1976.

### Cost, Volume and Value of Production from Project Farms

4.03 The average production cost for the most important crops grown in the three project districts (Tolima, Valle and Huila) are shown for each year from 1970 to 1975 in Annex 3 Table 1, which also gives the amount per hectare financed by the sub-loans under Loan 624-CO. The proportion financed by the project was typically about 20% of total production and harvesting costs. In addition, Caja Agraria or a private bank usually provided around 30% and the sub-borrower covered the balance of the costs from his own resources. The relative proportions ranged widely, depending on numerous factors, including, in particular, the financing limits established each season for credit from sources other than the project.

4.04 The area financed each year, the average yields, and current farm-gate prices are combined in Annex 3 Table 2 to provide an estimate of the volume and value of production from the farms of all participants in the project. The estimated value directly attributable to the finance provided under the project is shown to have been between 24% (1970) and 18% (1974) of the total farm production.

## A.14

	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Average exchange rate Col\$: US\$	18.49	19.98	21.92	23.69	26.14
Area financed on participating farms, ha	3,986	8,721	20,334	49,337	52,416
Total value of production from area financed					
Col\$ million	31.54	60.40	201.58	667.62	1,006.43
US\$ million	1.71	3.02	9.20	28.18	38.50
Percentage of costs financed by project	24.0	18.3	18.5	22.6	18.3
Value of production directly attributable to the project					
Col\$ million	7.59	11.04	37.20	151.08	184.36
US\$ million	0.41	0.55	1.70	6.38	7.05

4.05 By 1974, the total annual production from project farms was valued at about US\$38.5 million. It is not possible to estimate what the value of production from these farms would have been without the project, but it seems probable that by 1974 the increase in the local market value of annual production from project farms equalled or even exceeded the US\$22 million projected at the time of appraisal for 1976-77. Since the project financed about 18% of the additional costs, the annual value directly attributable to the project was about US\$7 million in 1974.

Production Estimates from Project Farms  
( '000 mt)

	<u>Appraisal Estimates</u>		<u>Latest Estimate</u>	<u>Latest Estimate</u>	<u>Appraisal Estimate</u>
	<u>1968/69</u>	<u>1972/73</u>	<u>1972</u>	<u>1973</u>	<u>1976/77</u>
Cotton	69.5	139.0	9.1	14.9	183.0
Rice (paddy)	63.0	86.0	47.9	158.0	94.5
Soybeans	8.5	10.0	6.4	9.6	13.0
Beans	4.0	5.0	0	2.6	7.0
Corn	81.0	90.5	3.9	1.3	121.0

4.06 It was expected that an exportable surplus of cotton would be produced under the project; however, it was rice which increased most rapidly. The rice production from participating farms in 1974 was approximately equivalent in volume to the national exportable surplus in that year. At the exceptional world price for the 1974-75 season (US\$542/mt milled rice), the import substitution value of the production would have exceeded US\$50 million.



## V. ORGANIZATION, MANAGEMENT AND PERFORMANCE OF THE BORROWER

5.01 The Instituto Colombiano de la Reforma Agraria (INCORA) has been responsible for executing the project. It is an autonomous Government institution set up in 1961 to undertake agrarian reform and land development. Since 1964 it has been involved in the management of a number of credit programs within the areas affected by land reform, including irrigation and drainage districts. In addition to the Bank-financed project, INCORA has some 20 other Projects with credit components in various parts of the country. Between 1964 and 1974, sub-loans were made totalling Col\$ 3,546 million and in June 1975 about 47,800 beneficiaries were covered by the outstanding sub-loan portfolio. The project financed in part by Loan 624-CO (3,355 beneficiaries in June 1975) has thus constituted a relatively minor part of the overall credit program administered by INCORA. The size of INCORA operations is reflected in its balance sheets for years ending December 31, 1968 to December 31, 1974 which are contained in Annex 4 Tables 4 to 9.

5.02 Under the terms of the Loan and Project Agreements, the importance of rapidly building up a team of farm planners was strongly emphasized. However, in the early years of the project INCORA was not prepared to assign to this task the number of personnel considered necessary by the Bank. INCORA's view was that the demand for credit in the restricted project areas was not sufficient to justify hiring more staff to be trained as farm planners. The Bank's position was that until there was a sufficient number of trained farm planners it would not be possible for farmers to formulate their applications for sub-loans. At this time there was also considerable disagreement within INCORA as to whether or not the institution should be involved in assisting any but farmers with very small land holdings.

5.03 The Caja de Credito Agrario, Industrial y Minero (CAJA) is the main agricultural credit institution in Colombia, with over 800 branch offices and a staff of 13,000 persons. Under the terms of the Bank loan and subsidiary Agreements, CAJA provided the banking services at a charge of 1/13 of the interest collected - the interest rate was 13% - but INCORA assumed the credit risk. In the final years of the project, this system worked tolerably well, but basically it was an unsatisfactory compromise. As the main national agricultural credit institution, CAJA should have been fully responsible for the credit component of the project as was the case for the First and Second Livestock Projects financed by Bank Loans 448-CO and 651-CO. At the time of project appraisal, this was not accepted by the Colombian authorities who wished to promote integrated development within land reform areas through the operations of only one institution - INCORA, which was required to bear the risk of the sub-loan program in areas of land reform. During the course of the project, CAJA's position varied from providing only reluctant and inadequate support to being prepared to take full responsibility for all the credit operations and risks.

### Demand for Seasonal Credit

5.04 A basic premise of the appraisal mission was that insufficient credit was available to farmers within INCORA districts who had between 10

and 50 ha. In the early years of the project this appeared not to have been the case, since there was little interest in applying for sub-loans under the project, but evidence on this point is not conclusive; applications were constrained by the political uncertainties of that period and also by the very detailed documentation required for applications of sub-loans under the project. It appears probable, however, that the Bank loan would have been more effective if greater attention had been paid to persuading CAJA and other participating banks to raise their financing limits (Col\$/ha) for seasonal sub-loans. The project provided complementary funds to farmers who also had loans from other sources. There is no doubt that, at the local level, the project was eventually successful, but it is by no means clear that the Loan funds were incremental to the resources that would have been made available in the absence of Loan 624-CO.

#### Sub-loan Recoveries and Overdue Accounts

5.05 Up to June 30, 1975, a total of Col\$ 67 million had been collected in interest and Col\$ 369 million in capital repayments by sub-borrowers (Annex 4 Table 1). The value of sub-loans for which some installment of interest on capital repayment was overdue increased to Col\$ 43 million, or 15% of the sub-loan portfolio, at the end of 1974; however, the percentage of the portfolio with overdue components dropped to 11% by June 1975 (Annex 4 Table 2). Up to June 1975, INCORA had instituted 200 legal proceedings for sub-loan recoveries totalling Col\$ 16 million. By the same date, about half the value had been recovered although 132 cases were still in process of being resolved (Annex 4 Table 3). In general the situation is satisfactory since the value of the amount still in contention (Col\$ 7.6 million) is no more than 1.1% of the total value of sub-loans (Col\$ 684 million) made over the 5-1/2 years of the project.

#### Conclusion

5.06 After an unsatisfactory start, an effective organization was developed for the delivery and supervision of production and development credit within clearly defined areas of Colombia. The cost of this service was equivalent to between 4% and 5% of the value of sub-loans made each year. Since the Bank loan bears a 6-1/2% rate of interest and the sub-loans have been issued at 13%, there has only been a small margin of between 1-1/2% and 2-1/2% to cover the exchange risk assumed by the Borrower.

#### Covenants

5.07 Loan Agreement. Section 2.03 specified maximum aggregate amounts which might be withdrawn from Category 1 of the loan at the end of fiscal years 1970, 1971, 1972 and 1973. None of the maxima was reached because the development of the project was slower than expected.

5.08 Section 3.02 required international competitive bidding (ICB) for vehicles for farm planners, fertilizers and pesticides to be financed by the loan. All the vehicles were purchased through ICB, but agro-chemicals were not, following agreement with the Bank in 1971, because the quantities were small in proportion to the total amounts of these products handled by CAJA.

5.09 Section 5.01(4) required a Project Agreement between the borrower, INCORA and CAJA. This was prepared and signed by all parties on April 30, 1971.

5.10 Section 5.02(b) required the borrower to maintain the net value of the Seasonal Credit Fund (including the outstanding principal on sub-loans to farmers) from the end of 1973, after adequate provision for operating and administrative expenses and losses on sub-loans to farmers, at no less than Col\$ 171 million. The Seasonal Credit Fund actually never exceeded Col\$ 116 million, but apparently the Bank did not agree to this change in writing. In fact, the failure to attain the specified level did not adversely affect the project because the demand for complementary short-term credit within the project area was adequately covered by the resources available in the Fund.

5.11 Section 5.10 required the borrower to permit the prompt importation of spare parts necessary for farm machinery in the project area; no difficulty was experienced in this.

5.12 Project Administration Agreement. Section 4.01(a) required INCORA to engage a credit expert who, it was understood, would be internationally recruited. There was much delay in fulfilling this obligation, but eventually a Colombian national was appointed who was satisfactory to the Bank.

5.13 Section 4.01(b) provided that Caja Agraria and INCORA should cooperate fully to ensure that the sub-loans were made with efficiency and in conformity with sound administrative, financial and agricultural credit practices. Although there were initial problems of collaboration, a fairly efficient operational system was developed as the project progressed. However, individual farm plans failed to include an analysis of the incremental farm income, cash flows or estimates of rates of return.

5.14 Section 4.04(a) specified that sub-loans were to bear interest at the rate of 13% per annum on the principal amount withdrawn and outstanding. This rate was applied throughout the period of execution of the project, but it has now been proposed by the Colombian authorities that the rate applied to new sub-loans financed from the "roll-over" funds should be brought into line with the rate for agricultural loans rediscounted at the Bank of the Republic, currently 15%.

5.15 Section 5.10(a) required INCORA to maintain the on-going farm planners training program until 1974. This was a source of much disagreement with the Bank because INCORA insisted on running courses only for the number of persons it expected to require, while the Bank missions referred to the covenant as meaning that a school for farm planners should be maintained in full operation until 1974. The number of farm planners trained is shown in paragraphs 2.17 and 2.18.

5.16 Section 5.03, which called for four agronomists to be engaged to train the farm planners. This obligation was fulfilled by the assignment to the project of four French agronomists (para 2.12). This contract finished in 1972 and no replacements were engaged during the final three

years of the project since the Bank apparently did not press strongly enough for the hiring of specialists to replace the French team. INCORA considered that it required specialists in farm management and accounting rather than agronomists but it appears that the Bank did not agree on detailed revised terms of reference and the Colombians were not keen to hire foreign specialists.

5.17 Section 5.02 concerned the employment of consultants to carry out the Cesar River Study. This was satisfactorily completed.

5.18 Section 5.04 required audited project accounts to be maintained by both INCORA and Caja Agraria. INCORA accounts of field operations were well maintained and satisfactorily audited but they did not include the costs of headquarters operations. Furthermore, recoveries of the proceeds of the sale of project vehicles to project staff were not credited to the project account. Also, the Caja Agraria project account failed to distinguish clearly between medium and long-term sub-loans and the project account was not audited separately from the Caja Agraria overall account.

## VI. PERFORMANCE OF CONSULTANTS

### Technical Assistance

6.01 The four agronomists provided by SCET International were responsible principally for training INCORA farm planners, and between 1968 and 1970, they ran four six-month courses for a total of 59 farm planners. Initially the French agronomists were not effective because they did not speak Spanish and lacked experience in local farming conditions. In the opinion of the Colombians who were trained by the SCET agronomists, it took about one year for two of the Frenchmen to become sufficiently adjusted to local conditions to conduct relevant training courses; it is considered by INCORA staff that two of the SCET group were never fully effective.

6.02 In addition to running the training courses, the SCET group assisted INCORA staff in drawing up individual farm accounts and budgets as bases for sub-loan applications. An important objective was to show clearly the requirement of each applicant for funds to pay for quantities of "fertilizers, pesticides and mechanized farm services" additional to the value of those inputs purchased in the preceding season. This definition was required to fulfill the requirements of Loan 624-CO. However, the system and methodology developed by SCET was too detailed and sophisticated to be applied immediately in the project areas. It is therefore believed that one reason for the very restricted interest in short-term sub-loans during the first years of the project was the complicated analysis required to determine the amount of the working capital which could be financed under the Loan.

6.03 A third activity of the SCET group was to carry out technical and economic surveys of groups of farms participating in the project. In 1969, thirteen farms in the Valle No. 1 (Roldanillo, La Union, Toro) Irrigation

District were studied in detail. The survey was extended in 1970 to farms in the northern section of the Cauca Valley outside the irrigation district to provide a basis for comparison. Also in 1970 the SCET group with INCORA personnel carried out a survey of the performance of six groups of farms in the district of Coello and Saldana (Tolima 2-4 and 5). This latter study provided the basis for a factorial analysis, including 23 variables, proposed by the Bank's Operations Evaluation Division. The results were published in July 1971 and are summarized in Appendix 1 of Annex 3.

### Cesar Valley Studies

6.04 The Israeli consultant firm, Tahal Tel Aviv, carried out the studies in 1970 and 1971 and completed its report, behind schedule, in 1972. At the time the credit component of the project was completed (1975), it was not possible to form any new assessment of the performance of these consultants. It may be concluded, however, that the following evaluation contained in the Full Supervision Report dated August 31, 1971 still applies:

"The studies are behind schedule, as previously mentioned, however, they appear to be well organized, the approach to the work and the reasoning appear to the mission to be sound. The overall performance should be considered adequate under the circumstances."

## VII. PERFORMANCE OF THE BANK

7.01 In retrospect it appears that the Bank should not have agreed to the institutional framework for the project proposed by the borrower but should have been more responsive to the technical assessments of the Colombian and the FAO/CP project preparation team. The financing of part of the seasonal production costs gave rise to considerable administrative difficulties and problems of interpretation which delayed acceptance by would-be sub-borrowers of the medium- and long-term lines of credit.

7.02 Throughout the formative years of the project, the Bank showed great flexibility in amending the Loan documents to facilitate successful execution. As a result the project was eventually successful in attaining its original objectives of promoting development on medium sized farms within INCORA districts.

7.03 Since the appraisal mission there have been 16 supervision missions, including three for the Cesar Valley Studies and one for the completion report. The Bank has maintained a satisfactory degree of continuity in supervising this project (Annex 6).

7.04 The Bank was not successful in obtaining fully satisfactory, audited project accounts from Caja Agraria and INCORA and the monitoring was not sufficiently quantified to permit an accurate assessment of project success.

In order to have improved performance on these two components, the Bank would have had to devote a considerable amount of additional manpower.

#### VIII. OVERALL POLICIES IN THE SUBSECTOR

8.01 The implementation of the project was affected by the flux in official policies and public expectations with regards to land tenure reform, however following the publication of a new agrarian reform law in 1973 the situation became clearer. Within INCORA there were varying views of the way in which official policies should be implemented. In particular, the relevance of "medium sized" farmers as a target group for INCORA and the need for a Bank project unit was frequently disputed. The role of Caja Agraria as the main agricultural credit institution was also unclear within INCORA districts and furthermore it varied in response to changing political circumstances. These uncertainties were to be expected since the major reorganization of official institutions in the sub-sector took place only in 1968 during the period of preparation of the project now under review.

8.02 During the course of the Agricultural Credit Project a new national law was promulgated (Law 5/1973) which defined in detail the new official policy for agricultural credit. The Second Agricultural Credit Project to be financed by the Bank is designed to provide resources to be administered by the Bank of the Republic (BOR) in accordance with Law 5/1973. It remains to be seen how future credit operations within INCORA districts will be integrated fully into the new system which involves rediscounting at BOR by participating banks. CAJA, being a bank, would be eligible for re-discount facilities, but it is not yet clear how INCORA would have access to resources available at BOR.

COLOMBIA  
AGRICULTURAL CREDIT PROJECT  
Loan 624-CO

Schedule 1

Allocation of Proceeds of Loan

Amounts Expressed in Dollar Equivalents  
Agreements 6/27/69 and 4/30/71      Amendment 9/12/71

Category

Part A of the Project

1. Seasonal loans for fertilizers, pesticides and mechanized farming services <sup>1/</sup> and other farm inputs	5,500,000	5,500,000
2. Medium-term loans for agricultural machinery and equipment and crop-spraying aircraft	5,310,000	8,479,480
3. Long-term loans for on-farm improvements	3,100,000	1,700,000

Part B

4. Technical assistance (services of one credit expert and four agronomists)	450,000	140,000
5. 75 vehicles for farm planners	200,000	270,000

Part C

6. Cesar River Valley Study (consultants, services, equipment, materials and construction)	900,000	910,520
7. Unallocated	<u>1,540,000</u>	<u>          -</u>
Total:	<u>17,000,000</u>	<u>17,000,000</u>

<sup>1/</sup> Amendment dated 4/30/71.

COLC A

## Agricultural Credit Project

Loan 624-00

Schedule of Disbursements as of November 18, 1975  
(US\$'000)

Bank Fiscal Year and Quarter	Actual Total Disbursement	Appraisal Estimate	Revised Estimates of Supervision Missions					Previous Revised Estimate 06-10-75	Disbursement Estimate 11-18-75	Actual Disbursement as a Percentage of Appraisal Estimates and from March 1974 as a Percentage of February 1973 Estimates
			03-31-70	04-30-71	01-15-72	02-09-73	04-05-74			
1969/70 4th	111	1,180	680						9	
1970/71 1st	272		1,360							
2nd	441		2,176							
3rd	1,111		3,128							
4th	1,352	4,464	4,080	1,500					30	
1971/72 1st	1,658		5,032	2,000						
2nd	1,856		5,984	5,000	1,856					
3rd	2,184		7,208	6,000	2,400					
4th	2,497	8,868	8,432	8,000	3,000				28	
1972/73 1st	2,623		9,656	9,000	3,500					
2nd	2,869		10,880	11,000	4,200					
3rd	3,255		12,410	12,000	4,700	4,500				
4th	4,068	12,102	13,940	14,000	5,200	5,200			34	
1973/74 1st	5,981		15,470	15,000	5,900	5,900				
2nd	6,941	17,000	17,000	17,000	7,000	7,000			41	
3rd	8,138					8,250			99	
4th	10,735					9,500	10,400		113	
1974/75 1st	13,855					10,750	12,000		129	
2nd	14,850					12,000	13,700		124	
3rd	15,938					13,250	15,400	16,900	120	
4th	16,766					14,500	17,000	17,000	116	
1975/76 1st	16,766					15,700			107	
2nd (11/18/75)	16,766					17,000		17,000	99	
3rd										
4th										
Closing Date:	12-31-73							06-30-75	06-30-75	06-30-75

November 19, 1975



COLOMBIA  
AGRICULTURAL CREDIT PROJECT

Loan 624-CO

Operating Expenses of INCORA Project Field Unit and Loan Portfolio

(Col\$ '000)

<u>Year</u>	<u>Operating Expenses</u>	<u>New Sub-loan</u>	<u>Sub-loan Portfolio</u>	<u>Operating Expenses % of New Sub-loans</u>	<u>Operating Expenses % of Sub-loan Portfolio</u>
1970	1,257	19,377	18,926	6.5	6.6
1971	3,116	22,967	30,572	13.6	10.2
1972	3,653	41,253	51,590	8.9	7.1
1973	6,062	174,232	162,358	3.5	3.7
1974	9,666	286,038	282,025	3.4	3.4
1975 to June		140,470	315,246		
1970 to 1974	23,754	543,867	-	4.4	
1970 to June 1975		684,337	-		

December 1, 1975

COLOMBIA

AGRICULTURAL CREDIT PROJECT

Loan 624-CO

Completion Report

Expected at Appraisal

Project Financing: Expected at Appraisal and Estimated Actual Financing

	Sub-Borrowers		Government				Total	
	'000 US\$	%	INCORA	Bank	INCORA	Bank	'000 US\$	'000 Col\$
1. Farm Working Capital	12,200.0	52	5,100.0	22	6,000.0	26	23,300.0	390,500
2. Medium-term Farm	3,900.0	37	800.0	8	5,900.0	55	10,600.0	177,200
3. Long-term Farm Investment	1,200.0	24	500.0	9	3,300.0	67	5,000.0	85,800
Sub-total	17,300.0	44	6,400.0	17	15,300.0	39	38,900.0	653,500
4. Technical Assistance)			100.0	14	900.0	86	1,000.0	15,500
5. Vehicles )			1,700.0	64	900.0	36	2,600.0	48,000
6. Cesar Valley Study								
Total	17,300.0	41	8,200.0	19	17,000.0	40	42,500.0	712,000

Estimated Actual Financing

	Sub-Borrowers		Government				Bank <sup>1/</sup>		Total		
	'000 US\$	%	FFAP	INCORA	Sub-total	INCORA	Bank	'000 US\$	%		
1. Farm Working Capital	10,411.5	30	18,793.5	54	18,793.5	54	5,500.0	16	34,705.0	100	
2. Medium-term Farm Investment	3,462.4	25		1,934.2	14	1,934.2	14	8,453.1	61	13,849.7	
3. Long-term Farm Investment	786.4	25		538.4	17	538.4	17	1,820.7	58	3,145.5	
Sub-total	14,660.3	28	18,793.5	36	2,472.6 <sup>2/</sup>	5	21,266.1	41	15,773.8	31	51,700.2
4. Technical Assistance				48.1	40	48.1	40	72.7	60	120.8	
5. Vehicles				6.4	3	6.4	3	243.0	97	249.4	
Sub-total	0.0	0	0.0	54.5 <sup>2/</sup>	15	54.5	15	315.7	85	370.2	
6. - Cesar Valley Study				1,618.7 <sup>3/</sup>	64	1,618.7	64	910.5	36	2,529.2	
Total	14,660.3	27	18,793.5	34	4,145.8	8	22,939.3	42	17,000.0	31	54,599.6

<sup>1/</sup> Fully disbursed February 26, 1976.

<sup>2/</sup> Covered by Col\$32 million from Industrial Financing Fund (IFI); Col\$ 5 million from INCORA; balance from recoveries from project subloans.

<sup>3/</sup> INCORA special budget for Cesar Valley Study.

August 11, 1976

COLOMBIA  
AGRICULTURAL CREDIT PROJECT

Loan 624-CO

Total Number of Borrowers and Terms of Sub-loans, 1970 to June 30, 1975

	<u>Number of Borrowers</u>	<u>Borrowers with Sub-loans Outstanding as of June 30, 1975</u>
Short term	1,318	604
Medium term	799	734
Long term	235	201
Short and medium term	233	211
Short and long term	137	110
Medium and long term	86	82
Short, medium and long term	<u>27</u>	<u>      </u>
Total	2,835	1,942

September 30, 1976

COLOMBIA  
AGRICULTURAL CREDIT PROJECT  
Loan 6211-CO

Number and Value of Sub-loans and Portfolio Outstanding at Ends of Periods

<u>Year</u>	<u>Average Exchange Rate</u>	<u>Sub-loans issued during period</u>			<u>Sub-loan portfolio end of period</u>		
		<u>Number</u>	<u>Value</u>		<u>Number of Beneficiaries</u>	<u>Value</u>	
			<u>Col\$'000</u>	<u>US\$'000</u>		<u>Col\$'000</u>	<u>US\$'000</u>
1970	18.49	236	19,377	1,048	236	18,926	1,024
1971	19.98	423	22,967	1,149	454	30,572	1,530
1972	21.92	899	41,253	1,882	877	51,590	2,354
1973	23.69	2,382	174,232	7,355	2,271	162,358	6,853
1974	26.14	2,846	286,038	10,943	3,169	282,025	10,789
1975 (June)	30.10	<u>1,275</u>	<u>140,470</u>	<u>4,667</u>	3,355	315,246	10,473
Totals	25.30	8,061	684,337	27,044			

September 30, 1976

COLOMBIA  
AGRICULTURAL CREDIT PROJECT  
Loan 624-CO

Distribution by Size of Sub-loan of the Number of Beneficiaries  
and Value of Sub-loan Portfolio as of 30 June 1975

<u>Col\$</u>	<u>Number of Beneficiaries</u>		<u>Value of Sub-loan Portfolio</u> <u>June 1975</u>	
	<u>Number of</u> <u>Families</u>	<u>%</u>	<u>Col\$'000</u>	<u>%</u>
Up to 8,500	59	1.8	226	0.1
8,501-17,000	259	7.7	1,920	0.6
17,001-34,000	565	16.8	9,888	3.1
34,001-51,000	489	14.6	15,821	5.0
51,001-85,000	512	15.3	24,783	7.9
85,001-170,000	795	23.7	71,715	22.7
Over 170,000	<u>676</u>	<u>20.1</u>	<u>190,893</u>	<u>60.6</u>
Total	<u>3,355</u>	<u>100.0</u>	<u>315,246</u>	<u>100.0</u>

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November 18, 1975

COLOMBIA  
AGRICULTURAL CREDIT PROJECT  
Loan 624-CO

Sub-loan Portfolio on June 30, 1975

Number of Beneficiaries According to District and Type of Enterprise

	<u>Tolima</u>		<u>Valle</u>		<u>Huila</u>		<u>Total</u>		
	<u>Number</u>	<u>Value Col\$'000</u>	<u>Number</u>	<u>Value Col\$'000</u>	<u>Number</u>	<u>Value Col\$'000</u>	<u>Number</u>	<u>Value Col\$'000</u>	<u>%</u>
Individual small farms	270	6,810	115	4,301	30	3,704	415	14,815	4.7
Beneficiaries in group of small farmers	216	18,158	90	9,281	261	31,967	567	59,406	18.8
Medium farmers	<u>1,315</u>	<u>126,351</u>	<u>926</u>	<u>99,603</u>	<u>132</u>	<u>15,071</u>	<u>2,373</u>	<u>241,025</u>	<u>76.5</u>
Total	<u>1,801</u>	<u>151,319</u>	<u>1,131</u>	<u>113,185</u>	<u>423</u>	<u>50,742</u>	<u>3,355</u>	<u>315,246</u>	<u>100.0</u>

November 19, 1975

COLOMBIA

AGRICULTURAL CREDIT PROJECT

Loan 624-CO

Short-term (Seasonal) Sub-loans

	<u>Average Exchange Rate</u>	<u>Number of Sub-loans (short-term)</u>	<u>Value of Sub-loans</u>		<u>Average Value per Sub-loan</u>		<u>Area of Crops ha</u>	<u>Area Financed per Sub-loan ha</u>	<u>Average Value of Sub-loan per ha</u>	
			<u>Col\$ '000</u>	<u>Col\$</u>	<u>US\$</u>	<u>Col\$</u>			<u>US\$</u>	
1970	18.49	90	4,403	48,922	2,646	3,986	44	1,105	60	
1971	19.98	261	8,464	32,429	1,623	8,721	33	970	49	
1972	21.92	592	21,303	35,985	1,642	20,334	34	1,048	48	
1973	23.69	1,536	75,325	49,040	2,070	49,337	32	1,527	64	
1974	26.14	2,804	174,043	62,070	2,375	52,416	19	3,320	127	
1975 (June)	30.10	<u>906</u>	<u>82,139</u>	<u>90,661</u>	<u>3,012</u>	<u>17,943</u>	<u>18</u>	<u>5,037</u>	<u>167</u>	
Total	25.30	5,469	365,677	66,864	2,642	152,737	27	2,476	98	

September 30, 1976

COLOMBIA

AGRICULTURAL CREDIT PROJECT

Loan 624-CO  
Medium and Long-term Investments

	<u>Appraisal Investment Estimates</u>				<u>Actual Sub-loan Value</u> <u>1970 to June 30, 1975</u>			
	<u>Number</u>	<u>Unit</u>		<u>Total Cost</u>	<u>Number</u>	<u>Unit</u>		<u>%</u>
		<u>Cost</u>	<u>Cost</u>			<u>Cost</u>	<u>Cost</u>	
		<u>Col\$'000</u>	<u>Col\$'000</u>		<u>Col\$'000</u>	<u>Col\$'000</u>		
<b>A. <u>Medium term</u></b>								
<b>1. <u>Tractors and equipment</u></b>								
Tractors, 65 hp	720	115	82,800					
Tractors, 35 hp	350	90	31,500					
Tractors - crawlers	5	700	3,500					
Scrapers, levelers, etc.	<u>6</u>	<u>450</u>	<u>2,700</u>					
Sub-total	1,081	111	120,500	68.1	656	170	111,478	43.7
2. Combine harvesters	37	250	9,300	5.3	109	504	54,904	21.5
3. Aircraft for spraying	13	320	4,200	2.4	4	544	2,174	0.8
4. Irrigation equipment				0.0	113	176	19,885	7.8
<b>5. <u>Spares and other implements</u></b>								
General			26,000					
Aircraft spares			<u>800</u>					
Sub-total			26,800	15.1			66,845	26.2
6. <u>Contingencies</u>			16,200	9.1				
Total			<u>177,000</u>	<u>100.0</u>			<u>255,286</u>	<u>100.0</u>
<b>B. <u>Long term</u></b>								
1. Farm constructions							30,700	
2. Land improvements					13,185 ha		<u>28,278</u>	
Total Including Contingencies			<u>86,000</u>				<u>58,978</u>	

ANNEX 2  
Table 10



## AGRICULTURAL CREDIT PROJECT

Loan 624-CO

## Production Costs and Proportion Financed by Loan 624-CO

Project District	Crop	1970				1971			
		Cost/ha Col\$	Financed by Loan 624-CO Col\$	Yield kg/ha	% of Cost Financed by Loan 624-CO	Cost/ha Col\$	Financed by Loan 624-CO Col\$	Yield kg/ha	% of Cost Financed by Loan 624-CO
Tolima	Rice (paddy)	6,000	1,400	6,500	23.3	6,800	1,200	6,200	17.6
	Cotton	-	-	-	-	6,500	1,000	1,900	15.4
	Sorghum	1,800	1,500	1,800	27.8	2,300	500	1,800	21.7
	Sesame	1,600	500	460	31.2	2,100	500	500	23.8
Valle	Rice (paddy)	-	-	-	-	-	-	-	-
	Cotton	-	-	-	-	-	-	-	-
	Beans	-	-	-	-	-	-	-	-
	Corn	2,400	700	3,000	29.1	3,500	700	1,400	20.0
	Sorghum	-	-	-	-	2,200	700	2,000	31.8
	Soybeans	2,300	500	1,800	21.7	3,500	900	1,800	25.7
Huila	Rice (paddy)	-	-	-	-	-	-	-	-
	Sorghum	-	-	-	-	-	-	-	-
Project District	Crop	1972				1973			
		Cost/ha Col\$	Financed by Loan 624-CO Col\$	Yield kg/ha	% of Cost Financed by Loan 624-CO	Cost/ha Col\$	Financed by Loan 624-CO Col\$	Yield kg/ha	% of Cost Financed by Loan 624-CO
Tolima	Rice (paddy)	7,500	1,300	6,200	17.3	8,500	1,700	6,500	20.0
	Cotton	7,300	900	1,700	12.3	7,800	1,700	1,500	21.8
	Sorghum	2,700	600	2,000	22.2	3,100	900	2,200	29.0
	Sesame	2,500	700	600	28.0	3,000	900	400	30.0
Valle	Rice (paddy)	-	-	-	-	-	-	-	-
	Cotton	7,400	1,400	2,200	18.9	7,700	1,700	1,800	22.1
	Beans	-	-	-	-	-	-	-	-
	Corn	2,600	900	1,600	34.6	4,100	1,000	1,400	24.4
	Sorghum	3,000	500	2,500	16.7	3,500	1,100	2,000	31.4
	Soybeans	4,000	900	2,100	22.5	4,900	1,300	1,800	26.5
Huila	Rice (paddy)	-	-	-	-	8,100	1,800	4,800	22.2
	Sorghum	-	-	-	-	-	-	-	-
Project District	Crop	1974				1975			
		Cost/ha Col\$	Financed by Loan 624-CO Col\$	Yield kg/ha	% of Cost Financed by Loan 624-CO	Cost/ha Col\$	Financed by Loan 624-CO Col\$	Yield kg/ha	% of Cost Financed by Loan 624-CO
Tolima	Rice (paddy)	14,000	3,700	5,900	26.4	16,500	3,300	5,700	20.0
	Cotton	14,500	3,300	1,500	22.7	17,300	2,400	1,800	13.0
	Sorghum	5,600	1,200	2,100	21.4	5,800	1,000	2,100	17.2
	Sesame	4,500	1,000	500	21.2	4,700	700	600	15.0
Valle	Rice (paddy)	13,500	1,700	5,300	12.6	-	-	-	-
	Cotton	14,000	2,000	1,900	14.3	17,000	3,200	2,000	18.8
	Beans	6,500	2,000	1,500	30.8	7,500	3,000	1,600	40.0
	Corn	4,800	2,000	2,400	41.7	6,000	2,000	2,100	33.3
	Sorghum	5,400	2,100	2,200	38.9	6,300	3,900	2,200	62.0
	Soybeans	7,000	2,000	2,000	28.6	8,000	2,500	2,000	31.2
Huila	Rice (paddy)	13,300	3,700	5,000	27.8	16,200	5,200	5,000	32.1
	Sorghum	5,400	1,100	2,100	20.4	6,600	1,000	2,100	15.1

COLOMBIA

AGRICULTURAL CREDIT PROJECT

Loan 624-CO

Area and Estimated Production Volume and Value from Sub-borrowers Farms

		Cotton	Rice (Paddy)	Soybeans	Beans	Corn	Sub-total	Seasame	Sub-total	Peanuts	Sorghum	Others	Total
1970	Area	ha	2,510	171	-	602	3,283	175	3,458	40	430	58	3,986
	Yield	kg/ha	6,500	1,800	-	3,000	-	460	-	-	1,800	-	-
	Production	t	16,315	308	-	1,806	-	81	-	-	774	-	-
	Price	Col\$/t	1,600	3,000	-	1,660	-	4,860	-	-	1,450	-	-
	Value	Col\$'000	26,104	924	-	2,998	30,026	394	30,420	-	1,122	-	31,542
	% Financed by Project		23.3	21.7	-	29.1	-	31.2	-	-	27.8	-	24.0
	Value Attributable to Project	Col\$'000	6,082	201	-	872	7,155	123	7,278	-	312	-	7,590
1971	Area	ha	1,573	4,194	1,035	137	1,059	7,998	95	8,093	604	24	8,721
	Yield	kg/ha	1,630	6,200	1,800	-	1,400	500	-	-	1,900	-	-
	Production	t	2,564	26,003	1,863	-	1,483	48	-	-	1,148	-	-
	Price	Col\$/t	5,500	1,370	3,100	-	1,900	5,000	-	-	1,600	-	-
	Value	Col\$'000	14,102	35,624	5,775	-	2,818	58,319	240	58,559	1,837	-	60,396
	% Financed by Project		15.4	17.6	25.7	-	20.0	23.8	-	-	26.8	-	18.3
	Value Attributable to Project	Col\$'000	2,171	6,270	1,484	-	564	10,489	57	10,546	492	-	11,038
1972	Area	ha	4,807	7,722	3,034	113	2,421	18,097	224	18,321	45	40	20,334
	Yield	kg/ha	1,900	6,200	2,100	-	1,600	600	-	-	2,250	-	-
	Production	t	9,133	47,876	6,371	-	3,874	134	-	-	4,338	-	-
	Price	Col\$/t	8,500	1,520	5,100	-	2,400	5,300	-	-	2,000	-	-
	Value	Col\$'000	77,631	72,772	32,492	-	9,298	192,193	710	192,903	8,676	-	201,579
	% Financed by Project		15.7	17.3	22.5	-	34.6	28.0	-	-	19.5	-	18.5
	Value Attributable to Project	Col\$'000	12,188	12,590	7,311	-	3,217	35,306	199	35,505	1,692	-	37,197
1973	Area	ha	6,624	23,301	1,347	67	2,584	33,923	445	34,368	14,727	242	49,337
	Yield	kg/ha	1,700	6,500	1,800	-	1,400	400	-	-	2,100	-	-
	Production	t	11,261	151,457	2,425	-	3,618	178	-	-	30,927	-	-
	Price	Col\$/t	11,500	2,800	5,600	-	3,300	10,800	-	-	2,800	-	-
	Value	Col\$'000	129,502	424,080	13,580	-	11,939	579,101	1,922	581,023	86,596	-	667,619
	% Financed by Project		21.9	21.1	26.5	-	24.4	30.0	-	24.0	30.2	-	22.6
	Value Attributable to Project	Col\$'000	28,361	89,481	3,599	-	2,913	124,354	577	124,931	26,152	-	151,083
1974	Area	ha	9,960	28,208	4,781	1,742	530	45,221	1,040	46,261	5,204	951	52,416
	Yield	kg/ha	1,500	5,600	2,000	1,500	2,400	500	-	-	2,150	-	-
	Production	t	14,940	157,965	9,562	2,613	1,272	520	-	-	11,189	-	-
	Price	Col\$/t	13,000	4,200	7,000	11,000	3,600	11,500	-	-	3,800	-	-
	Value	Col\$'000	194,220	663,453	66,934	28,743	4,579	957,929	5,980	963,909	42,518	-	1,006,427
	% Financed by Project		18.6	15.7	28.6	30.8	41.7	22.2	-	24.0	30.2	-	18.3
	Value Attributable to Project	Col\$'000	36,125	104,162	19,143	8,853	1,909	170,192	1,327	171,519	12,840	-	184,359
1975	Area	ha	-	-	-	-	-	-	-	-	-	-	-
	Yield	kg/ha	1,800	5,400	2,000	1,600	2,100	600	-	-	2,150	-	-
	Production	t	2,668	-	2,241	770	729	200	-	-	2,250	-	-
	Price	Col\$/t (to June)	14,000	4,000	6,400	15,000	4,500	11,700	-	-	3,800	-	-
	Value	Col\$'000 <sup>(1)</sup>	-	-	-	-	-	-	-	-	-	-	-
	% Financed by Project		-	-	-	-	-	-	-	-	-	-	-
	Value Attributable to Project	Col\$'000	-	-	-	-	-	-	-	-	-	-	-

COLOMBIA

AGRICULTURAL CREDIT PROJECT

Loan 624-CO

Project Performance Review 1971

Agricultural Credit for Middle-size Farms (Loan 624-CO)

The purpose of this project was to increase the productivity of major crops for export and import substitution (cotton, rice, maize, beans and soya) by providing institutional credit to farmers who were believed to have had access only to limited credit from private sources and to be farming relatively inefficiently as a result. It was thought that middle-size farmers (10-50 hectares) in the project areas (portions of the Departments of Tolima and Valle) could not obtain their credit requirements from either the commercial banks or money lenders, and that, being in INCORA areas, they could not get credit from the Caja Agraria; and, even if they could, total funds available were insufficient to meet the need for credit.

The project was designed to provide incremental seasonal credit for fertilizers, pesticides, and mechanized farming services (52% of sub-loan disbursements), medium-term credit for agricultural machinery (30%), and loan-term credit for on-farm improvements (18%). Total estimated project costs were about US\$42.5 million equivalent; the foreign exchange component was estimated at US\$12.4 million; and the Bank loan, signed in June 1969, was for US\$17.0 million. INCORA was to be responsible for executing the project. Bank disbursements amounted to US\$0.44 million by the end of 1970, compared to a planned disbursement of US\$5.5 million by that date. <sup>1/</sup> This slow rate of disbursements is apparently largely due to the preference of project farmers for more readily available and continuous sources of credit than INCORA. Project sub-loan disbursements, as of March 31, 1971, amounted to US\$1.16 million equivalent, and the prevailing pattern of disbursements has been substantially different from the one projected at appraisal: medium-term credit accounts for 74.6%, short-term credit for 22.5%, and long-term credit for 2.9%.

The approach to evaluation consists of some illustrative analyses of the technical, financial and economic characteristics of a large sample of

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<sup>1/</sup> Actual disbursement under the loan reached US\$1.9 million by the end of 1971, but US\$0.7 million of this was for a feasibility study of an irrigation project.

Footnote: Extract from OED Report on Bank Operations in Colombia, R-72-131 pages 203-208.

project farmers in Tolima, the principal region where disbursements have been made to date. The general findings suggest that the availability of credit (coming from many sources) has been adequate, and moreover that the use of additional credit is not associated with increased efficiency. The project sample indicates that for 1970 project farmers had, on the average, a total capital of US\$1,080 equivalent per hectare and a much lower equity capital of US\$660 per hectare and that they were benefiting to a great extent from an already favorable credit situation giving them on the average US\$420 per hectare. It is noteworthy that substantial increases in production and productivity have been achieved, independently of the project, by the general introduction of new varieties of seeds and insecticides; for instance, yields on new strains of rice introduced in the last three years are about 75% above those on the principal variety previously used. The following are tentative indications which could be gathered with respect to each individual credit type.

For short-term credit it was not possible to find any significant correlation between the use of additional short-term credit (from whatever sources) and increases in physical or economic yields. There was apparently no demand for short-term financing for the additional use of fertilizer and pesticides, so the Bank allowed INCORA to use the project funds to finance other costs such as those of land preparation, planting and weeding, labor costs, non-mechanized harvesting, packs, and interest on project financing. This may merely amount to reducing the costs of production of project farmers through a reduction of the interest rate they could have otherwise obtained and afforded. On the average, the project finances the farmers US\$53 equivalent per hectare in short-term credit. Over the last few years, suppliers credit has been available at 16% to 18%, but even if the highest marginal rate of 24% assumed in the appraisal report is adopted, then the saving which accrues to the project farmers from taking project financing at 14% amounts to about US\$5 per hectare, which is not very significant in relation to their income. Project farmers, on the average, have an annual output of US\$675 per hectare, a gross margin of US\$292 per hectare, a total annual net farm income of US\$10,440, and an annual net cash inflow of US\$9,400, putting them in the upper five percent income bracket of the Colombian population. Moreover, this is only a minimum income directly related to the size of the area which is accounted for in this study; it does not account for any income they may receive from other farms in their possession or from other sectors. Thus it seems doubtful that the inclusion of additional short-term credit in the project was as necessary as originally envisaged by the Bank, and the absence of any very effective link between the short-term, medium-term, and long-term components of project financing casts some doubt on the desirability of Bank financing in this situation. It is interesting to note, in this connection, that when the loan was under consideration, reservations were expressed in the Bank regarding both the wisdom of financing short-term credit and the size of farmers included in the project.

For medium-term credit, the analysis also indicates no significant correlation between additional medium-term financing and increases in

efficiency. However, the level of aggregation at which the marginal productivity of machinery was analyzed does not provide a sufficient basis to evaluate the real costs and benefits of increased mechanization. There are indications that renting out machinery is very profitable, not because of the impact of mechanization on efficiency, but because middle-size farmers prefer to decrease their dependence on labor. As disbursed through early 1971, the project was essentially a mechanization loan. Since the administrative costs of the project have amounted to a third of the value of sub-loan disbursements, it might have been more appropriate to disburse this type of credit directly through the commercial banks.

For long-term credit, the analysis indicates that the opportunities faced by project farmers do not make long-term improvement a particularly worthwhile proposition. In Tolima, their average return on working capital (including machinery, cattle and inventories) is 52% while their average return on total capital is 25%. Consequently, project farmers and entrepreneurs have a strong financial incentive to rent land. The incentive to purchase additional land comes next, and it is also attractive for prestige considerations. Long-run intensification of land development is a relatively low financial priority and, in Tolima, it may be also questionable on technical grounds. There are constraints on the capacity of the total irrigation system, and additional improvements are required in the primary network before it is possible for the individual farmers to make on-farm investments to intensify production.

The preceding analysis suggests that the provision of additional credit to middle-size farmers in Tolima was probably not as essential as originally believed, but conditions may well not be the same in INCORA irrigation districts other than Valle and Tolima. There may be many opportunities for productive investments in other irrigation districts, but the feasibility studies demonstrating the efficiency with which credit can be used for this purpose are lacking. The Bank has always expressed a willingness to extend credit to these other areas if INCORA produced the required feasibility studies. However, this is quite a complex undertaking which seems beyond the present capabilities of INCORA. Had the Bank commissioned the technical consultants of the project (SCET) to make such a study, it could have contributed to the staff training program, which these consultants were providing very effectively and it could have been completed within a year, thereby providing a sound basis for channeling the credit needed for long-term productive investments in these irrigation districts, while making a necessary and valuable contribution to their management. A complementary and important alternative which the Bank might consider to increase the production of export and import substitute crops, and to improve agricultural productivity and rural incomes while making lasting contribution to institution building, would be to channel more funds to small holders who presently suffer from serious shortages of working capital.

COLOMBIA  
AGRICULTURAL CREDIT PROJECT

Loan 624-CO

Table 1

Sub-loan Recoveries  
(Col\$'000)

	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975 to June</u>	<u>Total</u>
Interest	1,135	2,594	4,184	13,015	28,823	17,321	67,072
Capital	451	11,321	20,235	63,464	168,072	105,549	369,092

Table 2

Overdue at End of Period

	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>(June) 1975</u>
Value Col\$'000	145	1,647	4,184	8,547	42,932	35,812
Percent	0.80	5.40	8.11	5.26	15.22	11.36

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November 20, 1975

COLOMBIA  
AGRICULTURAL CREDIT PROJECT  
Loan 624-CO

Recovery Proceedings, 1970 to June 1975

	<u>Seasonal Sub-loans Short Term</u>		<u>Machinery Sub-loans Medium Term</u>		<u>Farm Improvement Sub-loans Long-Term</u>		<u>Total Sub-loans</u>	
	<u>Number of Cases</u>	<u>Value Col\$'000</u>	<u>Number of Cases</u>	<u>Value Col\$'000</u>	<u>Number of Cases</u>	<u>Value Col\$'000</u>	<u>Number of Cases</u>	<u>Value Col\$'000</u>
Proceedings initiated	90	5,413	87	9,302	23	1,475	200	16,190
Proceedings concluded and value recovered	33	1,985	30	2,184	5	159	68	4,328
Proceedings partially concluded and value recovered	57	<u>870</u>	57	<u>2,887</u>	18	<u>539</u>	132	<u>4,296</u>
Balance to be recovered		<u>2,558</u>		<u>4,231</u>		<u>777</u>		<u>7,566</u>

ANNEX 4  
Table 3

November 21, 1975





