International Bank for Reconstruction and Development

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FROM: Vice President and Secretary

February 21, 1978

PROJECT PERFORMANCE AUDIT REPORT

Honduras - First Livestock Development Project (Credit 179-HO)

Attached is a copy of a memorandum from Mr. Weiner with its accompanying report entitled "Project Performance Audit Report: Honduras First Livestock Development Project (Credit 179-HO)" dated February 21, 1978 (Report No. 1920) prepared in the Operations Evaluation Department.

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THE WORLD BANK
Washington, D.C. 20433
U.S.A.

Office of Director-General
Operations Evaluation

February 21, 1978

MEMORANDUM TO THE EXECUTIVE DIRECTORS AND THE PRESIDENT

SUBJECT: Project Performance Audit Report: Honduras First Livestock Development Project (Credit 179-HO)

Attached for information is a copy of a report entitled "Project Performance Audit Report - Honduras First Livestock Development Project (Credit 179-HO)" prepared by the Operations Evaluation Department.

Attachment

Mervyn L. Weiner

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The World Bank

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Report No. 1920

PROJECT PERFORMANCE AUDIT REPORT

HONDURAS FIRST LIVESTOCK DEVELOPMENT PROJECT

(CREDIT 179-HO)

February 21, 1978

Operations Evaluation Department

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Project Performance Audit Report

HONDURAS FIRST LIVESTOCK DEVELOPMENT PROJECT

(Credit 179-HO)

PREFACE

Credit 179-HO, signed in March 1970 for US$2.6 million, was closed, fully disbursed, in December 1975. Its principal objectives were to raise the country's low level of beef consumption and support diversification of agriculture, especially in production for export. It was followed by Credit 434-HO, signed in October 1973 for US$6.6 million, which helps finance similar activities under the Second Livestock Development Project. The livestock sub-loans of both these projects have mostly been directed toward medium and large scale ranches and dairy farms. More recently, Credit 628-HO, signed in July 1976 for US$14.0 million for the Agricultural Credit Project, provides funds for on-lending to both Livestock and other agricultural activities. The target population of the third project is different from that of the earlier two projects.

This Project Performance Audit Report (PPAR) includes the project completion report (PCR) on Credit 179 issued by the Latin America and the Caribbean Regional Office in September 1975. The PCR concentrated on matters of implementation and disbursement, and, to the extent data then permitted, physical evidence of project impact. A number of subjects which are commonly addressed in PCRs of more recent date, for example on the preparation and appraisal period, Borrower and Bank performance, and the adjustments made in the repeater projects, were not discussed. Nor did the PCR update the rate of return estimates of appraisal, an exercise which would have required special field surveys. OED has added a brief note on the rate of return, but otherwise has not attempted to make up for these particular deficiencies; it lets the PCR cover to the extent it does the standard matter of project performance. A closer examination of some subjects will be appropriate at completion of the second or third project, for both of which more field data is expected to be available.

OED elected at this time to focus its analysis on other aspects of the Honduran experience which are almost never discussed in depth in supervision reports, PCRs and other Bank evaluative documents but which are important to illuminate the way large-farm livestock projects work and whom they affect.

The audit memorandum which precedes the PCR is a summary adaptation of the discussion of the special issues presented in a working paper prepared by a consultant and available in OED ("Case Study of a Livestock Development Program - Honduras"). The memorandum in effect bypasses the omissions of the PCR just mentioned and tries to answer the basic questions: who are these ranchers; how much did they need the credit; did they use it to finance technical change; how was it affected by the agrarian reform movement? What the memorandum concludes is that the world in which the daily drama of the livestock project was played out differed substantially from the expectations of the appraisal reports. To what extent the findings of the Honduran study apply to other countries has not been determined, though some of the trends discussed below have been detected in other large farmer livestock projects reviewed by OED.

The valuable assistance provided by the Government of Honduras, and by its project staff in particular, during the audit mission in August/September 1976 is gratefully acknowledged.

BASIC DATA SHEET
HONDURAS: FIRST LIVESTOCK DEVELOPMENT PROJECT (CREDIT 179-HO)

A. Amounts (US$ mln)

	Original Principal	Exchange Adjustment	Current Principal	Disbursed	Outstanding
Credit 179-HO	2.6	0.2	2.8	2.8	2.8 /a

B. Project Data

	Original Plan	Revisions	Actual
First Mention in Bank Files			21 APR 66
Government Application			06 AUG 68
Appraisal Mission			FEB 69
Negotiations			NOV 69
Board Approval			06 JAN 70
Loan Agreement			02 MAR 70
Loan Effectiveness	01 SEP 70	15 OCT 70	05 OCT 70
Percentage of Original Project Actually Completed			100%
Loan Closing	31 DEC 75		31 DEC 75
Total Costs	US$5.2 mln		US$4.8 mln
Financial Rate of Return	16-21%		n.a.
Economic Rate of Return	18%		13% /b

C. Mission Data

	Month, Year	No. of Persons	No. of Weeks	Manweeks	Date of Report
Preparation	MAR 67	1	1	1	13 APR 67
Appraisal	FEB 69	4	4	16	16 DEC 69
Subtotal				17	
Supervision I	NOV 70	1	1	1	30 NOV 70
Supervision II	MAY 71	1	1	1	18 JUN 71
Supervision III	NOV 71	1	1	1	30 NOV 71
Supervision IV	JUL 72	1	1	1	18 AUG 72
Supervision V /c	MAR 73	2	1	2	03 APR 73
Supervision VI /d	DEC 73	2	1	2	10 JAN 74
Supervision VII /d	DEC 74	1	1	1	22 JAN 75
Subtotal				9	
Completion /d	AUG 75	1	1	1	30 SEP 75

D. Follow-on Projects:
Credit 434-HO, Second Livestock Development Project, for US$6.6 million, signed 29 OCT 73 and effective 18 JAN 74; and Credit 628-HO, for US$14.0 million, signed 2 JUL 76.

/a First maturity is due in 1980.
/b See para. 35 of the Memorandum.
/c Together with three other members, this mission also appraised Credit 434-HO.
/d These missions also supervised Credit 434-HO.

Project Performance Audit Report

HONDURAS FIRST LIVESTOCK DEVELOPMENT PROJECT

(Credit 179-HO)

HIGHLIGHTS

The first project, supported by a credit of US$2.6 million, was intended to create a mechanism for providing supervised long-term credit to Honduras' medium and large-scale ranchers for pasture and herd development. The 78 ranchers involved in the four-year commitment period (1970-1973) was only 58% of the number of ranchers originally expected to be financed; but the area and number of cattle affected by the project were greater than planned and the impact on production and productivity was positive, although significantly less than intended. The institutional apparatus, which combines a new technical/promotional office in the Central Bank and private and public participating banks, has been successfully established.

The project turned out to differ in important respects from expectations. Interviews with twenty-three participating ranchers (including three from the second project) revealed substantial divergences in rancher and banker behavior from the appraisal descriptions. At least half of the ranchers were absentee, were not motivated to accept the intensive, specialized practices described in the ranch plans drawn up at the time of their applications, and had other sources of credit to finance many of the same investments - on shorter terms but without the paperwork and planning. Also, it seems that the lending program was used by some ranchers, and was seen by some agarian reform supporters, as a safeguard against land invasion and/or expropriation that these ranchers feared from the accelerating reform activities. This project audit indicates that the real world in which credit and technical decisions were made by Honduran ranchers was vastly more complex and less development oriented than implied by the appraisal report.

The following points may be of particular interest:

Pasture and herd investments and management practices tended to resist the new technical orientation (PPAM, paras. 3 and 4)

Owners were mostly absentee; many had urban investments that competed for their attention (PPAM, paras. 8-11)

Structure of livestock sector was inhospitable to appraisal's design and distorted the impact of the ranch plans (PPAM, paras. 12-15)

Many participating ranchers had alternate sources of credit; appraisal described ranchers who had none (PPAM, paras. 19-21)

Some competition existed between the livestock project and both agrarian reform and intensive farming (PPAM, paras. 22-26, PCR para. 16)

Supervision reporting did not address all relevant issues (PPAM, para. 16)

Project Performance Audit Memorandum

HONDURAS FIRST LIVESTOCK DEVELOPMENT PROJECT

(Credit 179-HO)

Introduction

1. The purpose of the special audit mission[1/] was to use the Honduras livestock project[2/] as a case study for investigation of four questions pertinent to many of the Bank's livestock projects: (1) To what extent did the project result in the adoption of productivity-increasing changes in livestock production methods by sub-borrowers? (2) Who were the project ranchers - where did they live, did they run their own ranches, did they have significant sources of income outside ranching? (3) To what extent did the credit made available to sub-borrowers represent a real addition to the credit and other capital to which they already had access - and to what extent did project credit substitute for credit and capital previously being used by sub-borrowers in their livestock operations? (4) Did the Honduran agrarian reform process have an impact on the decisions of ranchers to participate in the project, and in their choices of production techniques, and did the project in turn have an impact on agrarian reform? The main finding of the mission was that there were consistent and large divergences of sub-borrowers and their ranches from what the Bank had expected. The conclusions cannot be readily generalized to other countries, though it is clear that the conditions and trends were not peculiar to Honduras.

1/ Four weeks were spent in Honduras in August and September of 1976, three of which were taken up visiting project ranches. A week was spent in Tegucigalpa, where the project office is located, interviewing project staff, current and past government officials who had been involved with the project, and participating-bank management and technicians. Ranchers were visited with different project or participating-bank technicians - though interviews were usually not conducted in their presence. Twenty-three project ranchers were interviewed. Nineteen of the interviews took place at the ranch and all but three of the ranchers were from the first livestock project. Complete data could not be obtained on every case, so some of the comments below are made on the basis of only 20 (para. 3) or 17 (para. 20) project ranchers. Six small and medium non-project ranchers were also interviewed in the department of Atlantida.

2/ Though this evaluation covers the first livestock project most comprehensively, it touches considerably on the second project (still disbursing) and the designing of the third (approved in June 1976). There was no hiatus between commitments under the first project and the second, and the project staff looked at sub-borrowing under the second project as a continuum of the first (a clause allowing for retroactive financing was introduced in the second project to make this possible). Thus some of the problems and issues that evolved only partially during the first project were better understood and worked on during the second and the elaboration of the third. The second project, moreover, added 179 sub-borrowers to the 78 of the first project. With this total of 257 cases, it was possible to find patterns that would not be significant in the smaller group of 78, or that would not show up at all.

2. The four issues raised do not cover the whole of the project experience. They concern the sub-borrowers: the ranchers' decisions and activities. Another set of issues concern the lenders: in particular the creation and growth of the executing office in the Central Bank - the Proyecto Ganadero (PG) - and its capability to direct an increasing flow of long term livestock credit through the intermediary financial channels. That story of institution building, mostly a story of success, has not been examined in the audit memorandum (pieces of it are presented in the PCR) since earlier PPARs on Latin American livestock credit programs have explored the institutional dimension in depth[1/]; the Honduran exercise provided an opportunity to turn attention to the rancher.

Choice of Technology

3. One group of divergences related to matters of technology, showing that production methods were less intensive than the methods of the appraisal design. First, with respect to pasture, stocking rates were considerably lower than expected - averaging 1.1 animals per hectare in the fifth year of project development instead of the projected two animals per hectare. Because of the casual and sometimes inconsistent classification of lands in pasture or coming into pasture, it is impossible to get accurate measures of actual carrying capacities and, therefore, to determine whether the lower ex post stocking rates reflected lower capacities or underutilization. There are suggestions, however, that the degree and type of pasture improvement financed was less intensive than anticipated, and that the carrying capacities projected at appraisal were not achieved. The PCR data (PCR page a6) shows total hectarage of actual pasture improvement greater than the appraisal forecast (26,311 ha vs. 25,550 ha). It also shows a relatively greater increase in the area classified as "new pasture" than in the area classified as improvement of "existing pastures". The first class refers to the substitution of new pasture varieties for traditional grasses and other natural grazing land; the second class refers to the renovation and regeneration of existing species. Investments in the first class are more costly than the second. Thus the PCR data would indicate that there was more intensification than expected. But the interviews throw a different light on the process. There it becomes clear that the average level of development of the pastures in the pre-project period was lower than implied in the appraisal design, and that the degree of improvements under the project - whether of the first or second class - also fell short of design (though probably not of PG expectations). Almost one third of a sample of 20 project borrowers said they used their subproject funds to develop their ranches from a state of almost complete abandonment. The word does not imply that the land was virgin property being grazed for the first time, though that would sometimes have been the case. What it does imply is that much of the land brought under the influence of the project could only be called pasture in the most primitive of natural conditions, and improvement implies burning of bush and other clearing activities as well as establishment of some useful

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1/ See Ecuador-First and Second Livestock Development Projects, Report No. 892
Uruguay-Third and Fourth Livestock Development Projects, Report No. 1321
Colombia-Second Livestock Development Project, Report No. 1344
Mexico-Third Livestock and Agriculture Development Project, Report No. 1573

grasses, rather than the substantial upgrading of recognizable pastures. This is no surprise: there was hardly any improved pasture in Honduras to begin with. Project investments clearly resulted in an improvement, but the starting and end points were lower than appraisal had suggested and the degree of improvement was less than anticipated. Sub-borrowers simply had less ambitious motives for taking credit.

4. Second, with respect to animal management, ranchers often reported that they sold their steers before they reached market weights, that they often sold reproducing stock to generate operating capital, that they milked their beef cattle and intended to continue to do so,1/ that they raised their dairy calves to maturity instead of selling them at weaning, and that they did not adopt seasonal breeding, or discontinued it. In each respect the rancher's action departed significantly from the management methods implied in the first appraisal report and brought out more explicitly in the second. In addition, expenditures on animal health seemed to be much lower than recommended levels. A sample of expenditures on salt and minerals showed that two thirds of the sampled borrowers were spending an average of 32% of the recommended levels on these items. Similarly, expenditures on veterinary products average only 36% of recommended levels for over half of the sampled ranchers.

5. Third, a tendency has developed for project funds to be shifted to the purchase of reproducing animals. With 60% of the second project credit funds committed, breeding-stock purchases have accounted for almost twice their expected share of ranch-development costs (i.e. excluding slaughterhouse credits) - 51% vs. 26%. An arithmetic error, behind the table on page A6 of the original PCR but corrected in this PPAR, implied a 70% increase over appraisal in the number of breeding stock purchased under the first project as well. The corrected figures now show a slight decrease (6,781 vs. 6,805), but there is reason2/to believe the actual figures may understate the number of breeding stock ultimately purchased, and that the tendency to shift to animal purchase began during the period of the first project. Moreover, one of the top project officers asserted that the shift was a fact, and partly explained it by the fall in the price of heifers.

1/ The appraisal models show milking continuing on non-dairy farms only up through the fifth year. Ranchers interviewed in year 4 and 5 had no intention of stopping milking. Ranchers interviewed in year 6 had not stopped and had no intention to. The relative improvement of milk prices vis-a-vis beef prices could explain the persistence of milking activities, but it was clear from the interviews that the behavior mainly reflected the influence of cultural rather than price phenomena.

2/ "Actual" figures often are aggregated from loan applications and ranch plans, and would understate the true numbers purchased if ranchers subsequently responded to a decline in heifer prices by buying more animals than they had proposed to buy. Changes of this sort were not secret, but could be missed in the aggregation of data for report requirements. Moreover it is known that the PG had to accede to rancher requests to include more cattle in order to make the loan.

6. All these findings suggest that increases in the beef and dairy production of project ranches were less a result of the animal productivity improvements expected to result from the project than from extension of a modest pasture and paddock establishment package to primitive grazing lands and of the expansion of the herd through purchase. The Bank loan, meant to give ranchers the financial backing necessary to give up the old husbandry practices and wait until the new practices yielded their return, did not play this facilitating role to the extent hoped for.

Type of Rancher

7. Another group of divergences from Bank expectations was related to the size of the subloans and the type of borrower. Ranch size and loan size turned out to be significantly larger than expected under both first and second projects. Under the first project, for example, average cost of investments per ranch was 79% greater than expected. About half of the ranches were larger than 500 hectares, while the ranches of the principal models in the appraisal report were 150 and 400 hectares. The average ranch size has fallen in the second project - the PG reports only 22% are more than 500 hectares - but it is still somewhat above original expectations. Though the PCR attributes the greater average costs of ranch development to the larger-than-expected ranches, it turns out that loan size was markedly larger than anticipated even for ranches that were roughly the size of the models (a discrepancy that cannot all be explained by inflation). For dairy/fattening ranches in the range of the model size (150 hectares), average investment costs were 130% greater than the model. For beef ranches close to the model size (400 hectares), costs were 27% greater.

8. Also in contrast to the Bank's assumptions at appraisal,[1/] a large majority of project ranchers (73%) did not live on the ranch; half of them spent less than half-time on the ranch; and about half had significant incomes outside ranching. A large minority had urban investments and/or full-time urban employment, and almost half of the borrowers lived in the country's three principal cities - Tegucigalpa, San Pedro Sula, or La Ceiba.

9. These divergences from the appraisal design can be explained in various ways. The more extensive production methods frequently went along with the absentee ranching. Yet most of the productivity-increasing practices recommended by the project were management-intensive. It would be difficult for absent owners to supervise them. At the same time, the competent, well-paid ranch managers projected at appraisal were not common on project ranches. A sample of operating costs for project ranches showed foremen receiving only about 60% of the annual salaries stipulated in the design.

10. For sub-borrowers whose urban investment activities took considerable time, the opportunity cost of managing the ranch more closely was high. In addition, the ranch management decisions of these other-activity sub-borrowers seemed to be guided by expectations and time horizons that

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1/ The characteristics of the participating rancher were not described in the appraisal report, or in the lending agreements. Nevertheless, the preparation report and Bank files make it clear that residency was thought to be important and, at least up to appraisal, had been included as a condition of on-lending.

were quite different from the Bank's conception of a project rancher almost completely dependent on his ranch for income.

11. To a certain extent, the divergence from the appraisal design was also caused by the focus of the project on the largest ranchers. Though appraisal and other documents justified this choice on the grounds that the largest were the most efficient, the evaluation suggests that the largest were actually the most extensive and least technically oriented of the project ranches. In addition, the proportion of total property on project ranches in improved pasture decreases consistently as ranch size increases. The same phenomenon was found for the value of investment per hectare of land in pasture on project ranches - i.e., a consistent decrease as ranch size increases. Project technicians reported as well that the larger ranchers were the most extensive. Since larger ranches were more characteristic of the marginal zones, one could have anticipated an inverse correlation between ranch size and intensive practices. However, even within the same zones the inverse correlation persists. Clearly, this outcome was heightened by the fact that project ranches turned out to be even larger than the Bank expected.

Other Divergences from the Appraisal Design

12. Other reasons for the divergence from the appraisal report are directly attributable to the design of the ranch development plan. Mainly, the original plans were designed to accommodate fairly intensive investment and low or negative returns in the early years, followed by substantial returns in the later years. The income shortfall in the early years was to be made up with short-term credit for the purchase of feeder steers for fattening, the sale of which would provide operating cash. For various reasons, however, there is not much economic incentive to fatten steers in Honduras. The practice of purchasing feeder steers has never been widespread and did not increase much even with the encouragement of the project. As a result, the project's operating-capital credit was barely used. Only 27% of the borrowers availed themselves of this credit; only 40% of the short-term credit projected at appraisal was actually committed. Of this amount, 46% was never disbursed. Thus the value of operating capital credit actually used was 21% of that expected at appraisal.

13. The shortfall in the use of short-term credit for feeder steers had serious implications for project ranches. In the appraisal design, the sale of feeder steers was projected to account for roughly one half of the operating income of project ranchers. If feeder steer sales were not a feasible alternative for many rancher-applicants, as noted above, then they would have to obtain their operating cash from other activities. The results were that: (i) borrowers with sources of income outside livestock were often the only applicants who were able to withstand the lean early years of investment - as was pointed out by the project office in recommending several applicants for financing. This type of borrower, however, was not necessarily the most likely to undertake intensive management techniques; and (ii) borrowers obtained operating cash by engaging in just those practices that the project was supposed to eliminate - mainly the milking of beef cattle, the selling of steers before they reached market weight, and the selling of reproducing stock. Thus, though the Bank's appraisal design was intended for a rancher who would devote full time to

the ranch and live mainly off its income, its financial rigor and its failure to incorporate certain features of the Honduran livestock sector often resulted in the encouragement of just the opposite type of behavior.

14. Implicit in the livestock project was the assumption that specialized beef and dairy production were more profitable than the dual purpose system that prevailed in Honduras. Thus the project recommended practices that required a shift to the specialized system - e.g., the cessation of milking of beef cattle, the sale of calves on dairy farms at weaning (this feature was emphasized more in the second and third projects than in the first), the transition from year-round to seasonal breeding. Similarly, the project assumed that intensive management was more profitable than extensive management. Yet project ranchers consistently demonstrated a preference for diversifying rather than specializing their activities - combining beef and dairy, livestock and agriculture, livestock and urban investments.

15. The persistence of extensive, unspecialized production methods suggests that they may have been more profitable in the Honduran context than the production mode promoted by the Bank project. Prices paid by Honduran packers are the lowest in Central America - 32% less than the average for the other beef-exporting countries of the region. Correspondingly, Honduran slaughter weights are also the lowest - 29% less than the average for the other countries. No price premium is paid for quality, and premiums for weight increments are said to be insufficient. The difference in price paid per pound for the increment from a 700-800/lb. steer to an 800-900 lb. steer has averaged only 3.2% over the last several years, and was actually somewhat higher in the second half of the 1960s. The monopsony power of the meat-packing industry seems to have contributed to this situation. Although ranchers can often obtain better prices by exporting their animals on the hoof to Guatemala and Nicaragua, this practice was made illegal some years ago as a result of pressures on the government by the owners and trade unions of the seven export meat packers.

16. Another contributing cause of the shift from appraisal expectations was the pressure exerted on the project office to keep up the projected rate of sub-loan commitments. Supervision reports and other project implementation documents concerned themselves mainly with the rate of commitment of project funds, apparently without recognizing that urgency gave priority to selection criteria which might promote subprojects and subborrowers quite divergent from the original plan. The participating banks also turned out to be reluctant to lend to borrowers without urban real estate and non-ranch income - a reluctance that was caused in part by the agrarian reform (see para. 22.).

17. This discussion refers only to the divergence between what ranchers did and what the set of appraisal assumptions implied they would do. It

does not imply a divergence between what ranchers did and what, from their view or that of the PG, made sense for them to do in the years of project implementation, when operational decisions had to be made. Some shift toward specialization has been reported, and the PG properly takes credit for having promoted those first steps. The PG notes, and OED agrees, that the series of dry spells that were recorded since 1972, the rise in the ratio of milk prices to beef prices starting in early 1974, the fact that the selection of participating ranches was ultimately determined by the participating banks and not the PG, and other extenuating circumstances all make the behavior seem reasonable, and the slow but measurable progress toward appraisal objectives more impressive. The PG also notes that the processes of technification and specialization have both been started and can be expected to continue, and OED has no reason to dispute that assertion.

18. However, the project actually implemented, though of benefit to Honduras, turned out to be significantly different in terms of its quantity and time achievements from that originally proposed, for reasons which in retrospect reflect misspecification of rancher and banker behavior in the project design.

Demand for Credit

19. A considerable amount of investment credit for livestock was already available to ranchers through the banking system, though the appraisal report said that "the larger and more efficient ranchers (had) received little (investment) credit". In 1970, the year before project funds started disbursing, new medium-term loans of the banking system for investment in livestock amounted to more than five times the value of project sub-loan commitments in 1972, the year when commitments were greatest. This investment credit for livestock was granted for three-to-seven-year periods, and accounted for about 64% of total livestock credit in the banking system; the rest was for operating capital. Project credit never amounted to a significant proportion of total investment credit for livestock; annual project commitments in the 1971-74 period ranged from between 5% to 10% of total new loans for livestock investment credit.1/ What can be said is that project credit extended the average term of the loans, and introduced a whole new credit concept in Honduras, including the preparation of ranch development plans, the financing of the full development of the ranches, and the supervision of the actual investment process.

20. It was also stated at appraisal that the Bank loan would represent the first time that a government-sponsored program in Honduras would make long-term investment credit available to large ranchers on terms and conditions appropriate for the development of their ranches. The state development

1/ The figures for total livestock investment credits can be misleading. Some of it would have been diverted to other purposes, and is better labeled credit to people who owned livestock.

bank (BNF), it was said, provided substantial amounts of livestock credit but restricted its application to small and medium farmers. Without access to BNF credit and without long-term credit facilities at private banks, it was said, large ranchers were being left out. The Bank loan was meant to fill this alleged gap. It turns out, however, that many project ranchers had ample access to BNF credit, both before and during their participation in the Bank project. Out of a sample of 17 ranchers interviewed, 15 or 88% reported having had substantial BNF credits for livestock. Since the BNF accounts for 34% of total livestock investment credit in the banking system, this finding suggests that large ranchers had more than a proportionate share of BNF credit. Again, the point should be emphasized that the terms and packaging of the project credit offered the critical new feature.

21. Nevertheless, with livestock credit so available before the Bank project, many ranchers had to be persuaded to switch from their other lines of credit which they were used to taking in smaller amounts and without the supervision required on Bank projects. This availability of other livestock investment credit, and the resulting reluctance of some ranchers to abandon the old type of credit for the new, had the effect of limiting the number of applications. There were more of these anyway than the project could have handled (215 were presented in the first project period), but the collateral requirements of the participating banks eliminated well over half (78 were approved; some of those rejected were picked up by other banks in subsequent years). Thus the two factors combined to produce a relative scarcity of acceptable applicants. The project office, pressured to keep loan commitments moving apace in the face of rancher reluctance, was not in a position to take direct action to increase the tempo of lending, since that depended on decisions of the participating banks. Nevertheless, there was much consultation between the PG and the banks, and the PG did not resist the tendency of the bankers to fall back on larger loans and some sub-borrowers who were not especially capable of or interested in introducing productivity improvements.1/

Relation to Agrarian Reform

22. The agrarian reform taking place in Honduras during the implementation of the livestock program had two implications for the program, in addition to the reluctance of participating banks cited above. First, the threat of invasion and expropriation was an important element in the decision of many sub-borrowers - in the months before and after the decisive decree No. 8 in December 1972 - to develop their ranches, or to develop them in the ways that they did. The new law exempted properties that were already being worked, and, particularly pertinent to potential sub-borrowers, properties

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1/ The project directors have also pointed out that many smaller ranchers were excluded either because their tenure titles were not clarified or because the BNF already held first mortgages on the property, precluding the use of title to secure a project loan as long as BNF stayed outside the project.(it entered in 1975).

that had obtained financing to undertake farm development.[1/] Pasture was the quickest way to get considerable amounts of land under cultivation (as opposed to crops). This point was made by various project ranchers and technicians. To the extent that such motivations were important, they help explain why project ranches showed less intensive and specialized production than had been planned.

23. The second implication of the agrarian reform for the project was that the project and the Bank came to be identified, in some Government circles, with the forces of rural inequity in the countryside - as supporting the class that was the reform's most organized and vocal adversary. The project, it was said, was being used by landowners to evade expropriation. To the extent the reform forced the landowners to make a significant and sustained improvement to their property, the effects for Honduras were welcome and the action had the effect of compliance whatever the motive. But the desire to avoid the effects of the law was also present. It shows up in those cases where a minimum amount of infrastructure was financed, enough to meet the law but not the spirit of the farm plan. It shows up on those occasions when PG officers supported the cattleman's association in asking for better treatment of expropriable cattlemen. The project director, who in the past had been executive secretary of the association, was cooperating with the committee[2/] set up by Government to recommend changes to the regulations for the December 1972 legislation. These amendments, accepted in April 1973, substantially broadened the class of exceptions. The project director's role was clearly in the interests of the project, and OED does not consider these activities reprehensible. However, wrong impressions about the Bank's interests in land reform had been created.

24. At the time of the second appraisal mission in February-March 1973 the direction to be taken by the agrarian movement promoted by the change in government in 1972 had begun to clarify and it was recognized by the mission that a collision between the objectives of reform and rancher community was possible. Within the reform group in government extensive cattle ranching had been defined as a major target of the reform process — particularly in

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1/ The exemption that the new law provided to project borrowers had its greatest impact on the second project portfolio. Nevertheless, since 47% of the sub-loans of the first project had been committed before October 1972, and 87% before January 1973, the rapid pick-up in the rate of lending in the last quarter of 1972 must be partly related to the new legislation. Throughout 1971 and 1972 ranchers were reacting to the considerable threat of reform and land invasion that started to accelerate in 1971.

2/ The members of the committee were the Ministers of Finance and Communication, the President of the Central Bank, the Director of INA, the Secretary of the Cattlemen's Association (FENAGH) and two legal advisers. The committee called on various persons, among them the project director, representing different interests of the agricultural sector.

the more populous areas of the country where project ranchers were located. The appraisal mission was aware of the reform objectives — it interviewed the heads of the government's agrarian reform institute as well as of campesino groups. In fact, the appraisal report described the reform as "the single most important issue facing Honduras". The design of the project followed the intention of the law and was intended to avoid a conflict with objectives of the land reform by limiting the development of large, extensive ranching operations to marginal zones of the country that attracted little campesino agitation and by intensifying dairy and feeding operations that could meet the spirit of the reform legislation in the more fertile areas of the country. What was missing in the appraisal analysis was, first, an awareness that the first project was falling short of a similar set of objectives, exposing it to the criticism of the reformers, and, second, that any finance for ranchers could be interpreted as Bank support for the cattlemen's position. Subsequent supervision reports mentioned the impact of reform on project ranches, but not the impact of the project on reform.

25. Honduran critics also note that the first two livestock projects promoted livestock development in the most fertile and flat lands of the country, often the lands most suited to intensive agriculture. The land reform legislation did not explicitly call for an end to livestock activities on these fertile lands. The 1972 decree insisted only that such ranching property be committed to pasture. The 1975 decree introduced lower limits on carrying capacities, and these were set high enough to limit livestock enterprise to dairy and other intensive operations. Since that shift has not occurred at the desired rate, the project gives the appearance in some areas of competing with the agricultural thrust of the land reform objectives, although it should be noted that the reform and the policy commenced only in late 1972, well after approval of the first livestock loan in 1969.

26. Rural population densities were also higher in the areas of concentrated project development, as were organized peasant demands for land. There was a strong statistical association between the counties where project ranches were located and those counties where peasant groups had successfully claimed land under agrarian reform legislation.

27. Concern about livestock and lands apt for agriculture was not exclusive to Honduras. In the early 1970s, Bank papers on livestock lending stated that livestock projects should not be located in areas suited to intensive agriculture and/or where rural population was concentrated. The intention of the second appraisal mission — to support extensive type improvements only in the marginal lands — was not reflected in the participant banks' lending policies, at least until 1975. The ranches of the second project, like the first, came to be located in those areas of Honduras that were most suited for intensive agriculture.

28. Clearly the land issues are contentious and subject to interpretations. The preceding views to which the OED mission was exposed in Honduras indicate tension between the objectives of the first and second livestock projects and of land reform in the middle 1970s. The objectives of part of the reform group called for the reduction, not the improvement, of the extensive ranching sector in regions where peasant pressure is high and the land is suitable to intensive cropping. Project lending of the sort that was most characteristic in these regions was, from this perspective, unwelcome. The present view of Bank staff and the PG is that the project has nevertheless played a constructive role in helping some ranchers improve their properties to the point where they contribute to national output. If that improvement process has been slower than expected, perhaps the original expectations were too ambitious. Recent experience does not undermine the case for this type of credit operation, and, with time, the results will support the objective of efficient land use to which all groups subscribe.

Conclusions

29. The first livestock development project was instrumental in increasing beef production on project farms (PCR, page a4). On the whole it must be viewed as a worthwhile effort, even though production, as well as productivity improvements, fell short of appraisal estimates. However, production increases were obtained in a way that diverged in important respects from the way envisaged at appraisal.

30. The answers to the four questions posed at the beginning of this memorandum are highly intertwined. The rate of adoption of productivity-increasing methods of livestock operation was seen to be influenced by who the sub-borrowers were, whether they already had access to livestock credit before the project, and how their investment decisions were affected by the agrarian reform. In general, the divergence from the appraisal design toward more extensive, traditional and unspecialized production was caused by two independent factors: first, the borrower selection process and the type of borrower selected; and second, the fact that the specialized intensive design of the project may have been actually less profitable than traditional practices.

31. The incidence of divergence from the appraisal design was high: it would include at least half the borrowers under the first and second livestock projects. For some particular divergences - such as residence off the ranch, low stocking rates, and milking of beef cattle - the divergent population would represent about 75% of the sub-borrowers. However, between 25 and 50% of the project ranches did follow the path the project expected them to and there were many project ranches where significant improvements in productivity were achieved.

32. Could the project have reached more of the kinds of ranchers it hoped to reach - namely, the one-quarter to one-half of the project ranchers who were like the kind of producers originally aimed at by the Bank? The tendency of private participating banks to lend to large, prosperous farmers and ranchers that have urban properties and other sources of income, and give low priority to medium and small farmers, has been observed in several Bank-financed projects involving on-lending operations without maximum farm size restrictions. To forestall this tendency in more recent projects the Bank has arranged for improved security loans, chattel mortgaging, state guarantee, land registration, collective guarantee, etc.. Ceilings on either farm size or loan size have also been incorporated in the newer loans and credits. As for the many medium-sized ranchers not able or afraid to take loans of the size and amortization period typical of the Bank project,1/ a slower, staggered development plan for their ranches, financed by a series of smaller loans, on shorter terms, might have been more acceptable than the still common approach envisaging full-scale ranch development financed out of a single large loan with a long amortization. (The completion of the series under the framework of the comprehensive ranch plan would be agreed to in advance.) Although large sub-loans and long amortization periods have generally been considered a contribution to economies where this type of credit is scarce, the findings of the audit mission suggest that this feature may have been counterproductive to the productivity goals for some groups of potential applicants in Honduras.

33. These observations suggest that two basic project design issues - the kind of livestock operation that is most profitable under prevailing circumstances, and whether in some regions livestock itself makes sense when compared to other agricultural alternatives - were not well enough explored before or during appraisal of the first two Honduran livestock projects. As discussed above, actual ranch developments show consistent divergences from the ranch development models in the project appraisal report. The third project, with its dual purpose model and its inclusion of some credit for agriculture and agrarian reform beneficiaries, shifts the lending program further in the right direction.

1/ This reluctance, noted by the evaluation mission, seems to have existed despite an increase in legal interest ceilings during disbursement of the first project, which temporarily left project interest rates two percentage points below other lending rates (9% vs. 11%). To these ranchers, the small interest advantage of project credit seemed overshadowed by the risks they perceived in the taking of large amount of credit for long periods.

34. The question has been raised whether actual achievements can be legitimately compared with appraisal models, since ranch models cannot be expected to be blueprints, forecasts, or binding on project managers and ranchers. Actual ranch developments rarely match appraisal models: market conditions, prices, techniques and other factors continue to evolve after appraisal; and variations around averages may hinder comparisons. The answer offered here is that if ranch models are to be a credible basis for analyzing the technical, economic and financial merits of projects, they must broadly approximate expected rancher behavior. In this case, actual behavior on at least half the participating farms diverged significantly from the premises of the project - that ranchers who took the loans would be resident on the farms, that they would be intent on technical improvement, that they would specialize their enterprises, and that they had no substitute source of finance. In OED's view the models will improve if they can be made to more closely reflect actual behavior; if non-residency is a fact of life the project should be designed to avoid its pernicious effects.

Note on the Rate of Return[1/]

35. The appraisal report on the first livestock project estimated an economic rate of return of 18%. The PCR discusses the meager evidence available on physical impact and shows beef and milk production falling behind the benefit build-up expected in the first five years (60-70% of the appraisal level in year 5). The PCR does not re-estimate the rate of return but concludes that "the benefits projected at appraisal were fully achieved" (PCR para. 19). The technical coefficients have been discussed in qualitative terms by an OED mission during interviews with the ranchers, and their comments suggest that productivity improvements as well as production have fallen short of appraisal estimates and that the rates of return expected at appraisal cannot be sustained. With that general finding before us, and in view of the PCR data on production levels, we estimate very approximately that a rate of return on the Honduran project would fall in the range of 10-15%, giving a best point estimate of 13%. The pattern of ranch investments and management observed in this project is similar to the extensive operations described in an OED evaluation of another large farmer livestock project in Latin America for which new calculations were possible (see the PPAR on the Mexico Third Livestock and Agriculture Development Project, Report No. 1573). The shift from intensive to extensive operations was shown to result there in a fall of the economic rate of return of beef cattle operations from an appraisal range around 25% to a range around 13%. OED suspects that the last estimate is broadly applicable to large ranchers who invested in extensive management operations in Mexico and Central America during the period of rising beef prices in the early 1970s.

1/ The PCR, issued in September 1975, did not include a new estimate of the rate of return. The discussion in para. 35 has been jointly formulated by the Regional and OED staff on the basis of the information available to the Bank, and the assumptions which follow from that information about technical changes and their impact on economic returns.

HONDURAS - FIRST LIVESTOCK DEVELOPMENT PROJECT

(Credit 179-HO)

PROJECT COMPLETION REPORT[1/]

A. Introduction

1. The Project financed partially with Credit 179-HO (US$2.6 million) was the first credit made by the Bank group to Honduras in the agricultural sector. It was also the country's first project in the agriculture-livestock sector to provide long-term private commercial bank loans to ranchers on terms and conditions appropriate for ranch development. The participating banks (PBs) made sizeable contributions to the Project in the form of capital for on-ranch investments and operating capital, plus providing technical and administrative services. The Project aimed at the improvement of the beef cattle industry, with particular emphasis on production for export. It was conceived as a country-wide operation, but with most of the activity concentrated in the Atlantic Coast, which had the greatest concentration of suitable ranches and most favorable resources for development.

2. The Borrower was the Republic of Honduras, represented by the Ministry of Economy and Finance and the program was carried out by the Central Bank (CB) which channeled funds to ranchers through six participating commercial banks. In accordance with IDA agreements, CB established a Livestock Project Account to administer and disburse the proceeds of the Credit. Project operations were conducted under the direction and supervision of a Project Commission, established by the Government, and a Project Director (PD), appointed by the Commission, with IDA's approval. Technical staff from the PBs were seconded to work under the Project Director. Sub-loans to ranchers under the Project lending program were made by PBs only after the PD had approved the respective ranch development plans.

B. Project Objectives and Results

Objectives

3. The principal objectives of the Project were to assist Honduras in pursuing its national agriculture policy which calls for raising the country's extremely low level of beef consumption (3.7 kg per capita, 1967) and help it diversify its agriculture, especially in production for export. The Project

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1/ Issued September 30, 1975. Corrections on pages a3 and a6 made on August 17, 1977.

Ranches under the Project	Situation Before Development: Expected at Appraisal No.	Av. Size (ha)	Total Area (ha)	Actual No.	Av. Size (ha)	Total Area (ha)
1. Dairy steer/fattening	50	150	7,500	45	352	15,840
2. Beef breeding/fattening	75	400	30,000	27	1,517	40,959
3. Beef breeding	10	1,500	15,000	6	1,450	8,700
4. Total	135	389	52,500	78	840	65,499
5. Area in pasture (ha)		381	51,450		328	56,508

A survey of 23 ranches that had the most reliable information showed that average yearly beef production per farm was increased 100%, compared with production before the Project, and milk was about 43% higher, as shown in the table below:

	Survey of 23 ranches				Appraisal Estimate 135 ranches			
	Before the Project	Actual at Time of Survey	Increase	%	Before Development	5 year of Development	Increase	%
Beef animals sold (No.)	36	73	37	103	54	152	98	181
Lwt (kg) 1/	12,600	25,550	12,950	103	18,900	53,200	34,300	181
Milk (lts)	82,670	118,370	35,700	43	9,600	15,900	6,300	65
Effective calving rate (%)	57	68	11	19	51	70	19	37
Total Cattle (No.)	329	602	273	83	393	628	235	60
Animal Units (AU) 2/	246	376	130	53	315	479	164	52

1/ Average Lwt/head 350 kg.

2/ AU: Cattle over 8 months old.

Beef production, which included purchased fattening steers in the ranches surveyed, was lower than expected at appraisal because a two-year drought had made forage scarce for fattening. The small amount of working capital utilized (para 10) is also reflected in the lower production figures achieved. The increase in the effective calving rate was not as spectacular as was expected at appraisal, but the estimate was actually too optimistic. Differences in beef and milk production may also be partially due to the difference between the types of ranches actually financed and the type expected at appraisal, as shown below:

Ranch Type	Appraisal		Actual		Survey Results	
	No.	%	No.	%	No.	%
Dairy steer fattening	50	37	45	58	10	43
Beef breeding/fattening	75	56	27	35	8	35
Beef breeding	10	7	6	7	5	22
Total	135	100	78	100	23	100

On-farm Investment and Lending Program

7. As forecast, most of the ranches participating in the Project were located in the Atlantic Zone in the Sula Valley and La Ceiba area:

Zone	No. of Loans	%	Amount US$'000	%
Atlantic (North)	46	58	1,777	54
Central	24	31	1,062	32
Pacific (South)	9	11	462	14
Total	79	100	3,301	100

On-farm investments by categories of investment were very much as expected except in construction and machinery where actual investments were 284% and 158% respectively of expected values, and breeding cattle purchases were 23% below expectations. These differences might be a result of the increase in machinery and construction costs and the fact that more cattle handling facilities and housing were financed. In the case of cattle purchases, even though more animals were acquired than planned, the price of heifers was lower than expected and purchase of frozen semen partially replaced purchase of bulls. The following table shows that new pastures were established at triple the rate estimated at appraisal, while improvement of existing pastures was 24% below expectations. This data should be interpreted carefully, however, since technicians differed in their opinions as to what constituted a new or an improved pasture in on-ranch investment plans.

Project Expenditure	Appraisal Estimate No.	Appraisal Estimate US$'000	Appraisal Estimate %	Actual No.	Actual US$'000	Actual %
Pasture Improvement	25,550	806.25	20	26,311	1,013.7	24
New Pasture (ha)	3,250	-	-	9,401	521.1	-
Existing Pasture (ha)	22,250	-	-	16,910	492.6	-
Fencing	2,575	328.75	8	2,352.5	334.6	8
New (km)	775	-	-	1,400.5	260.6	-
Repair (km)	1,800	-	-	952	74.0	-
Water Supply (units)	1,155	476.25	12	606.5	284.5	7
Constructions	416	186.90	5	1,413	531.1	13
Machinery	352	313.75	8	204	494.2	12
Breeding Stock (Heads)	6,805	1,913.10	47	6,781	1,483.9	36
Cows/Heifers	5,750	-	-	6,171	936.8	-
Bulls	1,055	-	-	610	528.3	-
Frozen semen	-	-	-	3,820	18.8	-
Total	-	4,025.0	100	-	4,160.8	100

8. There was no limit in regard to farm size or amount of sub-loan per farmer under the Project, and distribution and amounts of loans were as follows:

Range of Sub-loans (US$)	Sub-Loans No.	Sub-Loans %	Amount US$'000	Amount %
9,000 - 12,500	1	1	10.3	-
12,501 - 25,000	21	27	407.9	12
25,001 - 37,500	19	24	579.0	18
37,501 - 50,000	17	22	719.7	22
50,001 - 75,000	11	14	642.4	19
75,001 - 100,000	10	12	942.1	29
Total	79	100	3,301.4	100
Average			41.8	

Most of the loans, 74%, were under US$50,000, but 48% of the funds went to sub-loans over US$50,000. Average sub-loan size was about US$42,000, which was considerable higher than the appraisal forecast of US$27,000, even when allowance is made for input price increases from 1969 to 1973, about 12%.

Financing and Disbursements

9. Implementation of the Project in regard to number of ranch plans initiated each year followed closely the pattern anticipated at appraisal, but ranch investments were made in four years instead of five as planned.

Ranch Plans Initiated	1970	1971	1972	1973	1974	Total
Appraisal Estimate	40	65	30	-	-	135
Actual	25	44	10	-		79
Total Ranch Investments (US$'000)						
Appraisal Estimate	758.3	1,450	1,168.6	504.1	144.0	4,025
Actual	485.6	1,412.0	1,832.0	431.4	-	4,161

10. Total Project cost was about 9% lower than planned because of the little use made of working capital (para. 6); thus, total ranch development cost was about US$0.5 million less than expected. Technical services were about 24% higher, partially because of the two assistants CB assigned to help the Project Director (para. 17). A summary is given below:

	Appraisal Estimate	Actual
	US$'000	
Total capital development	4,025	4,161
Working capital (fattening steers)	1,030	378
Total on-ranch development	5,055	4,539
Technical services	176	218
Total Project cost	5,231	4,757

11. Project funds (US$3.3 million) were fully committed in April 1973 and totally disbursed in January 1975, almost a year before the closing date. To cope with sub-loan demand, it was necessary in June 1974 to reallocate funds to Category I, long-term loans, from Category II, Technical Services. Ranchers contributed about 20% of on-ranch investment and PBs contributed 25% of sub-loans out of their own funds, while IDA reimbursed the remaining 75% through CB. The following table shows how Project funds were disbursed.

	Original Amount	Transfer	Total
	US$'000		
Long-term Loans			
IDA Credit	2,450.0	+ 29.6	2,479.6
Participating Banks	816.0	9.9	825.9
Total	3,266.0	39.5	3,305.5
Technical Services			
IDA Credit	140.0	- 29.6	110.4
Central Bank	36.0	+ 71.1	107.1
Total	176.0	+ 41.5	217.5
Total	-	-	3,523.0

12. Three PBs, known as the El Ahorro Group (El Ahorro Hondureño Bank, Occidente Bank and Bancahsa), were the most active in the lending program, accounting for 62% of the total, while two larger banks, the Atlántida (associated with Chase Manhattan) and the Honduras Bank (associated with First National), participated to a lesser extent. The following table provides specifics:

Bank	Number of Sub-loans	Committed (US$'000)
Atlántida	14	463.7
Ahorro Hondureño	25	1,146.7
BANCAHSA	18	608.2
Occidente	7	281.4
Financiera	6	181.5
Honduras	9	619.9
	79	3,301.4

13. Terms and interest rates for the Credit and sub-loans were as follows:

	Number of Years Grace	Total Term	Interest %
IDA to Government	10	50	0.75
Government to CB	10	50	4.5
CB to PBs	3-5	8-12	5
PBs to ranchers	3-5	8-12	9

The Government of Honduras donated the funds withdrawn from Category II (US$140,000) to CB to pay for technical assistance services.

Organization and Management

14. The Government of Honduras, by Decree No. 865 of December 18, 1969, established the Project Commission, whose members were: the Minister of Finance and Commerce (President), the Minister of Natural Resources, the President of the Central Bank, the General Secretary of the National Planning Board, the President of the National Development Bank, three representatives of the Participating Banks, a representative of the Cattlemen's Association, and a representative of the National Agrarian Institute (INA). The Project Director acted as Secretary of the Commission. This body met regularly every other month without major problem, although, in some instances, the regular members were represented by authorized alternates. The Commission, however, did not make many significant contribution to the implementation or coordination of the Project.

15. The Project Director, an expatriate, was employed by IDA, seconded to BC and approved by the Commission. He took office on October 26, 1969 after a two weeks briefing in the Bank at Washington. Then, in November 1969, a mission from the Bank, including the Project Director in Ecuador, assisted him in organizational matters. By December 21, 1969, when the Commission held its first meeting, seven PBs had already signed the Project Administration Agreement and several sub-loans applications were ready for approval. It was very difficult to get this first project started because CB and PB officers did not know much about it (legal documents and the appraisal report had to be translated into Spanish) and because, after the June 1969 war against El Salvador, the economical and political situation of the country absorbed most of the Government's (the Commission) attention.

16. Deterioration of the Honduran economy after emigration of the Salvadoran labor force and retirement of Honduras from the Central American Common Market (July 1969) was aggravated in 1971 by uncertainties caused by the campaign to elect a president (1971), the first election to be held since 1961. Agrarian unrest, land invasion by campesinos, and incapacity of the Government to solve land tenure problems made an unfavorable climate for Project execution to the extent that PBs suspended lending operations on several occasions, fearing that their investments would be lost if ranchers' lands were invaded by campesinos or expropriated by INA. This problem was partially solved when CB provided (October 1972) a guarantee to cover loans made by PBs.

17. Although IDA did not require it, CB appointed two assistants to the Project Director, who proved to be very useful in Project execution. One of them became Project Director when the post was left vacant in July 1972. Six PBs were active in the lending program and they seconded livestock technicians to the Project Director. These technicians were trained by the Project Director on the job. Field trips to the neighboring countries of the US and Mexico were also made and a special short course was held, with the cooperation of the Interamerican Institute for Agriculture Science (OAS). Most of these men became efficient and hard-working professionals, motivated by a higher salary, more responsibilities, and better working facilities than they had had before. Nevertheless, PBs did not have an adequate salary increase policy and turn-over of these technicians became a problem.

18. Administrative problems arose when the program was first implemented, but they were solved when the President of CB gave full support to the Project and the technical unit offices were moved out of the CB building. Only transportation for the PD remained a problem until a late stage of Project execution when a vehicle was finally assigned to him, as called for in the appointment contract. In the meantime, he used his own car for Project matters.

C. Conclusions

19. Project implementation and execution were highly satisfactory, and, although difficult to quantify, the benefits projected at appraisal were fully achieved.

20. A Second Project is under execution to continue the lending program.

MAP

HONDURAS: LOCATION OF RANCHER INTERVIEWS

OED AUDIT, August/September 1976