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DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
Washington, D.C. 20523

Proposal and Recommendations For the Review of the Development Loan Committee

BOLIVIA - BASIC FOODS PRODUCTION (052)

(without annexes)

AID-DLC/P-2065

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DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

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December 20, 1974

MEMORANDUM FOR THE DEVELOPMENT LOAN COMMITTEE

SUBJECT: Bolivia - Basic Foods Production

Attached for your review are recommendations for authorization of a loan to the Government of Bolivia in an amount not to exceed Eight Million ($8,000,000)Dollars, to assist in financing the United States dollar and local currency costs of making credit available through the Bolivian Banking System for the production and marketing of agricultural products.

This loan proposal is scheduled for consideration by the Development Loan Staff Committee on Friday, December 27, 1974. Please note your concurrence or objection is requested at the meeting. If you are a voting member, a poll sheet has been enclosed for your response.

Development Loan Committee
Office of Development
Program Review

Attachments:
Summary and Recommendations
Project Analysis
ANNEX I - Exhibit 4
(Balance of Annexes will be the subject of a separate printing)

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BASIC FOODS PRODUCTION

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PART ONE: SUMMARY AND RECOMMENDATIONS

1. BORROWER:

The Government of Bolivia (GOB) will be the Borrower. The executing Agency will be the Banco Central de Bolivia (Central Bank). Private and public banks of Bolivia making direct loans to small-size agricultural producers and to agricultural processors or storers will be eligible as intermediate credit institutions (ICI's), and will have access to the Loan and GOB contribution proceeds through the Agricultural Rediscount Fund (FRA) established in the Central Bank.

2. AMOUNT AND TERMS OF THE LOAN:

The amount of the Loan will be $8.0 million out of a total project cost of $11.0 million. The terms will be forty years, including a grace period of ten years. Interest charged during the grace period will be 2% per annum and 3% thereafter.

3. PROGRAM GOAL:

There is a substantial shortage of food within Bolivia, particularly in basic grains, edible oils and dairy products. Internal production is being supplemented by increasing amounts of food imports. The GOB has declared its intention to stabilize and eventually reduce the level of food imports in the future by supporting a variety of programs aimed at stimulating additional internal production. This project proposes to support the overall GOB goal of reducing the country's food gap and responding to the projected growth of basic food requirements by means of increasing near-term domestic production.

4. PROJECT PURPOSES:

The specific purposes which this project proposes to accomplish are threefold:

(a) To achieve within three years significant increases in the production of basic food commodities by a target group of small farmers for whom credit (for production and capital formation purposes) is the major production constraint;

(b) to reorient, strengthen and institutionalize a commercial credit system that will be responsive to the continuing credit needs of its target small farmer clientele, and thereby broaden the participation of the small farm sub-sector in the credit market; and

(c) to bring about an increase in the amount of credit the domestic banking system makes available for the production of foodstuffs.

5. BACKGROUND:

In recent years the population of Bolivia has been increasing at the rate of 2.6 percent per annum while per capita income has grown at about 3.5 percent per annum for the country as a whole. The result has been an increased demand for food products of about 4 percent annually. By contrast, food production has been increasing at less than 2 percent per year; and, in fact, per capita food production has declined by 13% since 1964.

Recent world shortages of food have further exacerbated local conditions so that Bolivia presently faces shortages of such foodstuffs as basic grains, edible oils, and animal proteins - all of which are essential to achieving an adequate nutritional level for the Bolivian populace. Current estimates indicate that Bolivia ranks lowest among all South American countries in per capita caloric and protein intake.

The nature of Bolivia's declining food position is also highlighted by recent import data. Between 1969 and 1972 agricultural imports as a percentage of total imports have increased from 17.6% to 28.7%. In the latter year total food imports exceeded $ 43 million. Over 70% of 1972 food imports were distributed among the following three commodities, all of which offer significant opportunities for greater domestic production: 1) cooking fats (edible oils and lard); 2) cereals; and 3) milk products. Bolivia in 1972 imported nearly one-third of its total cereal requirements, approximately 80% of its edible oil/fat needs and about one-third of its dairy products.

The options open to Bolivia for dealing with the problem of a shortage of basic foods are limited.

Reliance on food imports to meet Bolivia's increasing needs is not a satisfactory solution to the food deficit problem, given current world food shortages and future uncertainties, both with regard to overall world wide production and access to available supplies. Despite an improved foreign exchange position, the GOB does not want to depend in any large measure on world market suppliers who do not have responsibility for nor particular responsiveness to Bolivia's needs. Furthermore, her relative geographic isolation not only places Bolivia in a weak bargaining position in competing for worldwide supplies, but also compounds problems in moving commodities to Bolivia. Perennially, shortages of imported foodstuffs

appear due to the delays and logistic difficulties in transporting imported food commodities through foreign ports and across large distances to Bolivian consumption centers. While we do not assert that Bolivia should eschew opportunities to continue to expand agricultural exports in favor of autarkic objectives, those commodities which are important foreign exchange earners are adapted to limited production areas in Bolivia. With the existing structure of the agricultural sector and limited resource mobility, it is not technologically feasible to solely rely on a trade strategy to assure that adequate food supplies will be forthcoming to meet domestic consumption needs.

Most significantly, a strategy of reliance on food imports not only would resign Bolivia to incurring a significant and increasing foreign exchange cost, but also would result in her foregoing opportunities for more efficient utilization of domestic resources which can contribute toward increased food production, expand employment, and result in increased incomes for a significant number of the rural population, especially the poor. Bolivia is somewhat unique in possessing vast amounts of unutilized arable land suitable for crop production. Since the food problem is a global one, such opportunities should not be foregone.

The GOB's primary objective therefore is to increase its own domestic food production to the extent possible, and this project would assist in that effort. As a specific target the food supply increases being sought would be aimed at providing sufficient quantities from domestic production to meet additional foods needs arising out of demand shifts resulting from population growth and higher per capita income. While continued imports will be necessary in the near-term, the program contemplates that additional food supply requirements can be met from domestic production rather than higher import levels.

PROJECT DESCRIPTION.

The basic food commodities that will be emphasized under the overall production program are cereal grains, oilseeds, potatoes and tubers, and animal proteins. More specifically, the eligible crops to be supported under the project are as follows: wheat, corn, rice, quinoa, soybeans, peanuts, and potatoes. Eligible livestock enterprises will include dairying, poultry and eggs, and swine production.

In order to meet the projected growth in demand for these commodities,1/ the GOB's overall program will seek to stimulate production from all of Bolivia's farmers, including small, medium, and large-scale

1/ See Table II, p. 13, of the text for quantified estimates of the projected growth in demand.

producers. After examining the constraints faced by the various producer groups and the roles they can play in the production program, the GOB and the Mission have concluded that the best use of the project resources is to provide credit with the loan monies and the GOB project contribution to those small scale farmers who both conform to A.I.D.'s mandated target clientele and who also possess the necessary short-term supply response capability. For the most part these would be small farmers who could expand output rather rapidly by more intensive application of modern inputs or who could quickly increase their capital resources by bringing more land into cultivation, shifting to irrigation, expanding livestock inventories, etc., if credit were available. Estimates of current off-farm sales for the group range from $1,000 to $2,000. The project will establish upper limits for areas under cultivation and loan size to ensure that only small farmers are recipients of project funding. At the same time, and as part of the overall program strategy, the GOB will assure the provision of credit to the medium-sized and large farmers for basic foods production through the commercial banking system in order to attain the overall program production goals.

The project will utilize the FRA in the Central Bank to channel credit through the banking system to the target small farmer clientele. $ 7,250,000 of A.I.D. Loan 511-L-042 capitalized the FRA and it has proven to be a successful credit operation. Recognizing that small farmers are not in a position to compete with large farmers for scarce commercial credit resources, Loan -042 specifically earmarked $ 1,000,000 of the $7,250,000 Loan for use by small farmers, either as individuals or through group organizations. The pilot program has demonstrated that for certain small farmers credit is the key production constraint, that such farmers' credit needs can be serviced through the commercial banking system, and that a significant production response is feasible when such farmers are given access to credit. For example, the FRA small farmer experience has shown that almost $2 of output can be generated for every $1 of production credit inputs. The bulk of the $1,000,000 allocation was disbursed in less than one year (November 1973 to April 1974), and approval of many ICI-approved small farmer sub-loans had to be temporarily suspended as demand exceeded available recuperations or refinancing capacity.

The proposed project would build upon the successful experience of the pilot credit program, and by so doing, would institutionalize a small farmer credit program at an order of magnitude capable of

fulfilling the credit needs of a much larger number of small farmers. At present, a majority of Bolivia's small farmers are not in a position to draw upon the resources of the program envisioned. For those small farmers requiring extension services, a much more supervised credit program, as envisaged under the Agricultural Sector Loan, is necessary. However, after one or two successful experiences with supervised credit many of those farmers should be candidates for credit through the FRA mechanism.

The FRA mechanism which will be utilized to channel the credit resources essentially works as follows: the Central Bank issues directives to eligible Bolivian banks establishing loan criteria, amounts, terms, crops, and collateral requirements. A farmer wishing to develop or increase his production of an eligible product presents his application to the intermediate bank of his choice. His bank makes the credit judgment. If the loan meets the criteria it will then be discounted by the Central Bank.

The loan and GOB contribution will be utilized for sub-lending under three credit categories: 1) production credit; 2) capital goods procurement; and 3) processing/marketing. The production credit category will provide short term operating capital loans to farmers to finance needed inputs such as seeds, fertilizers, insecticides, and hired non-family labor, as well as medium term land habilitation sub-loans. The capital goods category will finance the importation of necessary equipment for agricultural production or marketing. The third category will provide long-term credit for food processors and retailers to finance the capital costs of improving storage, processing and selling facilities for the related agricultural products, as well as short-term commercialization credit.

Under the project, production financing will be restricted to sub-borrowers possessing not more than 20 hectares in the traditional areas (Altiplano and valleys) and 50 hectares in the lowlands. The larger limitations in the lowlands reflect the extensive availability of arable lands in that region and the fact that both spontaneous and GOB-sponsored campesino settlers tend to claim holdings from 30 to 50 hectares. In addition, the amount of hectares financed under the project for production will be restricted to 10 or less.

Cooperatives, pre-cooperatives, rural credit union associations, and other groups of farmers will also be eligible recipients of FRA financing. However, such groups must be composed of small farmers, and the individual land ownership and hectare financing restrictions noted above will be applied to cooperatives on an average per farm family basis to determine eligibility.

For the processing/marketing credit category, the project's sub-borrowers will be restricted to marketing cooperatives comprised of small farmers

and to borrowers undertaking projects in support of the small farmer commodity production program. In refinancing such sub-loans, the Central Bank will require the ICI's to demonstrate in the sub-loan documentation that the investment will provide primary and substantial direct benefit to the small farmer sector.

Access to the capital goods credit category will be restricted to the same small farmer producers, marketing cooperatives, or processors/storers indicated above.

The maximum size of working capital loans under the project's production credit category will be $2,000 and the maximum longer term loan will be $3,000. Thus, the total production loan size, including intermediate-term or capital goods acquisition credits, will be $5,000. For cooperatives or other organized groups of farmers, the above restrictions will apply on an average per member family basis.

The interest rate to sub-borrowers will be 13%, of which the participating ICI will receive 6% to cover the risk of default and overhead and servicing costs. Under Loan -042 the rate was 12%, with 5% for the ICI. The additional point is being allocated to the ICI's to provide greater incentives for small farmer lending. Of the 7% available to the Central Bank, 2½/3% is for interest repayment on the A.I.D. Loan; 2% is to be allocated for administrative expenses; and 2% specifically will be allocated to improve operations and to strengthen the FRA implementation unit charged with monitoring, analyzing and evaluating plans, programs and activities related to the production and marketing of agricultural commodities.

Recuperation of principal from all three of the project's credit categories will return to the fund to be used only for the same general purposes as those for which the A.I.D. and GOB funds were originally made available. The GOB will also repay principal on the A.I.D. Loan from general budgetary resources rather than the fund itself, thus assuring that the fund remains intact as a source of credit to meet the continued needs of Bolivia's small farmers. Moreover, the GOB will covenant to provide beyond the disbursement period of the loan additional resources to the fund as necessary to meet sub-borrowers' demands for basic foods production. In this manner, fund decapitalization will be guarded against, and the small farmer sub-lending will be perpetuated into the future.

7. PROPOSED USE OF LOAN FUNDS AND FINANCIAL PLAN:

The following table indicates the project's financial plan separated by A.I.D. Loan and GOB contribution:

Utilization of Project Funds	Source (US$ millions) AID Loan	GOB Contribution	Total
Production Credit	6.00	1.00	7.00
Processing & Marketing	1.00	1.00	2.00
Capital Goods Imports	1.00	-	1.00
General Credit	-	0.75	0.75
Marketing Study	-	0.25	0.25
Total	8.00	3.00	11.00

The only anticipated direct foreign currency costs under this project will be the $ 1 million in A.I.D. loan funds allocated to capital goods purchases from the revolving credit fund. The remainder of the revolving fund will be used for small farmer borrowing for production working capital such as the purchase of seed, land preparation, land clearing, off-shelf procurement of small tools, payment of non-family labor, etc., and for the construction of small processing and storage facilities, working capital for the purchase of farmers' crops by distributors, etc. We have estimated that the off-shelf procurement included in the above activities will involve approximately 25% of the $ 10 million remaining, or $2.5 million, in purchases of imported shelf items.

The local contribution to the project is 27% of total project costs. However, in this calculation we have included only the $ 3 million in new cash to be contributed by the GOB to project; and such items as sub-borrower contributions in the form of farmer labor, Loan -042 reflows, and ICI - financed portions of sub-loans (amounting to 20% under the capital goods and processing/marketing credit categories) have been excluded. The $3 million, the source of which will be the Central Bank, is significant, particularly given the fact that neither the GOB nor Central Bank made cash contributions to the FRA under Loan -042.

The expected disbursement schedule for the project is as follows:

(US$ millions)

Component	FY 1976	FY 1977	FY 1978	Total
Production Credit	2.45	2.45	2.10	7.00
Processing & Marketing	0.70	0.70	0.60	2.00
Capital Goods	0.35	0.35	0.30	1.00
General Credit	0.26	0.26	0.23	0.75
Marketing Study	0.13	0.12	-	0.25
Total	3.89	3.88	3.23	11.00

8. ECONOMIC FEASIBILITY:

The conclusions that current economic relationships are favorable and that the target clientele will find it profitable to borrow money to finance increased output are illustrated by the following ratios of average gross returns to variable production costs for selected crop enterprises: a) wheat - 1.48; b) corn - 2.17; c) rice - 1.74; d) soybeans - 1.56; and potatoes 1.90. The ratios are based on unit budget summaries and input/output data developed by the Central Bank (based on experience from the -0[illegible] small farmer credit line), the Agricultural Bank, and other GOB agencies. The production costs and yields implicit in the ratios are expected to prevail for the prospective loan clientele throughout the life of the project. While no specific unit budget data have been developed to determine the profitability of livestock enterprises, current price ratios in Bolivia strongly suggest that livestock activities yield even higher returns to limited factors of production than do crops. This conclusion is further supported by observed farmer behavior in expanding production of livestock enterprises, especially in areas having access to major urban markets. Accordingly, it may be concluded that the project is feasible and will yield benefits over costs on the order of 1.5 or 2 to 1 depending on the credit allocation to alternative crop or livestock uses.

9. LOAN IMPLEMENTATION PLAN:

In view of the high priority that the GOB assigns this project, no unusual delays in implementation are anticipated. The Central Bank, the executing agency for the GOB, is familiar with A.I.D. requirements and has demonstrated its capacity to rapidly and effectively implement A.I.D. financed projects. The present Bolivian government has also demonstrated its capacity to rapidly negotiate and implement A.I.D. loans. An estimated implementation schedule from the time the loan is authorized is as follows:

Action	Target Date
1. Loan Authorization	December, 1974
2. USAID/GOB Loan Negotiation	Jan.-Feb. 1975
3. Sign Loan Agreement and Issue Implementation Letter # 1	March 1975
4. Planning and Organizational Activities Related to Meeting Initial Set of Conditions Precedent (including issuance of new directives, staffing additions, and completion of detailed implementation plan)	March - May 1975
5. Conditions Precedent Met	May 1975 (A)
6. First Disbursement	(A) + 1 month
7. Annual Evaluation	(A) + 12 and 24 and 36 months
8. Final Disbursement	(A) + 36 months

Quarterly program planning sessions with the Central Bank, Ministry of Agriculture, and USAID will be held to discuss crop allocations and goals, time schedules, and logistics. In addition, more detailed annual review evaluation sessions will be held to review program implementation matters and progress toward the attainment of the project purposes. Based on these meetings, an annual evaluation report will be submitted by USAID to AID/W.

10. OTHER SOURCES OF FUNDS:

The Export-Import Bank, the World Bank Group (IDA) and the Interamerican Development Bank (IDB) have stated that they are not interested in financing this project.

11. STATUTORY CRITERIA:

All statutory criteria have been met (see Annex 1, Exhibit I).

12. ISSUES:

The project as conceived is devoid of any issues or problems that could impede the progress of its implementation or keep it from achieving its purposes.

13. RECOMMENDATIONS:

On the basis of the conclusions of the Capital Assistance Committee that the project is technically, economically, and financially justified, it is recommended that a loan to the Government of Bolivia for an amount not to exceed $8.0 million be authorized subject to the following terms and conditions:

1. Interest and Terms of Repayment

Borrower shall repay the Loan to A.I.D. in United States dollars within forty (40) years from the date of the first disbursements under the Loan, including a grace period of not to exceed ten (10) years. Borrower shall pay to A.I.D. in United States dollars on the outstanding balance of the Loan interest at the rate of two percent (2%) per annum during the grace period and three percent (3%) per annum thereafter.

2. Other Terms and Conditions

(a) Goods, services (except for ocean shipping) and marine insurance financed under the Loan shall have their source and origin in Bolivia and countries included in Code 941 of the A.I.D. Geographic Code Book. Marine insurance may be financed under the Loan only if it is obtained on a competitive basis and any claims thereunder are payable in freely convertible currencies. Ocean shipping financed under the Loan shall be procured in any country included in A.I.D. Geographic Code 941.

(b) United States dollars utilized under the Loan to finance local currency costs shall be made available pursuant to procedures satisfactory to A.I.D.

(c) Prior to the first disbursement or the issuance of any commitment documents under the Loan, Borrower shall submit to A.I.D. in form and substance satisfactory to A.I.D.:

(i) a detailed Implementation Plan for the Project which shall include the following minimum elements:

(a) quantitative production targets by year for the major commodities addressed by the Program;

(b) a production credit plan outlining how the credit needs of farmers falling outside of the project eligibility restrictions will be met as part of the overall strategy for obtaining the above targets;

* (c) an evaluation plan including baseline data for measuring progress toward the attainment of the Project's purposes.

(ii) revised FRA directives to the participating financial institutions indicating the regulations and procedures to be followed by these institutions in making loans and otherwise administering funds made available under the credit program;

(iii) evidence of adequate staffing within the analytical unit of the Central Bank, including at least two economic statisticians to perform data gathering, analysis and monitoring functions;

(iv) evidence that the GOP's contribution of $3 million will be made in a timely manner.

(d) The Borrower shall covenant that, except as Borrower and A.I.D. may otherwise agree in writing, it will:

(i) contribute $3 million to the Project;

(ii) assure that the FRA is administered in accordance with the directives and other implementation procedures approved by A.I.D., and will make or permit no changes in such directives or implementation procedures governing the credit program without the prior approval of A.I.D.;

(iii) furnish to and review with A.I.D. annually, or at such other times as A.I.D. may request, such financial statements relating to the Project as A.I.D. may request;

(iv) assure that the cumulative outstanding balances of sub-loans refinanced under the Project to any individual sub-borrower do not exceed $2,000 for short-term production credit and $[illegible] for total credit; (for groups of farmers, these limitations will apply on an average per-farm family basis).

(v) assure that repayments of principal from sub-loans will be used only for the same general purposes as described for the project;

(vi) assure that the Central Bank will allocate to the agricultural sector at least 40% of the total resources available to the Special Fund for Economic Development during the period of project implementation;

(vii) assure that the FRA analytical unit of the Central Bank is maintained at a level in quality and quantity of personnel necessary to effectively implement the project;

(viii) analyze on a continuing basis pricing policies as they affect the commodities addressed by the Project and, where appropriate, take the necessary policy decisions to ensure greater production incentives;

(ix) repay principal on both A.I.D. Loan 511-L-042 and the new loan from general budgetary resources rather than the FRA itself, thus ensuring perpetuation of the FRA mechanism;

(x) assure the availability of credit resources to meet the basic foods production credit needs of farmers falling outside of the project eligibility restrictions;

(xi) encourage the participation of a wide-range of financial institutions in channeling credit for basic foods production and marketing;

(xii) assure coordination between the Central Bank and the Ministry of Agriculture in program planning and in the formulation of agricultural credit policy; and

(xiii) assure continued additional financial support through the FRA mechanism to meet the basic food credit requirements of the small farmer target clientele.

(c) The Loan shall be subject to such other terms and conditions as A.I.D. may deem advisable.

16. COMPOSITION OF THE CAPITAL ASSISTANCE COMMITTEE

Carl H. Leonard	-	Capital Development Officer, USAID/B
Douglas N. Jones	-	Agricultural Economist, USAID/B
Randolph Nye	-	Economist, USAID/B
J. Robert Moffett	-	Food and Agriculture Officer, USAID/B
Lee Eckersley	-	Financial Analyst, USAID/B
Lawrence Hausman	-	Capital Development Officer, AID/W
Angel Diaz	-	Program Officer, USAID/B

Reviewed by: Parke B. Massey, Acting Deputy Director, USAID/B

Approved by: John R. Olesen, Director, USAID/B

SECTION I - Nature of the Project

A. Project Rationale

1. Program Goal

There is a substantial shortage of food within Bolivia, particularly in basic grains, edible oils and dairy products. Internal production is being supplemented by increasing amounts of food imports. Nutritional levels — including caloric intake — are declining. The GOB has declared its intention to stabilize and eventually reduce the level of food imports in the future by supporting a variety of programs aimed at stimulating additional internal production. This project proposes to support the overall GOB goal of reducing the country's food gap and responding to the projected growth of basic food requirements by means of increasing near-term domestic food production.

2. Project Purposes

The specific purposes which this project proposes to accomplish are threefold:

a) to achieve within three years significant increases in the production of basic food commodities by a target group of small farmers for whom credit (for production and capital formation purposes) is the major production constraint;

b) to reorient, strengthen and institutionalize a commercial credit system that will be responsive to the continuing credit needs of its target small farmer clientele, and thereby broaden the participation of the small farm sub-sector in the credit market; and

c) to bring about an increase in the amount of credit the domestic banking system makes available for the production of foodstuffs.

Achievement of the first and third purposes will result in a physical production output while achievement of the second purpose will result in an institutional output (a Central Bank credit mechanism that will allocate GOB resources more to the favor of the target small farmer).

An ancillary objective of the proposed loan is to increase the availability of foodstuffs to improve nutritional levels. The IRR indicated that an attempt would be made to relate production increases resulting from this loan to specific nutritional improvements in the diets of the urban/rural poor. Attempts to analyze this relationship during the Intensive Review have not been successful. In conceptual terms it would seem reasonable to conclude that additional income will be generated in the small farm sector and in the urban areas as a result of spin-offs and employment generation; and that given marginal propensities to consume certain food items, a positive but unquantifiable improvement in diet will occur as a result of this loan. During the loan's implementation, the Mission will attempt to test this hypothesis by studying the effects of increased food production on the dietary habits of selected urban and rural groups. In any event, the increased availability of food can not help but have some restraint on food prices and shortages which would be a positive factor in any nutrition strategy which the GOB may adopt during the next three years.

3. The Problem

In recent years the population of Bolivia has been increasing at the rate of 2.6 percent per annum while per capita income has grown at about 3.5 percent per annum for the country as a whole. The result has been an increased demand for food products of about 4 percent annually. By contrast, food production has been increasing at less than 2 percent per year; and, in fact, per capita food production has declined by 13% since 1964.

Recent world shortages of food have further exacerbated local conditions so that Bolivia presently faces shortages of such foodstuffs as basic grains, edible oils, and animal proteins - all of which are essential to achieving an adequate nutritional level for the Bolivian populace. It seems certain that the shortages of key food commodities are contributing to a high incidence of malnutrition among Bolivia's low income families. Current estimates indicate that Bolivia ranks lowest among all South American countries in per capita calorie and protein intake. In 1970 average apparent per capita daily consumption of calories was estimated at 1,834 and of protein at 49 grams. This can be compared to U. S. National Research Council "acceptable levels" of 2,232 calories and 56 grams of protein per day. This suggests a shortfall of 18% and 13% for calories and proteins respectively.

The nature of Bolivia's declining food position is also highlighted by recent import data. Between 1969 and 1972 agricultural imports as a percentage of total imports have increased from 17.6% to 28.7%. In the latter year total food imports exceeded $43 million. Over 70% of 1972 food imports were distributed among the following three commodities, all of which offer significant opportunities for greater domestic production: 1) cooking fats (edible oils and lard) - $8.4 million - as opposed to $4.2 million in 1969; 2) cereals - $17.8 million - as opposed to $12.9 million in 1969; and 3) milk products - $4.1 million - as opposed to $2.8 million in 1969. Bolivia in 1972 imported nearly one-third of its total cereal requirements, approximately 80% of its edible oil/fat needs and about one-third of its dairy products. The prices of all of these items have subsequently increased sharply, causing further large increases in the food import bill. The following table presents information on the aggregate supply position and per capita availability of key food items in the Bolivian diet.

TABLE I

Aggregate Annual Food Supply (1971-73)
(in 000's tons)

Commodity	Domestic Production	Imports	Annual Supply	Per Capita Availability
Cereals	422	200	622	.7 lbs/day
Edible oils	3	6	9	
Lard	1.7	12	13.7	.8 lbs/month
Dairy Products	105	45	150	2.0 liters/month
Potatoes	685	-	685	14.0 oz/day
Pork	20	-	20	12.0 oz/month
Poultry meat	4.5	-	4.5	2.0 oz/month
Eggs (dozens)	16,000,000	-	16,000,000	3 eggs/month

Secular price increases which may be noted over the mid - 1960's to 1972 period also suggest declining per capita food availabilities. From 1966 to 1972 food prices as measured by the La Paz

Consumer Price Index increased by 47 percent. While some of this increase undoubtedly reflects normal inflationary trends, it should be noted that the price index for non-food items increased by less than 30 percent. This indicates that the food price increases were in a large part due to food demand increasing more rapidly than supplies, rather than from broader inflationary pressure alone. Moreover, the dramatic increases in world price levels since the end of 1972 have also been reflected in significant price increases for food items in Bolivia, even for such food staples as corn and potatoes for which Bolivia has no historical record of external trade. During this period corn prices have more than doubled and potatoe prices have increased by over 60 percent. These price rises and increases in the price of wheat flour and edible oils on the order of 112 and 150 percent, respectively, have no doubt placed increased pressure on the household budgets of the poor and have had the effect of rationing many out of the market.

4. Proposed Strategy

a. The Setting

The options open to Bolivia for dealing with the problem of a shortage of basic foods are limited.

Reliance on food imports to meet Bolivia's increasing needs is not a satisfactory solution to the food deficit problem, given current world food shortages and future uncertainties, both with regard to overall world wide production and access to available supplies. Despite an improved foreign exchange position, the GOB does not want to depend in any large measure on world market suppliers who do not have responsibility for nor particular responsiveness to Bolivia's needs. Furthermore, her relative geographic isolation not only places Bolivia in a weak bargaining position in competing for worldwide supplies, but also compounds problems in moving commodities to Bolivia. Perennially, shortages of imported foodstuffs appear due to the delays and logistic difficulties in transporting imported food commodities through foreign ports and across large distances to Bolivian consumption centers. While we do not assert that Bolivia should eschew opportunities to continue to expand agricultural exports in favor of autarkic objectives, those commodities which are important foreign exchange earners are adapted to limited production areas in Bolivia. With the existing structure of the agricultural sector and limited

resource mobility, it is not technologically feasible to solely rely on a trade strategy to assure that adequate food supplies will be forthcoming to meet domestic consumption needs.

More significantly, a strategy of reliance on food imports not only would resign Bolivia to incurring a significant and increasing foreign exchange cost but also would result in her foregoing opportunities for more efficient utilization of domestic resources which can contribute toward increased food production, expand employment, and result in increased incomes for a significant number of the rural population, especially the poor. Bolivia is somewhat unique in possessing vast amounts of unutilized arable land suitable for crop production. Of an estimated 7,847,000 hectares of potentially productive cropland, only 1,074,000 hectares are currently in cultivation. With an estimated 2,502,000 hecatares lying fallow and approximately 4,271,000 arable hectares not in agricultural use, both intensive and extensive opportunities for production increases exist. Since the food problem is a global one, such opportunities should not be foregone.

Policies designed to maintain low food prices for the poor without increases in production would require extensive and continuing subsidies which would be far too great a burden for the public treasury to absorb. The GOB's primary objective therefore is to increase its own domestic food production to the extent possible, and this project would assist in that effort. As a specific target the food supply increases being sought would be aimed at providing sufficient quantities from domestic production to meet additional food needs arising out of demand shifts resulting from population growth and higher per capita income.1/ While continued imports will be necessary in the near-term, the program contemplates that additional food supply requirements can be met from domestic production rather than higher import levels.

b. The Alternatives

Both the GOB and the Mission have examined a number of alternative strategies for dealing with the problem of stimulating

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1/ See Annex IV, Project Logical Framework, for quantified indicators of goal achievement.

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production. Common to each of the strategies is the assumption that the majority of farmers will be included in the national program to boost food production. Those not included are producers of non-food or export oriented commodities, i.e. cotton, tobacco, rubber, hides, coffee, cacao, etc. A review has been made of each of the "producer groups" to determine the present and proposed roles they will play in agricultural production and to outline the constraints each are faced with in increasing production.

A first alternative, perhaps desirable from an efficiency and production maximization viewpoint, would be to work primarily with large-scale farm enterprises and producers who could most easily expand food production with increased credit. This "producer group" is numerically the smallest (less than 1,500), but is the most important group of producers of export crops. They cultivate upwards of 100 hectares - mostly in cotton, sugar cane, soya and beef production, but also some wheat, corn and rice. They are located almost exclusively in the lowlands of the Oriente. Average gross income for these farmers is upwards of $25,000 annually.

The constraints faced by this group in increasing basic foods production are comparatively minimal; labor (shortage during the harvesting season), and to some extent marketing facilities for certain crops (for example, until recently oilseed processing capacity has been a bottleneck to increased soya production). Until January, 1974 the GOB's food pricing policies were a production constraint for certain crops; thereafter, GOB policies have resulted in a pricing structure much more in line with free market prices. Although large-scale producers appear to be relatively price responsive with respect to their primary crops (e.g. a number of farmers shifted out of cotton and into soya, and currently it is expected that a number will expand sugar cane production), they appear to be less so with complementary crops. A strong preference for traditional export commodities continues to exist.

Despite the theoretical validity of the efficiency argument, a number of factors weigh against A.I.D. support of the large-scale farmer: AID's own priorities, the comparatively minimal constraints faced by the large-scale producer, which presumably could be addressed by other means; and the groups' traditional export crop preferences. For these reasons, a joint GOB/USAID determination was made that this "producer group" would not be appropriate recipients of A.I.D. funding.

A second alternative would be to rely extensively on small subsistence farmers for the desired production increases because they form such a large component of the farm population. This "producer group" numbers approximately 550,000 (80% of all farm families) and produces most of the traditional crops - wheat, corn, potatoes, quinua, yuca, bananas, etc. - while frequently raising a few sheep or poultry as well. As can be expected, marginal farmers are scattered throughout Bolivia although they are concentrated on the Altiplano and in the central and southern valleys. The resource endowment of this group is limited. The area under cultivation may range from .25 to 4 hectares, and gross annual sales rarely would exceed $1,000 and generally would be less than $600 for this group.

The constraints to increasing production faced by the marginal farmer group are substantial and wide ranging: traditional agricultural technology compounded by poor education, a limited resource endowment, transportation (rural access roads) and to a lesser extent more efficient transfer channels, lack of credit for production and capital formation, and, until recently, frequently unrealistic GOB pricing policies which offered little incentive to specialize or expand production.

Although concentration on this second alternative would be preferable from a social welfare objective, the Mission has concluded that such subsistence farmers do not presently possess the necessary supply response capability to meet the demands for short-run food production increases that would satisfy the GOB's production goals. Certainly this group, representing the great majority of Bolivian farmers, must play a prominent role in Bolivia's long-term agricultural development; and the current GOB's agricultural development strategy (which is being supported by A.I.D.) is heavily oriented toward this group. The proposed Agricultural Sector Loan and the accompanying technical assistance inputs would focus specifically on this small farm subsistence sub-sector. By emphasizing research, extension, and supervised credit, the thrust of that program would be to begin the process of technological transformation of the subsistence sub-sector so that within several years many of those participants would be able to "graduate" and become viable, commercial producers. Other proposed Mission program in such areas as human resource development and cooperative organization similarly would be directed toward such rural inhabitants in anticipation of their long-term development role.

A third alternative is one which seeks to generate short-run production increases of basic food commodities from among a production oriented group of small and, by Bolivian standards, medium sized farmers who currently have the technology and some capability for expanding production significantly. One element of this alternative relates to medium-sized farmers. They number approximately 20,000 and have from 10 or 20 to 100 hectares under cultivation and many are engaged in modest size livestock enterprises. This group contributes significantly to sector output and produces largely for the commercial trade. Output includes both traditional food crops (corn, wheat, rice, potatoes), commercial crops (cotton, sugar cane, vegetables, soya, citrus) and dairying/livestock and poultry operations. This group is located principally in the Oriente, the Yungas and near large population centers in the central and southern valleys. Their gross off-farm income ranges from $2,000 to $5,000 on smaller operations; up to $25,000 on larger or more intensively managed units.

The other element within this production oriented group is the small-scale farmer who already is engaged in commercial as well as subsistence production. This group numbers approximately 30,000-40,000 . Typically farmers among this group have as little as 2 hectares, which may be irrigated, up to 10-12 hectares under cultivation, depending on location. Most of these small-scale farmers are found in the central and southern valleys, the Oriente and in areas near urban concentrations. Production is largely of food crops (wheat, corn, potatoes, fruits and vegetables, rice, sugar cane, etc.) although many farmers have small numbers of dairy cattle, pigs or poultry. Average gross off-farm income among this group ranges from $1,000 to $2,000. (See Section I.B.2 - Small Farmer Profile).

The constraints faced by both elements in this production oriented group are in many respects similar: availability of credit (for working capital and capital formation purposes), more efficient marketing facilities (for certain crops storage and intermediate processing capacity), and to varying degrees, technological and managerial deficiencies.

Those 20,000 farmers who comprise the medium-sized element of this group generally will have adequate assets and managerial ability to address these constraints on their own and may be considered to be outside the limits imposed by AID's own priorities

The remaining farmers however are appropriate recipients of A.I.D. assistance and offer several advantages as prospective clients for this project. First, they are already engaged in basic food production activities; second, they have a resource endowment which, although limited, permits them to expand productive activities to achieve increased output; and third, a limited number of these small farmers, which we believe are representative of the larger group, have already demonstrated their ability to use credit to expand production.

c. The Target Group

Accordingly, the proposed loan opts to deal with the third alternative, and more specifically, to direct loan resources towards the small-scale farmer who both conforms to AID's mandated target clientele and who also possesses the necessary supply response capability to meet the demand for increased, near-term food production which is the GOB's primary goal. For the most part these would be small farmers who could expand output rather rapidly by more intensive application of modern inputs or who could quickly increase their capital resources by bringing more land into cultivation, shifting to irrigation, expanding livestock inventories, etc., if credit were available. The project will establish upper limits for areas under cultivation and loan size to ensure that only small farmers are recipients of project funding (See Section I.C.4). At the same time and as part of the overall program strategy, the GOB will assure the provision of credit to the medium sized and large farmers for basic foods production through the commercial banking system.

d. The Institutional Vehicle

The above discussion regarding the rationale for selecting the viable small farmer "production group" has concentrated on the need to support the GOB's objective of increasing near-term food production. However, an equally, if not more important aspect of the project from both the immediate and longer-term perspective is the need to strengthen and institutionalize a commercial credit system for small farmers with the technical and managerial capabilities of using it. Figures for the percentage of total farmers with access to institutional credit vary from one percent (USAID Agricultural Sector Assessment) to about five percent (World Bank Paper - Agricultural Credit, Annex Table 3). In either instance it would be safe to say that large commercial farmers have considerably

easier access to credit, and that only a fraction of small farmers can avail themselves of institutional credit. Moreover, the majority of available credit resources are allocated for the production and marketing of such export crops as cotton and sugar cane, as well as for beef production.

Recognizing that small farmers are not in a position to compete with large farmers for scarce commercial credit resources, AID's Loan 511-L-042 specifically earmarked $1,000,000 of the $7,250,000 loan for use by small farmers, either as individuals or through group organizations. The allocation was never expected to have a significant impact in meeting the aggregate credit requirements of small farmers. It was undertaken to launch a pilot credit program to test the response of small farmers and the attitudes of the participating agencies toward small farmer lending (See -042 CAP discussion, p. 32). The pilot program has demonstrated that for certain small farmers credit is the key production constraint; that such farmers' credit needs can be serviced through the commercial banking system; and that a significant production response is feasible when such farmers are given access to credit. For example, the FRA small farmer experience has shown that almost $2 of output can be generated for every $1 of production credit inputs. The bulk of the $1,000,000 allocation was disbursed in less than one year (November 1973 to April 1974), and approval of many ICI-approved small farmer sub-loans had to be temporarily suspended as demand exceeded available resuperations or refinancing capacity.

Building upon the successful experience of that pilot program, the proposed loan would serve to shift the focus of the Agricultural Rediscount Fund (FRA) away from its traditional larger farmer clients, who presumably can gain recourse to other credit sources, and instead concentrate the bulk of its resources on loans to Bolivia's smaller farmers. Thus the long-range importance of the project lies in institutionalizing a small farmer credit program at an order of magnitude capable of fulfilling the credit needs of a much larger number of small farmers. Clearly at present a majority of Bolivia's small farmers are not in a position to draw upon the resources of the program envisioned. For those small farmers requiring extension services, a much more supervised credit program, as envisaged under the Agricultural Sector Loan, is necessary. However, after one or two successful experiences with supervised credit many of those farmers should be candidates for credit through the FRA mechanism.

e. Other Considerations

The strategy, as outlined heretofore, must be viewed within the context of the overall planned USAID agricultural program for, at the same time, the Mission intends to provide other assistance aimed at the longer run process of developing, extending, and implementing appropriate technologies in the small-farm subsistence sector. This proposed project would help achieve acceptance by the GOB of sectoral commitments since it will offer short-run assistance in reducing the food problem while the more complicated programs directed to the small farm subsistence sector are being developed.

An additional element of the project strategy is to influence the GOB more actively to formulate agricultural credit policy, particularly as it relates to basic food production. As a condition for the proposed loan, the GOB would be expected to establish policies which ensure the availability of credit resources for basic foods production by the medium and large-scale Bolivian farmers who do not fall within the project eligibility limits. As a condition precedent, the Central Bank would present a plan indicating how existing and new credit resources within Bolivia would be channeled to basic foods production in support of the overall program production targets.

f. Summary

In sum, there is a duality underlying the basic strategy for the proposed loan: (i) to support the GOB goal of increasing near-term food production by assisting a "producer group" of viable small farmers who have the capability to respond to demands for additional production; (ii) to support the institutionalization of a credit mechanism within the FNA system that will be oriented towards servicing the ongoing credit demands of its small farmer clientele; and (iii) to bring about policies by the GOB/Central Bank which will result in larger amounts of credit from the domestic banking system going into the production of foodstuffs.

In addition, the project would influence the GOB to formulate agricultural credit policy with the considerations of the small farm sector in mind, and also would, as part of the agricultural sector package, help achieve acceptance by the GOB of policy reforms and commitments since it would offer assistance in achieving production increases while the more complicated programs directed to small subsistence farmers are put together and begin

to take effect. Lastly, it would help the agriculture sector to be more responsive to the nutritional demands of the Bolivian populace.

B. Project Focus and Targets

1. Commodities and Geographic Areas

As noted above, the proceeds of this loan will be directed toward increasing production of basic food items currently in short supply in Bolivia. Emphasis will be on commodities for domestic consumption (rather than export) that are currently important farm enterprises for the target clientele, that contribute to satisfying the nutritional needs of both urban and rural consumers, and that will contribute significantly to increased farm incomes among the low-income farmers toward which this project is directed. Four classes of commodities have been identified which will be eligible for sub-loan financing under this project; viz: cereal grains, oilseeds, potatoes and tubers, and animal proteins. The specific crops which will be eligible for production credit will be as follows: wheat, corn, rice, quinua, soybeans, peanuts, and potatoes. To increase production of animal protein commodities, financing for livestock and livestock products will also be provided. Eligible livestock enterprises will include dairying, poultry and eggs, and swine production.

Given that this project is directed toward achieving additional production which will provide the basis for meeting increased demand over the next three years, it is well to consider the specific quantities of commodities which will be required annually to keep pace with increasing demand. Based on current levels of availability and projected increases in demand estimated on the basis of a 2.6 percent annual population growth and per capita income growth of 3.5 percent, incremental food production requirements are as follows:

TABLE II

	Current level of availability	Income Elasticity	Demand Growth %/yr.	Year 1	Year 2	Year 3
Cereals 1/	622.000 MT	.2	3.4	21,000 MT	22,000 MT	22,000 MT
Edible fats & oils 2/	22,700 MT	.5	4.5	3,000 MT	3,500 MT	3,500 MT
Potatoes and tubers	685.000 MT	.6	4.8	33,000 MT	34,000 MT	36,000 MT
Animal Proteins						
Milk or milk equiv.	150,000 MT	1.0	6.2	9,300 MT	9,700 MT	11,000 MT
Eggs	16,000,000 doz.	.9	5.9	900,000 doz.	1,000,000 doz.	1,100,000 doz.
Poultry for meat	4,500 MT	1.7	8.7	400 MT	400 MT	500 MT
Pork	20,000 MT	.7	5.1	1,000 MT	1,100 MT	1,100 MT

1/ Includes wheat, rice, corn, and quinua. While barley is an important cereal grain in Bolivia its primary uses are for forage, animal feed and brewing.

2/ Available edible fats and oils include a mix of commodities derived from domestically produced and processed cottonseed and soybean, from imports of both crude and refined vegetable oils, and import of lard. Incremental production requirements take into consideration additional production of lard associated with increased pork production and assume that further edible fats and oils will come from domestic production of oilseed crops. Annual output requirements reflect needed increases in oilseeds rather than edible oil.

While this project does not contemplate any specific geographic focus nor a specific spatial allocation with respect to utilization of the loan funds, the commodity focus indicated above, and the distribution of the previous FRA small farmer credit, suggest that the major portion of funds will probably be directed toward food production increases in the Departments of Chuquisaca, Cochabamba, Santa Cruz, Tarija and, to a lesser extent, La Paz. These areas already have a demonstrated technological capacity for production of the commodities in question; have a transportation system and marketing infrastructure already in place which can absorb the increased volume of production which is envisioned; are more readily accessible to the commercial banking systems; and possess suficient numbers of low income farmers who fall within the target group indicated above with both managerial capability and access to necessary production factors to expand output if additional credit resources can be made available.

2. Small Farmer Profile

With the likely pattern of geographical utilization in mind, and given the strategy of seeking to generate food production increases from the small farm sector, the project's target group needs to be futher described within the context of the Bolivian agricultural sector.

The agrarian reform activities begun in the early 1950's resulted in the virtual elimination of all farms in excess of fifty hectares in the Altiplano and upper valleys of Bolivia, where almost 95 percent of the rural population was then located. Large holdings were expropriated, divided up and redistributed to campesino farmers in small and often fragmented holdings. While no agricultural census has been taken since 1952, titling records on the redistribution process indicate a resulting average farm size of 7-8 hectares, with less than 4 hectares of arable land, for the estimated 600,000 campesino owners who now comprise at least 97 percent of the sector's agricultural population. Subsequently many of these holdings have been further divided under inheritance practices. Within this area the range of campesino holdings includes farm plots from as small as one-fourth hectare up to the 20-30 hectare limits imposed by the agrarian reform legislation. The range in sizes reflects local population pressures and land use potentials. Where larger-than-average size parcels were awarded, this normally reflected poorer quality land more suitable for livestock grazing or sparser rainfall patterns dictating more extensive cultivation techniques and/or fallowing prac-

tices to conserve moisture as the appropriate farming technology. Agricultural holdings in the lowlands generally were not affected by reform activities, and larger farm sizes reflect the extensive availability of arable lands in that region. Both spontaneous and GOB-sponsored colonization projects have permitted campesino settlers to claim holdings of 20 to 50 hectares, although few have the capability of annually cultivating more than 5 to 6 hectares without hiring extra labor for peak requirements. With the exception of some 3,000 large scale farmers and cattle ranchers in the lowlands, the whole Bolivian agricultural sector is dominated by campesino owners.

More current information obtained from a Ministry of Agriculture survey of rural households taken in 1972 may be useful in characterizing the small-farmer group which is the target of this project. While information obtained from that effort has not yet been fully analyzed nor evaluated, preliminary examination of partial data covering areas where it is most likely that the proposed loan funds would be utilized shows some interesting relationships. The following table presents selected information from the study on size of land holdings, area in cultivation, livestock enterprises and gross farm sales for the areas in which the major proportion of this loan will probably be utilized.

TABLE III

FARM CHARACTERISTICS

		Central Valleys	Southern Valleys	Santa Cruz Lowlands
Estimated Number of Farms		105,000	100,000	26,000
Average size of Holding (has.)		3.4	3.6	40.1
Percent of Farmers holding	10 hectares	87	96	16
	10.1 - 30	13	4	46
	30.1 - 60	*	*	28
	60 or more	*	*	10
Average Area in Cultivation (has)		2.6	2.3	9.2

	Central Valleys	Southern Valleys	Santa Cruz Lowlands
Percent of Farmers Cultivating <4 has	87	94	47
4.1 - 10	13	6	40
10.1 - 20	*	*	4
20 or more	*	*	9
Major Crops Cultivated	Corn Potatoes Wheat	Corn Potatoes Wheat	Rice Cotton Sugar Cane Corn
Percent of farmers with one or more livestock enterprises	98	98	84
Percent of Farmers raising			
Beef Cattle	67	60	22
Dairy Cattle	56	52	24
Swine	36	55	19
Poultry	72	87	79
Sheep	76	85	4
Median Herd Size			
Beef Cattle***	2	2	4
Dairy Cattle	9	4	9
Swine	3	3	5
Poultry	10	10	21
Sheep	16	13	**
Average Value of Off-Farm Sales	$ 700	$ 650	$ 2,100
Percent of Farmers Selling <$ 600	50	55	21
$ 600 to $ 2,000	40	42	53
$2000 to $ 5,000	10	3	16
>$ 5,000	*	*	10

* Less than .5%
** Insufficient data for reliable estimates
*** It should be noted that cattle are also used as draft animals especially in the Central and Southern Valleys.

While a precise definition of a small farmer requires some arbitrary judgements, it is obvious that the large majority of farmers in the southern and central valleys fit this category. In these areas the mean size of farm holding is about 3.5 hectares with over ninety percent owning 10 hectares or less. On these farms the average area in cultivation is less than 2.5 hectares; and, again, about 90 percent of the farmers cultivate less than 4 hectares. Over 93 percent of all farmers have gross cash incomes of less than $2,000.

The mean size of farm holding in the Santa Cruz region is somewhat larger, about 40 hectares; however the average area in cultivation per farm is only around 9 hectares. Moreover, almost half of the farm operators have less than 4 hectares in cultivation; and only one farmer in eight cultivates more than 10 hectares. The large proportion of land not in cultivation on many of these farms reflects the extensive nature of the slash and burn technology of this area, and suggests that significant production increases could be obtained if more land could be cleared and brought into cultivation on these farms.

WITH SANTA CRUZ REGION FARMS ARE LARGER

Almost every farm in the sample survey reported more than one crop enterprise, and nearly every farm had some type of livestock. The data further indicate that cattle and hog enterprises are much more important among farmers in the central and southern valleys than in the lowlands, although the median herd size is somewhat higher on livestock farms in the Santa Cruz area. Small poultry enterprises are common in all areas, and sheep are found on a high proportion of farms in the central and southern valleys but only on an occasional farm in the lowlands. The relatively small median herd size and the fact that almost all farms have some livestock production enterprise suggest an opportunity for expansion of animal protein production in the small-farm sub-sector in all three areas.

The estimates of average value of off-farm sales also indicate a wide variance between the valleys and the Santa Cruz area. However, these data need to be interpreted with care inasmuch as the estimates reflect gross rather than net income. Cash production costs are no doubt higher in Santa Cruz where the typical crop mix includes sugar cane, cotton and rice for which large amounts of labor must be hired for tillage and harvest. Moreover, the higher proportion of large commercial farms in the Santa Cruz area tends to increase the mean value of sales for the region.

While many of the farmers in the valley and lowland areas do not have a resource endowment which would permit them to expand production at the extensive margin nor the knowledge or management capability to increase output through more intensive cultural practices, there is within this broad spectrum of small farm owners a number of farm operators whose principal constraint to increase production is credit; and who may be reached through the private and public banking system. These farmers represent the project's target group. As compared to the average campesino-owner, members of this group will already have some knowledge or experience with technological innovations (improved seeds, irrigation, fertilizer and/or chemicals, cooperative mechanization schemes, improved livestock breeds, etc.); have better quality but not necessarily more land; have more favorable access to transportation facilities and markets; have begun to specialize in their output; and have developed some record of commercial transactions indicative of their credit-worthiness. An estimate of average off-farm annual sales for this group is around $1,000 - $1,200. Net cash income is somewhat lower than this, most likely in the $600 - $900 range. On a per capita basis, this would amount to about $120 - $160 annually. Socially and culturally members of this group do not differ significantly from the other campesino-owners.

It is estimated that the 30,000 to 40,000 farmers who comprise this group could effectively utilize credit to rapidly expand food production and thus increase their farm incomes. However, of this group not all would necessarily be loan candidates under the project. There are some whose own debt preference would result in internal credit rationing, and others who would not be acceptable credit risks to the intermediate credit institutions which must make the credit judgement and ultimately guarantee repayment of advances to the Central Bank. In the Missions judgement less than half - from 10,000 to 13,000 farmers - are potential clients for production loan money being made available under this project. While we do not necessarily expect that all of these potential clients will become actual borrowers, it is fundamentally this group that the project will serve.

More specifically it is expected that clientele to be served by this loan will include:

a) Small campesino-owners, primarily in diversified crop production in the departments of Cochabamba, Chuquisaca, and Tarija owning up to 20 hectares but annually cultivating from about two to ten hectares only.

b) Small campesino-owners in the department of Santa Cruz who are moving from slash and burn technology to a stable cultivation pattern, and who hold up to 50 hectares of which only 20 percent may be in cultivation.

c) Campesino-farmers with small livestock enterprises producing dairy products, pigs or poultry, generally located near urban communities of 25,000 or more inhabitants. These farmers normally hold less than twenty hectares except in the Santa Cruz lowlands where they may hold up to fifty hectares of which less than 20 percent is in cultivated crops or pasture.

d) Rural cooperative organizations which are comprised mainly of small holders whose characteristics are similar to the groups described in a), b), and c) above.

That such farmers can utilize credit is evidenced by the experience with the FRA which was established under A.I.D. Loan -042. Within that program special funds were designated for lending to small farmers for short term working capital. While the definition of a small farmer under the project included those cultivating up to 50 hectares, 68 percent of the individual loans made from the small farmer line of credit were for financing cultivation units of 10 hectares or less, and 56 percent of the small farmer loans were for five or less. The following indicates the distribution of individual loans by number of hectares financed:

1 ha. or less	7%
1 - 5 ha.	49%
6 - 10 has.	12%
11 - 20 has.	21%
21 - 50 has.	11%

While the above data do not indicate the total number of hectares owned or controlled per farm, the large proportion of loans for small unit financing suggests that most farmers probably held less than 20 hectares.

Additional data which indicates how the one million dollar line of credit for small farmers and cooperatives from the previous FRA loan (511-L-042) was utilized is presented below: (Table IV).

TABLE IV

Individual Loans	Wheat	Soya & Peanuts	Corn	Rice	Other	Total
Number of loans	288	43	59	28	6 1/	424
Central Valleys	(56)		(1)		(2)	(59)
Southern Valleys	(209)	(14)	(43)		(4)	(270)
Santa Cruz Lowland	(23)	(29)	(15)	(28)		(95)
Total amount loaned	$152,421	$122,123	$49,747	$50,050	$8,662	$383,003
Total number hectares farmed	1,920	954	640	522		4,086
Avg. size of loan (US$)	59	2,840	843	1,787		903
Avg. number hectares financed per loan	6.7	11.2	10.8	18.6		9.5
Avg. amount loaned per hectare (US$)	79	253	78	96		95
Coop Loans						
Number of loans	11 2/	12 3/		21 3/		44
Number of members	259	288		269		816
Total amount loaned	$115,784	$621,850		$124,250		$861,284
No. of hectares fin.	1,448	2,850		1,415		5,713
Avg. financing per hectare (US$)	80	218		88		151
Avg. number of hectares per member	5.6	9.9		5.2		7.0
Avg. sub-loan size per member 4/ (US$)	447	2,158		457		1,055

1/ Includes three loans for fruit and vegetable farming and three for dairy enterprise.
2/ Three in southern valley and four each in central valleys and Santa Cruz lowlands.
3/ All in Santa Cruz lowlands.
4/ No information is available on the size distribution of sub-loans within cooperatives, but it may be assumed that variance in loan size was probably small.

The 10 - 13 thousand small farmers which this project will serve are expected to be equally as responsive in terms of demand for credit as those described above.

Candidates for the larger credits to be provided outside this loan would be the medium and larger farm operators engaged in more specialized commercial production and whose own resources and managerial capacity facilitate obtaining and utilizing larger amounts of credit through normal banking channels or through other lines of credit available for larger scale commercial production.

C. Project Description

1. Limits of Project Financing

The following table calculates the credit requirements necessary to obtain the commodity production targets previously described (See Table II). In developing the table, recent FRA experience was utilized to project production costs and resource requirements for the various commodities over the three year period. Actual production costs were then discounted by non-cash costs (e.g. farm family labor, natural fertilizer) to arrive at the credit requirements. The calculations are based on incremental requirements, and assume that working capital production credits will be available in successive years over the project period. As indicated in the table, the total credit requirement to meet the program production goals is approximately $35 million.

Therefore the project (the new A.I.D. loan money of $6 million for production credit and $1.75 million of the GOB's $3 million contribution) can be expected to meet approximately 22% of the credit requirements for the program targets. Thus, to attain the overall program goal production targets, a financial gap of slightly more than $27 million will have to be filled. While approximately $6 million of this can be met from projected loan -042 reflows over the period, the balance of $21 million (or $7 million a year) can be filled only by an expansion of commercial bank credit to agricultural producers by channeling a substantial share of the annual expected increase in credit availabilities to basic foods production.

Annex III contains projections of credit availability to the private sector over the coming three year period. Under the most probable projections, total private sector credit is expected to increase by approximately $45 million annually. Currently, credit to the agricultural sector is 33 percent of total credit to the private sector, having increased substantially in recent years. Clearly

T A B L E 5

INCREMENTAL PRODUCTION, AREAS, AND CREDIT REQUIREMENTS

	YEAR 1			YEAR 2			YEAR 3		
	Year 1 Prod. Increment	(ha.) Area Increment	$(000) Credit Req.	Year 2 Prod. Increment	(ha.) Area Increment	$(000) Credit Req.	Year 3 Prod. Increment	(ha.) Area Increment	$(000) Credit Req.
Cereals	21000 M.T.			24000 M.T.			28000 M.T.		
Wheat (24%)	5040 M.T.	5000	680	5300 M.T.	5300	741	5300 M.T.	5300	741
Corn (54%)	11000 M.T.	6111	562	11400 M.T.	6333	583	11400 M.T.	6333	583
Rice (19%)	4000 M.T.	2400	458	4200 M.T.	2520	476	4200 M.T.	2520	476
Quinoa (5%)	1000 M.T.	1440	91	1100 M.T.	1584	99	1100 M.T.	1584	99
Oilseed Crops	3000 M.T.	3000	528	3500 M.T.	3500	616	3500 M.T.	3500	616
Potatoes	33000 M.T.	6000	2890	34000 M.T.	6188	2967	36000 M.T.	6540	3142
Animal Protein									
Milk Equiv.	9300 M.T.		1934	9700 M.T.		2019	11000 M.T.		2289
Pork	1000 M.T.		515	1100 M.T.		567	1100 M.T.		567
Poultry(meat)	400 M.T.		343	400 M.T.		343	500 M.T.		429
Eggs	.9 x 10^9 doz.		474	1.0x10^9 doz.		527	1.1x10^9 doz.		580
Total			8450			8907			9491
Land Clearing		4000	1300		5000	1625		6000	1950
			9750			10532 1/			11441 1/
			-			1053			2288
TOTAL			9750			11585			13729

Total Credit Requirement $35,064,000

1/ Credit requirements in years 2 and 3 are increased by an inflation factor of 10 and 20 percent respectively.

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sufficient credit should be available to meet the overall needs envisaged. Even assuming that credit to the agriculture sector levels off at 33% of credit to the total private sector, the yearly increment to the agriculture sector would approximate $15 million, less than half of which would have to be channeled to basic food production. The implications of such a credit allocation to meet the basic food production goals are set forth in detail in Section II.B. In summary, basic foods credit as a percentage of total private sector credit would have to increase from an estimated 4% in 1974 to 9% of total credit by the end of the three-year program. Relative to total agricultural credit, basic foods credit would have to increase from 11% (1974) to 25% of total agricultural credit by the third year.

The Central Bank has available to it several mechanisms to ensure that such an allocation is achieved, including marginal reserve requirements, selective rediscounting procedures, and portfolio controls (Also see Section II.B for a discussion of those instruments). As a condition precedent to disbursement under the loan, the Central Bank would present an overall credit plan indicating what mix of policy measures will be adopted to ensure the availability of credit to meet the basic foods program goals.

2. Project Elements - Utilization of Project Resources

The $8 million A.I.D. loan and $2.75 million of the $3 million GOB contribution will be divided into three credit categories for sub-lending to borrowers meeting eligibility criteria. Six million dollars of the A.I.D. loan and $1 million of the GOB contribution will form a production credit category; $1 million of the A.I.D. loan will be utilized for a capital goods credit category; $1 million of the loan and $1 million of the GOB contribution will form a processing/marketing credit category and $750,000 of the GOB contribution will be available for general credit to small farmers or for marketing or processing as needs arise.[1]

The production credit category will provide short term working capital loans to small farmers in crop or livestock production to finance needed inputs such as seeds, fertilizers, insecticides, veterinary supplies, and hired non-family labor as well as medium term loans for such uses as land habilitation or livestock acquisition. The capital goods category will finance the procurement by sub-borrowers of imported equipment for agricultural production and processing. The

1/ See Section II.C.1 for a discussion of the demand for credit.

marketing category will provide short-term working capital to marketing cooperatives, food processors and distributors for product commercialization and long-term loans to marketing cooperatives, processors and other market intermediaries to finance the capital cost of erecting, equipping or improving storage, processing, and selling facilities for agricultural products, by-products, and end-products. Under all credit categories, emphasis will be given to groups of farmers or marketing cooperatives.

The $250,000 balance of the GOB's contribution will be utilized to contract for studies of the complete marketing system and investment opportunities for the crops produced by small farmers and supported by the commodity production program.

3. Mechanism

The project will utilize the Agricultural Rediscount Fund (FRA) within the Central Bank as the mechanism for channeling production and marketing credit to the target small farmers through the commercial and quasi-commercial banking system. The FRA was capitalized by an A.I.D. Loan in 1971 (A.I.D. Loan 511-L-042). It has proven to be an effective, successful credit operation, although certain improvements are needed (See the Mission's PAR, FY 75-2).

Essentially, the FRA works as follows: the Central Bank issues directives to eligible intermediate credit institutions (ICI's) establishing loan criteria, amounts, terms, crops, and collateral requirements. Before major crop campaigns such as the traditional wheat season, the Central Bank meets with concerned agencies to discuss goals, time schedules, logistics, and responsibilities for implementation of the campaign. These meetings have recently been instituted in order to assure coordination with Ministry of Agriculture in the formulation of agricultural credit policy and in planning intensive crop production programs, as well as to improve portfolio management. Publicity includes radio and press announcements often in native languages. A farmer wishing to develop or increase his production of an eligible product presents his application to the intermediate bank of his choice. The ICI makes the credit judgement and assumes the credit risk. In some cases, the National Community Development Service has assisted small farmer organizations in preparing applications and in directing potential sub-borrowers to intermediate banks.

Upon approval by the ICI, the loan enters the FRA system. The participating ICI presents to the FRA implementation unit (at the regional or central level) sub-loan supporting documentation including such items as a farm plan, the ICI's evaluation of the project, a letter requesting refinancing, and in the case of equipment purchases, commercial invoices. The FRA implementation Unit reviews the application for conformity with the FRA directives, briefly reviews the investment plan, and checks the cost of production data and expected return against standard indicators.

If additional information is not required, the Implementation Unit prepares a brief report for the Central Bank Board and Operating Manager. The Board formally approves those loans greater than $6,000, such as loans to cooperatives, and ratifies all other loans which have been approved by the regional offices, at which point the Operating Manager formally advises the ICI by letter. Upon approval, journal vouchers and sub-borrower cards are issued and kept up-to-date with daily reconciliation between the Central Bank Financial and Accounting Division. Disbursements are effected through the Central Bank's correspondent in the interior, the Banco del Estado.

For sub-loans of less than $6,000 the average processing time within the Central Bank is one week (the regional offices notify the central office of their approval by telephone). For larger loans, the total evaluation and approval time is one week plus an average 10 days mailing time for the transmittal of documentation from the interior.

The Central Bank has expanded the original FRA Implementation Unit from three people - an engineer-agronomist, agronomist and economist - to include regional offices in Cochabamba, Tarija, Sucre, Potosí, and Santa Cruz - the area of greatest FRA activity. The regional offices have assisted in publicizing the program, explaining FRA regulations and procedures to local ICI's and sub-borrowers, and, in general streamlining operations.

4. Sub-loan criteria

a. Eligibility criteria for sub-borrowers

Since an objective of the project will be to establish through the FRA system a credit system directed toward the needs of

small farmers, production financing under this project will be restricted to sub-borrowers possessing not more than 20 hectares in the traditional areas (Altiplano and valleys) and 50 hectares in the lowlands. The larger limitations in the lowlands reflect the extensive availability of arable lands in that region and the fact that both spontaneous and GOB-sponsored campesino settlers tend to claim holdings from 30 to 50 hectares. In addition, the amount of hectares financed under the project for production will be restricted to 10 or less.

Cooperatives, pre-cooperatives, rural credit union associations, and other groups of farmers will also be eligible recipients of FRA financing. However, such groups must be composed of small farmers, and the individual land ownership and hectare financing restrictions noted above will be applied to cooperatives on an average per farm family basis to determine eligibility.

For the processing/marketing credit category, the project's sub-borrowers will be restricted to marketing cooperatives comprised of small farmers and to borrowers undertaking projects in support of the small farmer commodity production program. In refinancing such sub-loans, the Central Bank will require the ICI's to demonstrate in the sub-loan documentation that the investment will provide primary and substantial direct benefit to the small farm sector.

Access to the capital goods credit category will be restricted to the same small farmer producers, marketing cooperatives, or processors/storers indicated above.

b. Type of sub-loans

Eligible uses of sub-loan funds by sub-borrowers would include the following:

1) Production Credit Category

Crop Production

a) Short term working capital

(i) Soil preparation (non-family labor costs or equipment rental for plowing).

(ii) Inputs (purchases of seeds, fertilizers, insecticides and pesticides).

(iii) Non-family labor costs or equipment rental services for seeding, weeding, and harvest.

(iv) Transportation expenses to storage, processing, or marketing centers.

b) Medium term land habilitation (non-family labor costs or equipment rental services for land clearing, leveling and cleaning and for undertaking irrigation, drainage, and erosion control measures).

Dairy, Pork, Poultry Production

a) Short term working capital

i) Forage and feed cultivation.

ii) Purchase of veterinary supplies and payment for veterinary services.

iii) Purchase of balanced, concentrated feed.

iv) Purchase of implements.

b) Medium and long term

i) Construction of livestock stables.

ii) Fencing installations.

iii) Acquisition of improved breeds.

2) Capital Goods Credit Category (medium and long-term).

a) Tractors, tillers, plows, harvesters, thrashers, balers.

b) Dairy refrigeration equipment.

c) Poultry incubators.

d) Fumigation equipment.

e) Irrigation equipment (pumps and motors).

f) Processing and storage equipment.

3) Processing/Marketing Credit Category.

a) Commercialization (short-term working capital loans to processors)

b) Silo and storage facility construction (medium and long term).

c) Processing plant construction/expansion (medium and long term).

The above credit categories are interrelated, and one project could include, for example, a request for imported machinery and production working capital.

c. Sub-Loan Ceilings

The maximum size of working capital loans under the project's production credit category will be $2,000 although we would expect the average size to be in the $800 - $1,200 range. The maximum intermediate or long term loan will be $3,000. Thus, the maximum total production loan size, including intermediate-term or capital goods acquisition credits, will be $5,000. For cooperatives or other organized groups of farmers, the above restrictions will apply on an average per member family basis. The above restrictions are consistent with the target group characteristics (land holding, off-farm sales) previously described.

d. Terms and interest rates

The interest rate on sub-loans made by the participating financial institutions will be 13%, without regard to the type of project or the maturity of the particular loan. At this rate of interest, the participating financial institution will receive a 6% gross spread to cover the risk of default and overhead and servicing costs[1]. The 6% spread will be attractive to the financial institutions since the comparable spread between savings and time deposit rates and ICI yields on commercial lending rates is 5%. Of the 7% available to the Central Bank, 2/3% is for interest repayment on the A.I.D. Loan; 3% is to be allocated for administrative expenses; and 2% specifically will be allocated to improve operations and to

1/ At present, the gross interest on sub-loans under Loan -042 is 12% with a 5% spread to the ICIs. With the increase in the interest rate to 13%, the additional point is being allocated to the ICIs to give them greater incentives for undertaking small farmer lending.

strengthen the FRA implementation unit charged with monitoring, analyzing and evaluating plans, programs and activities related to the production and marketing of agricultural commodities. Section II.B explains the rationale for selecting the interest rate and provides information on the overall interest rate structure in the economy.

The terms of sub-loans will be as follows:

		Up to
1)	Working capital for production loans	12 months
2)	Land habilitation	3 - 5 years
3)	Medium term livestock loans	5 "
4)	Capital goods acquisition	5 "
5)	Working capital for marketing or processing loans	12 months
6)	Processing/storage facility construction or expansion	10 years

e. Reborrowing rights and limitations

Individual or cooperative sub-borrowers may receive follow-up sub-loans provided that at no time their total loan outstanding balances exceed the ceilings described under heading(c) above.

f. Utilization of repayments

Recuperation of principal from all three of the project's credit categories will return to the fund to be used only for the same general purposes as those for which the A.I.D. and GOB funds were originally made available. Same general purposes means for the same crops with the same eligibility restrictions on sub-borrowers' and sub-loans' size. The percentage allocation of the portfolio among the three credit categories, however, could be adjusted in the future depending on requirements. Also, additional food or feed crops could be added to the eligible list as needs arise. In this manner, the fund for small farmer basic foods production will be perpetuated.

D. Background

1. Brief Sector Background

Bolivia has an extensive but diverse agricultural sector which provides employment for approximately 65% of the work force. The vast majority of its population is engaged in low productivity, traditional agriculture. Primitive technology predominates on small land holdings, with a large share of production being consumed on the farm. Geographically, Bolivia has an unbalanced population distribution, with most farmers found primarily in the altiplano and high valleys and in limited pockets in the low-land areas of the oriente. An emerging commercial farm sector in the oriente provides a contrast to the small farm sector. Larger farms, more modern technology, commercial production and lower population densities characterize the oriente.

An analysis of the contribution of the various sectors to Bolivia's GDP in the past decade indicates that all sectors realized increases in outputs. However, agriculture grew at only about 1.9 percent annually, a figure well below the growth recorded by almost all other sectors. Furthermore, since 1962, agriculture has been the only sector whose share of GDP has continued to decline (21% in 1972 as opposed to 30% in 1962). Nonetheless, a disaggregated view of the performance data for the sector shows some dramatic production increases in certain crops among both large and small scale operations, primarily in the oriente, e.g. cotton, rice and sugar cane.

Examination of the production trends of the three principal commodity groups reflects the structural constraints affecting the sector. The first group, the traditional food staples (potatoes, barley, quinua, corn and vegetables), is grown in the Altiplano and the high valleys. Output of most traditional crops has increased during the last decade, e.g. potato production, accounting for one-third of Bolivia's agricultural output, has increased at an average rate of 5 percent per annum over the last decade. Output growth, however, apparently resulted from additional labor inputs rather than from increases in area under cultivation or improved techniques. Labor productivity and thus agricultural incomes remain very low.

A second group of commodities is composed of wheat, edible fats, oils and dairy products. Possibilities of import substitution for these products are considerable. The 1972 import value of these products amounts to over US$30 million, with wheat flour representing half of the total. Production of wheat is low because of primitive production

techniques and insufficient availability of credit and extension services. Much the same is true of dairy production. It is the commodities within the above two groups that the proposed loan intends to support by providing the target small scale farmer with credit for production and capital formation and by making funds available for processing and storage.

The third group of agricultural products, with the exception of soybeans, are essentially export commodities (sugar, cotton, beef), and while they have no role in the proposed loan, are able to offset some of the import costs of the second group of commodities.

2. Genesis of the Project

The project is an outgrowth of discussions between USAID officials and the Bolivian counterparts which took place as the Mission Sector Assessment was taking shape. The previous experience with the FRA indicated that rapid increases in food production could be obtained through increased availability of credit not only on large scale commercial farms but in segments of the small-farm sub-sector as well. The success of that previous project and the fact that loan funds were fully disbursed a year ahead of schedule led to the GOB's interest in expanding the capital resources of the FRA. Accordingly, in late FY 74 the Mission submitted the loan proposal as a "shelf-loan" possibility, However, it was not included in the Agency's FY 75 Congressional Presentation. The loan was more fully described in the Mission's FY 1976 FBS submission. An IRR was presented to AID/W in October, 1974. The DAEC reviewed the IRR on October 8 1974, and approval was obtained to proceed with the intensive review.

3. Relationship to Sector Strategy

The GOB's longer range agricultural development strategy, (discussed in greater detail in the Mission's Agricultural Sector Assessment pp. 279 ff) calls for: a shift to more modern production techniques especially in the small farm sub-sector; improving the quality of human resources in agriculture and agricultural support activities;

providing a policy environment which will be conducive to effective and efficient product and factor markets; and strengthening public services to the agricultural sector. Recognizing that the above four point strategy will require several years to produce significant results, the GOB's near-term efforts are being directed toward obtaining more immediate production increases and capital development in the sector, which will complement the results of the longer term strategy as it comes to fruition. USAID's overall agricultural sector program is directly supportive of both the near and longer-term GOB sectoral efforts.

USAID's new technical assistance project which is directed toward strenghtening research and extension activities, increasing professional training and rural adult education opportunities and improving planning and policy analysis at the central government level will support the GOB's long range strategy, and will focus especially on the marginal small farm sub-sector in the intermountain valleys of central Bolivia and in the Santa Cruz lowlands. Similarly, the planned Agricultural Sector Loan I will emphasize agricultural research, extension and credit activities designed to bring modern technology and resources to the marginal small farm sub-sector. Credit provided in the Agriculture Sector Loan I will flow to the small farmer as part of a package which will include supervision and training to permit farmers to shift to more modern, more productive, and more profitable production technologies. At some future date it is expected that the marginal small farmer will graduate to the more commercial and less supervised credit of the type proposed here. However, as noted earlier, it will take several years for the above described program to have a significant impact on Bolivia's aggregate food production. For the interim period, there is a need for programs which will have a more immediate impact in achieving rapid supply response to meet pressing short and medium term needs for increased food production. Accordingly, the proposed project has been designed to support the GOB's near-term production efforts.

4. Previous A.I.D. Support - Loan 511-L-042

Last August, 1974 a detailed evaluation of the A.I.D. Loan 511-L-042 was undertaken to determine the progress made in attaining the project purpose and to discuss implementation problems pertaining to the project. The complete report is available in LA/DR, AID/W. Basically the conclusion was that the FRA has demonstrated its effectiveness in meeting short-term agriculture production responses. However, certain deficiencies in the operation of the FRA were identified. For instance, the Central Bank made too many loans for land clearing in 1973 thereby creating a shortage of funds for annual production loans during 1974. Also, loans for soya production outran soya seed availabilities. In an effort to meet the strong demand, the FRA at one point

was heavily over committed. The Central Bank is taking measures to correct these planning deficiencies and credit distortions by strengthening its implementation unit, by developing a more rigorous definition of credit criteria (time, amount, purpose) and by entering into an agreement with the Ministry of Agriculture that the FRA credits will be pro-rated in accordance with the yearly crop plans to be provided by the Ministry of Agriculture. Regarding the over commitment problem, the Central Bank has been utilizing its own resources for valid authorizations to keep the FRA going. The Institutional Analysis of the paper (Section II.A.) details the list of actions resulting from the evaluation and indicates the corrective measures instituted by the Banco Central to improve operations.

The distribution of FRA credits by crop as of April 30, 1974, was as follows:

CROP DISTRIBUTION
(000's of pesos bolivianos)

CROP		Amount Originally Approved		% of Total		Amount Disbursed		% of Total
Wheat		30,540		13		13,895		9
Oilseeds								
Production	63,360		28		47,592		31	
Land Clearing	81,313		36		54,935		36	
		144,673		64		102,527		67
Corn		7,570		3		6,312		4
Rice		7,412		3		6,856		4
Fruits & Vegetables		486				208		
Milk		14,692		7		12,127		8
Fats/Pork		13,469		6		5,940		4
Poultry		8,371		4		5,870		4
Other		515		—		515		—
TOTAL		227,728		100		154,290		100

The distribution of FRA credits by region as of April 30, 1974, was as follows:

GEOGRAPHIC DISTRIBUTION

Department	Amount Disbursed in 000's of $b	% of Total	Number of Sub-borrowers	% of Total
Beni	855	.55	14	.7
Chuquisaca	4,256	1.75	199	10.5
Cochabamba	6,499	4.18	266	14.0
La Paz	4,444	2.89	7	.4
Potosí	3,068	2.00	51	2.7
Tarija	12,466	8.08	338	17.9
Santa Cruz	122,712	79.55	1,017	53.8
TOTAL	154,250	100.0	1,892	100.0

Concerning production accomplishments, the FRA Implementation Unit estimates that the FRA credits extended to date for principal crops have had the following impact:

Crop	Area Planted		Estimated Production	
Oilseeds	6,968	Has.	10,256	MT
Wheat	11,817	"	13,779	"
Corn	1,501	"	2,250	"
Milk			1,440,000	Lts/yr.
Rice	3,000	"	4,700	MT

Equipment purchases have been largely for the cultivation of soybeans (tractors, harvesting equipment) and milk production (pumps, motors, etc.). Marketing credits have largely been allocated for the commercialization of wheat and soya, animal livestock product processing and on-farm storage facilities.

A schedule of projected FRA recuperations appears as Annex V. In theory, the FRA cannot have arrearages, as the financial risk lies with the ICI. In fact refinanced sub-loans are guaranteed by ICI deposits held in the Banco Central. The Banco Central can approve sub-loan extensions for ICI's which have in turn approved extensions for their sub-borrowers. As of April 30, 1974, the Banco Central had approved extensions totalling $b 2,036,682 for 33 sub-loans made by the Banco del Estado in Santa Cruz, Montero and Portachuelo. All 33 sub-borrowers had lost their winter wheat harvest due to drought in 1973. Each extension was individually studied, including an on-site visit.

5. Consistency with CIAP Review and Other Donor Activity

The loan project is consistent with the findings and recommendations of CIAP. CIAP has generally identified the same set of factors restricting agricultural development as USAID/Bolivia including: 1) poorly developed factor and product markets, particularly credit, especially in traditional areas; 2) low productivity and limited supply response capability among the major share of the rural population in traditional production areas; and 3) lack of adequate financial and human resources in GOB agricultural institutions. The proposed loan project directly addresses the first constraint noted above, while other USAID programs, such as the Agricultural Sector Loan I and the Technical Assistance Project, will be concerned with the other elements indicated as of priority concern by CIAP.

Concerning other international donor agency participation, the IBRD is preparing an appraisal report for a possible loan to the Bolivian Agricultural Bank (BAB) of about $11.0 million to support beef cattle raising in the Beni, and other areas of the oriente, sheep raising in the altiplano, and production of such crops as cotton and sugar cane in the Santa Cruz lowlands. Both the IDB and IBRD also are presently considering regional development programs in rural areas. Tentatively, the IDB programs are to focus in selected areas of the Central Altiplano and southern valleys while the IBRD is interested in developing a project in the northern Altiplano. Finally, the IDB is initiating a project for pork production in the southern portion of the Department of Chuquisaca. We do not know what financial support will be required by these projects.

In addition, a proposed British Tropical Mission project would provide technical assistance for the production of cotton, sugar cane and tropical forages.

SECTION II - PROJECT ANALYSIS

A. Institutional Analysis

The Borrower would be the Government of Bolivia whose capacity to repay this Loan is discussed in Section II.C. The executing agency for the Loan would be the Banco Central de Bolivia (Central Bank).

1. Brief History

The Central Bank was founded in 1928, and now operates under a law published in December, 1945. By Decree Law Number 9440 of 1970, the Banking Department of the Central Bank was established as an independent, autonomous institution under the name of Banco del Estado. From that time forward, the Central Bank has operated solely as a central bank acting as an advisor on credit policy and intervening in all foreign borrowing operations. The Central Bank does not deal with the public, except in collecting exchange receipts from exporters; nor does it maintain capital of its own except for a legal reserve fund which it accumulates from a 20% share of profits acquired from foreign exchange transactions which it uses to buy gold and foreign currencies.

2. Organization/Operation

The Central Bank has recently organized a separate and specialized Development Division for the planning, evaluation, technical analysis and implementation of development projects. Included in this division are the operations of the FRA, the Industrial Refinancing Fund (FRI) and the Special Fund for Economic Development (SFED). It is planned that the Basic Foods operation will also be included under this division.

There are two main sections under this Division: a) the Evaluation Section which includes the FRA Technical Analysis, FRI Technical Analysis and the Economic and Financial Analysis sub-sections; and b) the Operating Group which includes the accounting and reporting sub-sections of the FRA, the FRI, and other development funds (see Operating Chart Annex II).

The following is a description of the duties of the above listed agriculture-related sub-sections:

1) FRA Technical Analysis - Prepares technical reports and technical evaluations of loan requests, undertakes inspections, and presents technical advice. Some of the specific tasks performed are determination of costs of production and yield per hectare, collection and tabulation of statistics and projections of cultivation of crops, and coordination of agricultural plans of various entities.

2) Economic and Financial Analysis - Prepares economic and Financial Analyses of loan requests, prepares reports for the directors and credit reports, and performs inspections.

3) FRA Accounting - Performs all FRA bookkeeping, balances receipts and disbursements, prepares reports and disbursement requests to USAID/B, reviews credit drawdowns by banks, and prepares cash flow projections of the fund.

In addition to the centralized Development Division, the Central Bank has established five regional technical offices in the areas of greatest FRA activity - Santa Cruz, Cochabamba, Tarija, Potosí, and Sucre. The present staffing pattern for these field offices is as follows:

	Santa Cruz	Cochabamba	Tarija	Potosí	Sucre
Office Chief	1	1	1	1	1
Agricultural-Engineer	3	1	1	1	1
Agricultural-Economist	1	1	-	-	-
Clerical	1	1	1	1	1

The Central Bank intends to further expand these field offices, particularly in the areas of accounting and statistics.

5. Applicable Experience

The Central Bank has had extensive experience in external loan administration and in implementing refinancing operations such as the one envisioned under the project. For the purpose of the new project, its most applicable experience has been in administering the Special Fund for Economic Development (SFED), Agricultural Refinancing Fund (FRA), and Industrial Refinancing Fund (FRI). There follows below a brief description of the experience with each of these rediscount operations:

a. Special Fund for Economic Development

A.I.D. Loan 511-L-014 (COMIBOL) signed in March 1963 provided for the two-step amortization option whereby COMIBOL could fulfill its obligations under the Loan Agreement by making payment to the GOB in pesos with the Government making payment to A.I.D. in dollars on more concessionary terms. On April 30, 1965 a Payment Agreement was signed which stipulated that all payments received by the GOB from COMIBOL

would be deposited in a special account in the Central Bank to be used only for: "(a) payments to A.I.D. in accordance with the Payment Agreement for Loan 511-L-014 dated April 24, 1963, or (b) for Bolivian economic development purposes as may be mutually agreed in writing by the Government and the U.S.A.I.D." Subsequently, the Government issued Supreme Decree No. 07911 dated February 1, 1967 which established the Special Fund for Economic Development. The Decree stipulated that the resources of the SFED are to be made available to private and development banks for rediscounting (refinancing) private sector loans in the following areas:

1) Procurement of equipment, machinery, tools, etc. for industry.

2) The construction, completion, expansion or remodeling of houses and buildings (note that new building projects are not eligible).

3) Encouraging exportation.

4) Exploitation and export of minerals.

5) Development and improvement of agriculture and livestock production.

The same two-step option was included, and elected by the GOB, in the second loan to COMIBOL (511-L-029) and in a loan to ENDE, The National Electric Agency (Loan 511-L-031).

The Central Bank has been continually in charge of all refinancing activity under the Fund. USAID/B is provided with a monthly report which breaks down the operations by bank, by loan terms, and by field of activity. The total sub-loans outstanding as of September 30, 1974 totaled the peso equivalent of $5,759,927, while total loan disbursements from the fund through the same date totaled $19,339,079. At least 40% of the sub-loans are required to be made in agriculture.

b. Agricultural Refinancing Fund

The Central Bank was given the responsibility for managing A.I.D. Loan 511-L-042 and the loan agreement was signed in November, 1972. As discussed elsewhere, the FRA has had a marked impact on Bolivian agricultural production. The portion of the loan (7,850,000) designated for the FRA is now fully disbursed by USAID.

c. Industrial Refinancing Fund

The Central Bank also was given the responsibility for managing A.I.D. Loan 511-L-043, in the amount of $7,000,000, which, with a GOB contribution of $1,000,000, capitalized the FRI. The loan agreement was signed in September 1972. The FRI is a refinancing operation, with the Central Bank relending through the banking system to private companies for the creation, expansion and modernization of industrial enterprises. As of October 1974, the loan was 60% disbursed, with completion expected by the end of calendar year 1975. As of September 1974, the FRI had approved 130 sub-loans totalling $6,256,300 against which $4,567,000 had been disbursed.

4. Summary of Managerial, Financial and Technical Capability

The Central Bank's reputation among international lending agencies places it as the most reputable banking organization in Bolivia. It has built this solid reputation as a result of its policy to promote its personnel on the basis of their capabilities and academic achievements. The principal officers of the bank are individuals with many years of banking experience who have kept current with modern banking developments and practices through attendance at specialized courses related to money, banking and credit in various countries including Mexico and the United States.

As mentioned above, the Central Bank has created a specialized division for development projects. This division has operated in USAID financed projects with a spirit of professionalism and cooperation. Each of the officials acting in managerial capacities within this division carry many years of experience with the Central Bank and are experts in their fields which include Finance, Economics, Statistics and Engineering. They have also received special training abroad in evaluation of industrial and agricultural projects.

As certain deficiencies are noted in any area, such as procedures, personnel, responsibilities, etc., the division management takes positive steps to correct these deficiencies. The following are a few of the recent actions taken by management to improve the operation of the FRA loan activities.

a) A new Chief of the Development Division has been appointed. He is an efficient and long time employee with the Central Bank and has completed his studies of economics and accounting at the local university.

b) In the Technical Section of the FRA a new agricultural technician has been hired. Also a new agricultural economist is now filling a recently created position within the section.

c) The employees assigned to the administration of the FRA loan are working full-time on these projects and soon will have separate, independent offices located away from the Bank's general accounting and financial offices.

d) With the exception of one employee of the Operational Section, all employees have university degrees in Accounting or Economics.

e) An IBM punched-card accounting system for the recording and control of the FRA loan funds will soon be in operation. This new system will provide for better control of sub-borrowers' financial records. It will also provide control of loan repayment due dates.

f) The action on the recommendations made by the independent auditor in a recent audit has been slow. However, it is expected that by the end of the year all recommendations will be cleared.

g) The Central Bank, in conjunction with the Ministry of Agriculture, is now more actively planning credit allocations by crop and use.

Additional actions taken by management to improve the managerial, financial, and technical capabilities will be noted below in the section regarding actions taken on the USAID loan evaluation recommendations. Taken as a whole, we believe the Central Bank to be effective in the management of past USAID financed activities, and we are of the opinion that it will show itself to be capable of managing this proposed loan.

5. Corrective Action on Annual Evaluation

The Central Bank has taken positive action on most of the recommendations resulting from the latest annual evaluation of A.I.D. Loan 511-L-042. There follows below a summary of the major problems identified by the evaluation and the follow-up action taken to date:

1) Recommendation - Submission to A.I.D. of annual independent audit reports.

Action - The Central Bank contracted with an auditing firm during the course of the evaluation, and the report was submitted shortly after the recommendation was made.

2) Recommendation - Establishment of a coordination mechanism whereby prior to each major crop campaign, concerned agencies (e.g. the Central Bank, Ministry of Agriculture, Extension Service, Wheat Institute) would meet to discuss goals, time schedules, logistics and responsibilities for implementation of the campaign.

Action - These meetings are now being convened regularly, and the Ministry of Agriculture is more actively participating in credit planning.

3) Recommendation - Increase interest rate from 10% to 12%.

Action - By Supreme Decree, the interest rate was increased to 12%.

4) Recommendation - Resolve question of source of funds for repayment of A.I.D. loan.

Action - The Central Bank has prepared a draft Supreme Decree which would transfer to the National Treasury the responsibility for paying back the A.I.D. loan thereby keeping the FRA revolving fund intact.

5) Recommendation - Central Bank should allocate all available EFED resources to agriculture until 40% of the resources are in agriculture projects.

Action - The Central Bank has agreed and currently has a policy to this effect.

6) Recommendation - Addition of economic statisticians to the FRA Central Office.

Action - One statistician has been hired, and we have received a letter from the FRA stating its intention to hire others.

7) Recommendation - Establish deadlines for receipt of sub-loan applications.

Action - Two deadlines have been set (60 days for summer sowing and 45 days for winter sowing) and a policy booklet has been distributed with a schedule of specific deadlines.

8) Recommendation - Review ICI application formats and, where feasible, standardize them.

Action - Slow action is being taken on this recommendation, although a standard form has been designed for wheat sub-loans. The Central Bank has requested all ICI's to submit copies of their present forms for review.

9) Recommendation - Assign terminal disbursement dates on all sub-loans to automatically cancel those that are unutilized.

Action - In a letter to the USAID Director, the Central Bank Assistant Operations Manager agreed to institute such procedures with a provision for flexibility in unusual cases.

10) Recommendation - The Central Bank should institute procedures periodically to reconcile outstanding balances with ICI's.

Action - Quarterly reconciliation statements have been requested from all ICI's.

B. The Policy Environment

1. The GOB's Credit Allocation and Interest Rate Policy

a. Current Allocation of Credit

Prior to 1967 the use of agricultural credit was very limited with less than one million dollars being loaned annually. During that period agricultural lending was the exclusive province of the Banco Agricola de Bolivia (BAB). Since that time, however, other commercial banks including, the state owned Banco del Estado (State Bank) have moved into the agricultural credit market. The bulk of the credit expansion has been channeled through the BAB and the State Bank, which currently hold over 90 percent of the outstanding agricultural loans. In 1973 gross annual lending to the agricultural sector (including intra-year turnovers) was estimated at about $33.6 million of which [illegible] percent was placed by the BAB, 8 percent by the State Bank and the remainder being handled by private commercial banks.

In the period 1970 to 1974, it is estimated that total credit to the private sector increased at an average annual rate of 39% with credit to the agricultural sector increasing at an average annual rate of about 58%. At the end of 1973 total outstanding indebtedness of the agricultural sector was about $46.5 million compared to about $18.2 million at the end of 1970. (Note: Conversion

affected by devaluation). By mid-1974 credit liabilities of the agricultural sector had increased to about $62 million with the major share of the expansion being utilized for increased production of sugar, cotton, beef, rice and to a lesser extent potatoes and soy beans. Currently it is estimated that credit to the agricultural sector represents about 33 percent of total private sector credit availabilities compared to only about 21 percent in 1970.

A large share of the credit expansion over the 1970-74 period is attributable to infusions of external credit resources from international donors such as the IDB, IBRD, and USAID under the FRA program. Both IDB and IBRD have provided lines of credit for livestock production. As a result Agricultural Bank loans for livestock production increased by over 5 times in 1973 and current estimates indicate a further doubling or tripling of livestock credit during 1974.

In spite of the fact that the agricultural credit market has grown rapidly for both short term production credit as well as longer term investment, it is estimated that only between one and five percent of Bolivia's farmers utilize credit to finance agricultural production activities. Of the limited number of farmers who do utilize credit most have large commercial farming operations. The credit market is highly regional in nature with a significant concentration in the oriente where the major share of financing has been directed toward production and marketing of cotton, sugar cane, beef, rice and more recently soy beans. It is estimated that over 80 percent of all credit has been used to expand production of these crops over the last four years. The limited structure and lending policies of the commercial banking and credit system, the strong demand for export crop financing, and a general liquidity shortage have further contributed to the regional and commodity narrowness which currently characterizes agricultural lending. The result is that a relatively limited amount of credit has been channeled into the production of the more important food crops which are in short supply.

b. Central Bank Policy Instruments

The Central Bank has in the past used the following policy instruments to obtain particular macro and/or micro objectives: required reserves, marginal reserve requirements, rediscounts, selective portfolio controls and general portfolio controls. In addition, the Central Bank can use interest rates either in a rigid or flexible manner, but has chosen a rigid rate structure with little attempt to utilize interest rates as a means to allocate scarce financial resources. The basic argument normally put forward by the Central Bank for this position is

that the increased cost of borrowing would immediately be reflected in higher prices or more specifically inflationary pressures while not attracting adequate savings because of the overall low rate of domestic savings due to the low level of income.

The basic Central Bank policy instruments are discussed below.

i) Basic Reserve Requirements: These requirements apply to all commercial banks (including the State Bank) but with different levels based on the particular bank's nationality. Demand and time deposits are subject to differential reserve requirements.

National Banks:	
Demand Deposits	40%
Savings and Time Deposits	25%
Foreign Banks:	
Demand Deposits	45%
Savings and Time Deposits	30%

The impact on foreign banks of these requirements is generally small because of these banks' reliance on external funding which normally is channelled through their respective external offices (usually head offices or other subsidiaries of the same bank). Deficiency penalties are applied at the following rates: one-half percent from the first three, ten-day periods; two percent from the fourth to the sixth periods, and four percent from the seventh ten-day period onward. These penalties are applicable to the deficient amount. In general, the basic reserve requirement is the most comprehensive tool the Central Bank has to control global liquidity and total credit availability, although it does not influence inter-sectoral allocations.

ii) Marginal Reserve Requirements: The Central Bank has applied marginal reserve requirements (MRR) to prevent a rapid growth in liquidity and, to some extent, to redirect credit. A 100% MRR was imposed in January, 1974, on incremental deposit balances in order to reduce excess liquidity; two months later the requirement was lifted. Then, in June, 1974, it reimposed a 100% MRR on incremental deposits, but with the condition that 80% of the credit expansion of the commercial banks over average balances in June, 1974, be placed in specific agricultural crops. The purpose of this measure was to ensure that additional resources would be available to this sector as the Central Bank attempted to withdraw from its relatively low cost but highly expansive rediscount operations. In effect, this policy was oriented toward

restructuring the assets of the financial intermediaries and forcing these institutions to use their own funds to finance certain sub-sectors within the agricultural economy. It is still too early to analyze the impact of this policy.

iii) Rediscounting: Generally the Central Bank has followed a policy of rediscounting for selected productive activities. For example, it has rediscount lines for handicrafts, construction, housing, etc. from its own resources as well as from lines financed in part or in whole by external resources for the agricultural sector. Special lines exist for two public sector banking institutions to meet specific needs of these institutions (the State Bank and the Agricultural Bank). The rates charged vary but are generally low, making these facilities important sources of liquidity in the past two and one-half years. As of November 30, 1974, the Central Bank's outstanding discounts totalled $38 million compared to $6 million as of June 30, 1972. This particular mechanism is considered the chief means by which the Central Bank can alter credit allocations within or between the various sectors. The direction of the rediscount facilities is determined by the Central Bank's priorities. In the last year agriculture has become of very high priority, as demonstrated by the fact that over one-half of current discounts are directed toward the sector.

iv) Portfolio Controls: Aside from controls imposed on marginal increments of credit mentioned above, there exists a basic allocation requirement which forces banks to distribute credit among the productive and commercial sectors. Approximately 70% of a bank's portfolio must be in productive activities, as opposed to commercial or import financing. Portfolios are reviewed monthly (sometimes less frequently) by the Central Bank to ensure compliance. As a result, the share of credit for commercial transactions to total credit has declined rapidly since 1970. It is now 12%. However, due to the broad definition of productive activities, it is reasonable to assume that the impact on economic activity in favored sectors has not been great, particularly because the use of funds by the borrower is not subject to examination.

v) The Interest Rate Structure:

Present Structure

Type of Loan	Nominal Interest Rate/yr	Effective Rate 1/
General (Basically Agriculture)		
Wheat	10%	10.47%
Cattle, Coffee, Soya Cotton, Corn	13%	13.80%
Productive - Non-Specified	16% 2/	17.23% 2/
Commercial	22% 3/	24.36% 3/
Central Bank's Foreign Financed Facilities (except for wheat)	12%	12.68%
Agriculture Bank's Own Fund	13%	13.80%

From the point of view of resource allocation, the Central Bank's interest rate policies have been rigid - reflecting the fear of inflation and/or a slowdown in economic activities in the industrial sector where employment effects and union antagonism would be exacerbated. The GOB has considered in the past the possible use of a flexible interest rate policy to stimulate savings while permitting the rate structure to reflect more adequately the true cost of financial capital. However, the Central Bank felt that loan rationing through its portfolio controls would be more effective in obtaining the GOB's desired credit allocation objectives. Although interest rates as an instrument to attract savings have been sparingly used, the GOB has recently increased (in June, 1974) the interest rate paid on time deposits from 8% to 10%; and, to allow the banks to absorb this cost, the net return to banks on certain loans was increased by between 2% and 5% by reducing the national taxes imposed on loans.

The overall structure of real interest rates in Bolivia has in the past two years been increasingly negative. Moreover, the GOB has felt constrained to permit this deterioration even at the risk of increased capital flight. Indeed, the use of monetary correction

1/ Difference between nominal and effective rate reflects: a) quarterly compounding, and b) the use of compensating balances.
2/ Includes 1% national tax.
3/ Includes 7% national tax.

(indexing) is an idea that has floated and, in fact, is being utilized on sub-loans in the cattle sector under a World Bank/Agriculture Bank lending program. However, given the problems caused by indexation, it is unlikely that the GOB would accept such a measure on other operations. In any event, although there is insufficient data to estimate capital flight, the Central Bank and the IMF believe that in 1974 the level of capital transfers may have declined, reflecting in part increased investment opportunities financed from internal savings in mining and agriculture implying that other factors besides the interest rate may be as important in investment decisions -- particularly improved world markets for exports and a more rational internal price structure for agriculture commodities.

Inasmuch as this proposed loan is focused on only one sector of the economy and the entire interest rate structure is negative in real terms, the Mission considers it unreasonable to attempt to drive up the interest rate on sub-loans to the agriculture sector while leaving untouched the rest of the rate structure. The general weakness of the agriculture sector and fungibility of financial resources would probably lead to either slow utilization of our loan funds and/or complete non-utilization which would not accomplish the loan's objectives. Furthermore, it would discriminate against the smaller farmer who would be paying an interest rate higher than the larger farmers with access to the commercial market.

The Mission does recognize the need for a restructuring of interest rates should current inflation rates continue, but it does not seem feasible to attack this problem with the present loan. It is recommended that an interest rate of 13% be applied on sub-loans under this project. The 13% rate reflects the loan rates now provided to borrowers in the following categories: 1) coffee, soya, cotton, corn, sugar producers; 2) cattle raisers; 3) sugar refineries; 4) construction and improvements in the housing sector; and 5) non-traditional exports. Moreover, it is estimated by the Mission that inflation will probably average 10% per annum over the next five years, implying that a 13% average interest rate during the period should represent a real rate.

c. Implication of Increased Credit Allocations to Food Production

In Table 5 of Section I.C, the total credit requirements necessary to obtain the program goal production targets were estimated. As a condition for the loan, the GOB will be required to assure that adequate credit is channelled to basic foods production. Below the implications for such a credit allocation are considered.

During the 1970-1971 period, the banking system allocated annually approximately 3% of agricultural credit from its own resources for food production without special inducements. However, with the introduction of the FRA mechanism, allocations to the food sub-sector increased considerably during 1972, 1973, and, in particular, 1974. By the end of 1974, and largely as a result of the FRA, basic foods credit as a percentage of total agricultural credit equalled 11% (an increase from 3% in 1970).

The following table projects basic foods credit availability under three alternative circumstances: 1) total food credit in the absence of the loan, GOB contribution, and any GOB commitment to increase food credit allocations; 2) total food credit with the loan and GOB contribution but without any GOB further food credit allocation; and 3) total food credit with the loan, GOB contribution, and a food credit allocation in the magnitude required to meet the commodity production goals. The underlying assumption behind the calculations is that approximately 33% of total credit to the private sector will be allocated to agriculture over the next three years (equivalent to the ratio of agricultural credit to total domestic credit in 1974).

Under the first circumstance, the Mission projects a small increase in credit for basic foods over the next three years (about 6% per annum). Since total agricultural credit is expected to grow at an annual rate of 20% per year, this would imply that basic foods credit as a percentage of total agricultural credit would decline from 11% (1974) to 7% in 1977. In the second case, the proposed loan, combined with the Central Bank's funds (no reallocation commitment), and the expected natural growth in sub-sector lending, would imply an annual growth rate of 37% (increasing the food sub-sector's relative share of total agricultural credit from 11% in 1974 to 16% by 1977). However, to reach the production targets established under the program will require a reallocation of approximately $b 437 million (about US$ [illegible] million over the next three years). This implies an annual growth rate of 59% for basic foods credit, and that 25% of all projected agricultural sector credit and approximately 9% of projected total credit to the private sector will go to the food producing sub-sector by the end of the third year.

In comparison to other Latin American countries, this allocation goal does not appear overly optimistic. However, in the short run, the Central Bank would have to put primary reliance on its rediscounting facilities to ensure the reallocation. The Mission judges that this instrument, plus others available to the bank as described above, will be adequate to meet the project needs. The GOB has expressed concern over the food sub-sector's production levels, and as a result has given relatively high priority to the agricultural sector in the development plans of the country. As evidenced by the growth in agricultural rediscounts, the Central Bank monetary policy also is highly supportive of the sector. Therefore, the Mission concludes that the GOB has the policy instruments and the desire to obtain the goals for the sector.

DATES	TOTAL AGRICULTURAL CREDIT (INCLUDES FRA) A	DOMESTIC CREDIT FOR FOOD WITH OUT LOAN & COMMITMENTS B	TOTAL FOOD CREDIT WITH LOAN C	TOTAL FOOD CREDIT WITH LOAN & COMMITMENTS D	RATIO FOOD CREDIT/TO TOTAL PRIVATE SECTOR CREDIT WITH LOAN & COMMITMENTS E	B/A	C/A	D/A
	OUTSTANDING BALANCES (END OF YEAR) - (IN MILLIONS OF PESOS)							
1970	218.3	6.6	6.6	6.6		3%	3%	3%
1971	241.7	7.3	7.3	7.3		3%	3%	3%
1972	353.1	27.9	27.9	27.9		8%	8%	8%
1973	931.9	48.8	48.8	48.8		5%	5%	5%
1974	1,350.0	149.5	149.5	149.5	4%	11%	11%	11%
1975	1,709.0	158.2	228.2	318.2		9%	14%	19%
1976	2,023.0	167.6	307.6	438.2		8%	15%	22%
1977	2,420.0	179.5	385.5	602.2	9%	7%	16%	25%

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2. Agricultural Price and Marketing Policies 1/

Historically, marketing policy has been confined primarily to the use of price intervention mechanisms applied at various levels of the marketing structure through private sector institutions. These have been primarily in the form of ceiling prices charged consumers for a rather wide array of foods, and guaranteed minimum prices to producers for selected commodities which normally move through some capital intensive processing facility such as wheat, rice or sugar mills or which are exported.

Despite the GOB's attempt to support producer prices at the processor or exporter levels, the information available suggests that these efforts have been more successful in the case of rice, where direct purchasesat the farm level are made, than for other commodities where marketing outlet options are available and where assemblers or processors probably can exercise monopsonistic power.

For instance, statistics indicate that in the valley areas about 90% of the commodities moving off farms first move through the local fair mechanism with ownership changing at this point. Very few commodities are purchased at the farm. For the most part by the time the commodity reaches the point at which government price support mechanisms are operative, ownership may have changed more than once. Thus in the past producers have not often secured the full benefit of the price support program.

During the latter half of 1973 there was a sharp upward pressure on food prices as a result of: the GOB's attempts to maintain low consumer prices, which created speculative shortages, of external price changes for imported commodities, and of the growth in the volume of contraband. The GOB was unable to effectively contain ceiling prices at their specified levels. Rumors of an impending increase in ceiling prices further reduced supplies and increased hoarding (particularly sugar, rice, and flour) thus accelerating further the

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1/ This section draws heavily on four studies which were completed during 1974 pertaining to the impact of agricultural policy upon Bolivian agriculture. The first of these "Review of Agricultural Policy, Prices and Marketing Related to Proposed Sub-Tropical Land Development Project, Bolivia", by Louis F. Herrman, was concerned primarily with the impact of various agricultural policies on production opportunities in the small farmer sector in the Santa Cruz lowlands. A second study entitled "Mercadeo de Productos Agricolas Para El Productos", by Lloyd E. Jacobs, developed information on the structure and conduct of agricultural product markets for a number of important farm commodities. The third, "National Pricing Policy in Bolivia", by Jeffrey H. Allen, deals primarily with the historical review of national agricultural price policy through 1973. The fourth, entitled "Agricultural Price Policy in Bolivia" by B. Delworth Gardner, analyzed the impact of GOB price policies on producers and consumers for several major agricultural commodities. The latter two documents were devoted primarily to the impact of price policy upon quantities of food commodities produced.

upward pressure on prices. At the same time, the rural sector became more dissatisfied and vocal with respect to the disparity between the prices paid for consumption goods and farm price levels. The GOB became more conscious of the relationship between higher farm prices and increased urban food supplies, and began to recognize the positive benefit higher farm prices would have upon consumer supplies. The Ministry of Agriculture at that point assumed more active leadership in supporting higher prices to the producer in contrast to the position taken by the Ministry of Industry and Commerce in favor of maintaining low urban consumer prices. As food prices continued to increase, the GOB reacted by issuing Supreme Decree No. 11385 on February 28, 1974. This decree immediately increased both farm and retail prices for almost all basic food products which were being controlled; and permitted the free importation of several basic commodities including evaporated and condensed milk, powdered milk, yerba mate, peeled rice, polished rice, wheat flour, lard, edible oils, hydrogenated shortening, margarine, canned tuna, canned salmon and canned sardines. The intended purpose of this decree was to increase the supply of selected commodities relative to demand. While the above decree was a temporary policy designed to relieve the upward pressure on consumer prices, it was extended for another 180 days on September 28, 1974. The impact of these policies on selected food commodities apparently is having its intended impact of reducing contraband and bringing forth increased domestic supplies and reducing consumer prices.

Thus at present, GOB pricing policies do not appear to pose major constraints on agricultural production incentives nor on consumer demand for the basic food products which are the commodity focus of this project. Although the institutional framework for administrative control of prices at the producer, assembly, wholesale and retail level continues to exist, and controls are currently being applied to a number of commodities, presently established price supports at the producer level are adequate to cover average production costs for most producers, and do not appear to be irrational in terms of their relationships with relative prices in world markets. While no doubt a detailed analysis and rationalization of the entire price policy matrix would probably indicate some needed adjustments in producer price support levels, these would be of marginal importance in terms of their impact on producer incentives. To the extent that controlled prices are established at intermediate points in the marketing chain they are generally sufficient to cover real marketing costs, and do not appear to result in windfall gains to middle men. At the consumer level, although retail prices of many commodities have increased significantly over the past two years (reflecting the impact of world market trends) and have no doubt resulted in some shifts in consumption patterns, especially among low income families, the current level of administered retail prices is not seen as a limiting factor on the effective demand for basic food products which will be financed under the project.

Since current price support levels are not likely to result in serious resource misallocations, and given the GOB's recent willingness to adjust both consumer and producer price levels in response to market pressures, we conclude that price distortions are not, nor are they likely to become, serious constraints on the effective utilization of credit resources being made available under this loan. Moreover as the 1973-74 experience indicated, when price relationships become increasingly distorted with respect to the scarcity value of various commodities, it becomes progressively more difficult effectively to enforce an administered pricing policy. At that point, GOB attempts to intervene in the price matrix will be circumvented through increased private activity in the black markets, barter trade and contraband movements. In either case it is not likely that price policy alone will be a serious constraint to the effective utilization of funds provided under this project. In the end, the GOB is again likely to adjust prices to realistic levels or allow them to move freely.

While we should hope that the production increases being sought under this project will result in increased supplies and lower prices at the consumer level, a more realistic view is that prices will probably not decline (except as they may be influenced by world price levels) but rather the relative rate of increase in food prices will be slowed. In other words we should expect that, in the dynamics of Bolivia's current economic situation, equilibrium price levels to the consumer would be lower as a result of increased domestic output (assuming imports are stabilized at current levels) than would be the case in the absence of the project.

3. GOB Tax Policies

The Bolivian tax system has had little direct impact on the agriculture sector, either through export and/or import taxes. Tariff rates applied to most agricultural inputs have recently been reduced to minimum or zero levels. For example, fertilizers, herbicides, insecticides have a 0% tariff rate. Presently the import taxes on agricultural machinery inputs are exceptionally low in comparison to other Andean Pact countries. For example, large tractor imports pay 4.5% on CIF value. Thus, it would appear that tariff rates do not represent a major hindrance for imported agricultural inputs.

Internal transaction taxes do exist at the provincial level. These taxes normally apply to agricultural products produced within the province and transferred to other provinces. The rates are usually 3% or 4% on estimated value. This system of taxation is normally in lieu of land taxes, etc., and does not appear prohibitive. In addition, the National Road Service does charge a user's fee for road transport. These fees are normally 1 or 2 pesos per kilo of the cargo and again don't appear overly burdensome. The proceeds are used to maintain the road system which is

of direct benefit to the agricultural sector whose products move mainly by road.

Concerning exports, only coffee, sugar, cotton and meat are subject to taxation. Coffee and meat are subject to a 15% special export tax which was introduced in October, 1972 and applied against a value reflecting world prices for their grade of finish. On the other hand, cotton is subject to a graduated export tax scale reflecting world levels above a minimum price of $.30 per pound, with a maximum rate of 55% on the incremental value above the above minimum price. Sugar is subject to a similar tax schedule over a minimum price of US$.15 per pound. At present, the GOB is discussing the possibility of applying a similar structure to coffee and meat exports to replace the special export tax systems. No other agricultural products are subject to export taxes, and it is probable that no further extensions of the export tax system will be made unless other agricultural products become major export items.

The Mission concludes that the present tax structure does not impede efficient use of either local or imported inputs or penalize the agricultural sector vis-a-vis the rest of the economy.

C. Economic Analysis

1. The Demand for Credit

That credit is a constraint to increased agriculture production can be demonstrated by the experience with the previous FRA loan (-042). Under that project approximately $7 million in increased crop production was obtained from an estimated $3.7 million outlay for short-term production credit. Additional production increases are anticipated as a result of longer maturing investments made in production and marketing facilities for dairy, poultry, and swine enterprises, and from the incremental capital development which has occurred as a result of increased land habilitation financed through the FRA. These latter outlays amounted to about $3.5 million and, while returns are only now beginning to be generated, it is expected that rates of return will at least equal that of the short-term production credit inputs. In the absence of that project or some alternative credit source, it is unlikely that such an increase would have been achieved.

The rapidity with which FRA funds were placed, both in the large and small farm subsectors, is further evidence of a credit availability constraint. Credit funds provided under that program were fully disbursed one year ahead of schedule indicating a strong borrower demand. Moreover, amounts originally subscribed for and approved by ICI's at one point exceeded availabilities by as much as $4 million. Undoubtedly, this resulted in many other potential borrowers being discouraged from making loan applications.

In an attempt to develop a more quantitative measure of the demand for credit it must be recognized that we are dealing with a derived demand based on aggregate production and marketing requirements for food products and agricultural raw materials. The effective demand for credit will depend on a whole series of related factors including prices and availability of inputs, prices of outputs, interest rates, other credit terms and conditions, relevant technology and the structure and resource endowment of the production and marketing sector. A detailed analysis of the demand for credit would ideally require supply and demand projections for a number of commodities and an effort to relate those requirements to the resource base in some type of stimulation or optimization framework. In the absence of adequate data to develop such an analysis during the intensive review, the Mission has estimated the amount of agricultural credit which can reasonably be expected to be absorbed by the potential clientele for production of the basic food commodities within the context of the specific objectives of this Project. The following analysis develops an estimate of the short-term production credit needs of the target clientele based on previous experience and the Mission's best estimate of what the potential demand of loanable funds is likely to be.

Of the estimated 10,000-13,000 potential clients for funds to be provided under this Project, the typical borrower might be expected to borrow on the average about $1,000 each for short-term production credit to finance additional crop production. Some of course would obtain larger loans up to the maximum allowable amount of $2,000 for short-term production credit; others would require less.

The estimated average sub-loan of $1,000 is in line with the average amount per borrower which was lent from the small farmer line under Loan -042, and at the rate of about $135 per hectare (again reflecting Loan -042 experience) the typical or average borrower would be able to finance about 7 hectares of various crops with a loan of this size. While production costs, and thus credit requirements, are obviously somewhat higher now than previously, the present project also is directed at a somewhat different clientele whose average credit requirements should be less than the previous group of borrowers. With an average loan size of $1,000 as a norm, the potential demand for short-term credit from this group could range as high as $10 to $13 million annually.

Additional requirements for medium and longer term credit for capital formation also exist. Among the potential clientele the Mission estimates, based on previous FRA allocations of the small farmer credit, that approximately one third would be candidates for

longer term loans. These would be comprised mainly of farmers wanting credit for such things as land habilitation and clearing, cooperative development of small irrigation schemes, increasing livestock inventories or purchase of machinery. In view of the $5,000 limitation on total financing to a single borrower, it is estimated that the average loan size for such longer term credit would be about $2500 and would typically be for a period of about 4 years. This would suggest a demand for medium and longer term credit of approximately $2 to $2.5 million per year. Thus the maximum demand for credit by the target group - assuming all of the potential clientele were eager and ready borrowers - would range between $12 to $15 million annually.

The above amount, it must be emphasized, represents a maximum annual demand requirement under optimum price incentives, input availability, agroclimatic conditions, and borrower enthusiasm. Some borrowers may not wish or need to participate in the project every year. Others may borrow for less than maximum term and thus reduce demands for funds at a period in time. Still others may have access to alternative credit sources outside of the proposed financing. Given that most farmers in the target clientele group have had, to date, only limited experience in the utilization of credit, the Mission estimates that only a portion of these - probably from one-fourth to one-third - would come forth as successful loan applicants in the first year. This would indicate a total loan clientele of 3,000 to 4,000 in the initial year of the project. In subsequent years this number is expected to increase and reach a cumulative total of about 8,000-10,000 in the third year.

Accordingly, it is contemplated that this project will service only a portion of total needs of the potential clientele group indicated above, particularly in the first year. The disbursement schedule and cash flow analysis of Section II.D below propose a staged type of program which would satisfy about 25 percent of the potential credit demand of the target clientele in the first year increasing up to 75 percent by the third year.

2. Economic Feasibility

The conclusions that current economic relationships are favorable and that the target clientele will find it profitable to borrow money to finance increased output are illustrated in the following table.

Estimates of Profitability of Selected Crop Enterprises

	Wheat	Corn	Rice	Soybean	Potatoes
Average Variable and Overhead Production Costs (US$ per Ha.)	177	140	239	224	760
Average Output (MT per Ha.)	1.15	1.60	1.60	1.50	7.00
Market Price (US$ per MT)	228	190	260	238	206
Gross Returns (US$ per Ha.)	262	304	418	350	1,442
Net Returns (US$ per Ha.)	85	164	179	126	682
Ratio of Average Gross Returns to Variable Production Costs	1.48	2.17	1.74	1.56	1.90

The above estimates are based on unit budget summaries and input/output data developed by the Central Bank, Agricultural Bank and other GOB agencies for 1974. The technological coefficients which underlie the cost estimates are a composite which represent typical production practices among small farmers who have access to credit. Production cost estimates shown here are somewhat higher than what would be found on most small farms, particularly in the subsistence small farm sector. Similarly, assumed yield estimates reflect slightly higher expectations than the average for all of Bolivia, as those farmers who utilize credit of the type proposed here obtain higher than average yields. The returns are consistent with the first FRA experience.

Assumed output prices are based on current expectations of what will be received by Bolivian farmers over the next three years. The ratios of gross returns to variable production costs which are an analogue for a rate of return estimate appear to be within acceptable ranges for similar agricultural production activities involving other crops and in other countries. The Mission believes that these are reasonable estimates of costs and returns which may be expected to prevail for the prospective loan clientele throughout the life of the project.

While no specific unit budget data has been developed to determine the profitability of livestock enterprise, current price ratios in Bolivia strongly suggest that livestock activities yield even higher returns to limited factors of production than do crops. This conclusion is further supported by observed farmer behaviour in expanding production of livestock enterprises, especially in areas having access to major urban markets. Accordingly, it may be concluded that the project is feasible and will yield benefits over costs on the order of 1.5 or 2 to 1 depending on the credit allocation to alternative crop or livestock uses.

The above discussion of the feasibility of this project has concentrated on short-term production credit. Consideration also needs to be given to the capital goods and marketing credit components of the project. While insufficient data is available to establish firm estimates of the rate of return on capital goods investments, the demand for credit at the farm level for such things as irrigation pumps, sprayers, tillage equipment, harvesting machines, etc. all of which must be imported suggests high rates of return to such investments. For example, recent experience has indicated that campesino farmers in the Cochabamba valley would use credit for irrigation pumps and other longer term investments in preference to investment in fertilizer which under current factor/product price relationships provides a return in excess of 2.5 to 1. While the rate of return on investment capital goods must be considered on a project by project basis, it is the Mission's judgment that the credit provided under this category will generate returns even in excess of those indicated for short-term production inputs.

Further, with respect to the marketing credit category, and as is noted in the following section, investments in improved marketing facilities are expected to result in increased efficiencies and improved prices to both consumer and producer. While it is difficult to generalize about rates of return to marketing investments, we believe the loan criteria imposed by the banking system on prospective borrowers will insure the feasibility of projects for which this credit will be used.

3. Marketing Constraints

In view of the specific production increases which this Project seeks to achieve, it is appropriate to consider the adequacy of the marketing system and its ability effectively to distribute increased output to final consumers. A second and somewhat related question concerns whether factor markets are sufficiently responsive in supplying the additional production inputs required for the incremental agricultural production.

A more detailed discussion of these aspects of marketing is presented in Annex III entitled "The Adequacy of Markets and the Distribution System". The conclusions flowing from that analysis indicate that product markets are sufficiently resilient and for the most part have the technical and physical capacity to absorb production increases of the magnitudes which are contemplated. Assuming that production increases of 4-5 percent annually for the commodities in question can be achieved over the three year period, the aggregate marketings would increase by about 12 to 15 percent in the third year. The generally competitive nature of the product markets and the relative freedom of entry to the marketing system suggest that as output for most commodities increases, marketing intermediaries will come forward to channel the additional volume. Furthermore since, historically, product markets have been sufficiently elastic to handle well year to year fluctuations, which for some crops have reached 20 percent, it may be concluded that there is adequate absorptive capacity in the market system to handle the assumed production increases. The analysis further suggests, however, that efficiencies (i.e. lower marketing costs) could be gained through improved marketing infrastructure and investment in commercial marketing and storage facilities. Therefore, for the longer run, it is likely that further expansion of physical marketing and processing capacity will be needed.

Moreover, it is noted that processors and other market intermediaries lack working capital to finance large inventories of such commodities as soybeans and wheat and other products which are processed prior to entering retail sales channels. This has the effect of dampening demand for commodities at the farm level, and leads to greater quantities of commodities being stored on the farm. While many farmers no doubt have a preference to hold commodities rather than money as a hedge against inflation, this probably results in greater commodity losses within the system than can be justified by the limited protection against inflation.

A review of factor markets for the main productive inputs required for the commodities being produced under this project concludes that resource and input constraints are not likely to be limiting factors with respect to the production increases being sought. The findings indicate that the private sector is responsive to farmers' needs and will provide, either through domestic production or imports, the necessary production inputs. Importers, however, have a special interest in knowing before hand what volume of credit will be available, especially to the small farm sector, in order to forecast demand and place orders some 4-5 months before the inputs are required.

Since most of the labor inputs for the small farm sector are obtained from somewhat elastic family labor resources, labor is not seen as a production constraint. Where critical supplemental labor inputs are required, as in the case of the rice harvest in the Santa Cruz lowlands, the study concludes that this can be met from community or migrant labor supplies which are available to producers. Moreover, increasing mechanization of sugar and cotton harvesting is likely to decrease the demands for farm labor for these crops, thus releasing additional hands for employment in the small farm sector.

To further define and alleviate these problems, the GOB has decided to utilize $250,000 of its own contribution to the Project to undertake detailed studies of the marketing system for the crops addressed and to finance feasibility studies related to improved marketing needs and investment. An additional $1,000,000 of the GOB's contribution will match an equal amount of AID loan funds being provided for marketing and commercialization credit, and the capital goods credit category of $ 1 million can also be drawn upon to improve marketing. Thus, a marketing segment has been built into the project designed as a financing package to provide dollars for the importation of capital goods for processing (for the modernization, expansion, and investment in new facilities), to provide local currency financing of working capital (for the purchase of agricultural produce, storage costs, and the placement of processed goods on the market), and to provide long term financing for new processing or storage facility construction. The amounts allocated are based on FNA experience and discussions with knowledgeable Bolivians.

4. Potential Linkage Effects

This Project proposes to provide US$ 11 million in new funds (US$8 million form AID and US$3 million from the GOB) to finance investment by small farmers to increase production and marketing of specific crops. This input is considered as an autonomous injection of financial resources which will have an income multiplier effect on the economy. While linkages related to this income will be discussed and estimates of the coefficients will be made in order to estimate the potential impact of this loan, the lack of basic data precludes adopting a more sophisticated approach, i.e. input/output matrix.

An open economy such as Bolivia's with a rudimentary industrial base and a raw material export orientation implies that an autonomous inflow of investment resources will probably have a relatively low income multiplier effect on the economy chiefly due to import leakage effects. The IMF has estimated that the marginal propensity to import of the Bolivian economy may be as high as 0.4 to 0.5 per unit of income flow. In the farm sector the bulk of capital inputs such as machinery, insecticides, fertilizers and to lesser extent seeds and hand tools are imported. This suggests that even under the use of traditional agricultural techniques the minimum marginal propensity to import will be close to 0.2. Thus, the backward and forward linkages to the domestic economy which are connected with most expenditure flows are considered relatively weak in terms of their income multiplier effects.

In quantitative terms an incremental inflow of credit to the food producing sub-sector of US$ 35 million over the next three years would, using an income multiplier of 2.5 1/, imply an increased income flow in the economy of US$ 87.5 million. This income generation is equivalent to about 8% of the estimated GDP for Bolivia in 1973. Assuming an income elasticity of demand for food items of 0.6, this incremental income would generate approximately US$31.5 million in new food demand, equivalent to over 31% of the estimated agricultural sector's contribution to GDP. Furthermore, it is estimated that the population growth rate will be approximately 2.6% per annum over the near future, resulting in an additional demand for food. Finally, the FAO has estimated that the annual world demand for food products will grow at between 10% and 12%.

Although given the limited domestic industrial and manufacturing capacity and inter-sectoral linkages which are considerably weaker than most other L.A. countries, the Mission considers that prospective investment in agroindustries will strengthen the economy and tend to increase the income multiplier effect. This phenomenon would provide the employment and income effects necessary to the continuing growth of the economy. Overall, this loan, notwithstanding the substantial import leakage effect of new income flows, should generate sufficient internal aggregate demand to ensure the marketability of the new production.

1/ Assumes marginal propensity to consume of 0.6 and marginal propensity to import of 0.2.

5. Potential Employment Impact

For Bolivia as a whole, unemployment and disguised employment have been estimated to be 16% and 12%, respectively, for the 1971-1972 period. Disguised unemployment, although a problem for both urban and rural sectors, is more apparent in the rural agricultural sector; and is reflected in the low labor productivity, especially in heavily populated rural areas. Except during seasonal periods of peak labor demand (such as harvests and planting), the agricultural labor force tends to be relatively underemployed as other sectors of the economy are limited in their capacity to absorb this potential work force. In recent years, however, the Santa Cruz area has experienced transitional labor shortages, especially for the cotton harvest which has led to increasing efforts to adopt capital intensive technologies. The regional maldistribution of the labor force and the apparent increasing willingness of valley and highland populations to move to the eastern areas implies that the unemployment and disguised unemployment problems are not unresolvable.

The loan under consideration should provide increased employment opportunities under largely traditional technologies which would tend to reduce both disguised as well as direct unemployment. Efforts to increase output, either through cultivation of increased hectarage or through more intensive management of hectares currently in production, will result in increased requirements for labor inputs. Labor requirements of course will differ from enterprise to enterprise. For example, a crop such as potatoes has a higher labor requirement than, say, cereal grains, inasmuch as weed control problems in potatoes require regular weeding and hoeing. While cereal grains are not immune from weed problems, the labor requirements for their control is much less. Similarly harvest labor requirements for potatoes which yield 7 tons per hectare are greater than for wheat which may yield only 1 ton. Generally too, crop production is more labor intensive than are livestock enterprises.

Assuming that on the average an additional hectare in cultivation will generate a demand for about 40 man days of labor (based on data developed by the Central Bank, Agricultural Bank and MACAO sources) and that a total of 24,000 hectares will be required each year to obtain the production targets described earlier, it is estimated that about 960,000 man days of additional farm labor would be required each year. Additionally it is estimated that about 240,000 man days of labor would be needed to obtain the additional livestock output which is contemplated.

Some of this labor will of course be provided by greater use of family labor resources. We estimate that at least 20 percent of the

labor inputs for crop production and 80 percent of that for livestock enterprises would be thus provided. The remaining labor inputs would most likely be required at peak periods, and would result in seasonal rather than full-time employment. However, assuming that 300 man days will constitute the equivalent of a full time job, it is estimated that farm employment would be increased by about 2,700 full-time job equivalents each year. The above estimate includes only employment generations up to the farm gate level. It should be pointed out that, although not readily quantifiable, additional employment will also be generated at various points throughout the marketing chain as the additional production is transported, stored, processed and ultimately distributed for final consumption.

6. Income Distribution Impact

In viewing the overall economy, the Mission projects a real growth of 6% per annum over the next 3 years which is above the critical minimum growth rate of 5.5% considered by Adelman 1/ to be necessary to avoid a decline in the relative income share of the poorest 40% of the population.

With a continuation of present production patterns, the large commercial farm sector will probably show net income increases of 20-25% per annum over the next three years. In the absence of the Project and such programs as the Agricultural Sector Loan I the small farm sector will benefit very little either in absolute or relative terms from the overall sector growth. Unless greater access to credit and production inputs is facilitated, the small farmer will increasingly lag behind in terms of per capita income. This loan, although not geared to addressing directly the present problems in the income distribution structure, will increase the incomes of a segment of the small-farmer target group. The Mission believes that the potential production and productivity gains and the resultant income increases of the target small farmer will, therefore, result in a less inequitable income distribution than would be the case in the absence of the loan.

The target clientele being addressed by this loan has estimated off-farm sales of between US$1,[illegible]00 and US$2,000 per annum which represents between 40% and 50% of its total production. Average per family net cash income is approximately US$700 to US$1,000 per year, probably placing this group within the second or third quartile on the income distribution scale for the economy. While the target small farmer recipients of credit under this loan undoubtedly will increase off-farm sales and net income (perhaps by as much as 100%), this clearly should be viewed as a positive result even when compared to the more disadvantaged group which will not be addressed in this project. Even with a doubling of net income, the target farmers could in no way be considered "rural rich". Finally, the project must be viewed in conjunction with the Mission's other planned assistance programs which will address an even more disadvantaged segment of the small farm sub-sector in an effort to begin a process of technological transformation which is a necessary condition for their being able to earn increased income.

1/ "Reflections on Strategies for Equitable Growth", 1974; Paper Presented to the Annual Meeting of the Amer. Assoc. for the Advancement of Science

7. External Debt Servicing Capacity

Bolivia's debt service capacity will be reviewed in this section from the domestic savings and balance of payments points of view to determine the potential pressure on overall investment and foreign exchange availabilities.

The facts of Bolivia's debt situation, as of June, 1974, are as follows:

1) Outstanding disbursed debt is approximately US$ 757.1 million, of which US$ 13 million is local currency repayable.

2) Outstanding undisbursed debt is about US$ 262.9 million.

3) Of the outstanding disbursed debt, about 56% belongs to the central government, about 38% to the public enterprises, and the remainder to the specialized banking system.

4) The weighted average maturity of outstanding disbursed debt is approximately 11 years, while the weighted average for undisbursed debt is about 13 years.

5) Projected exports of goods for 1974 are about US$ 500 million (FOB).

6) Interest payments are estimated to be US$ 21 million and principal repayments to be about US$ 49 million in 1974.

7) The debt service ratio stands at approximately 14% of projected 1974 exports of goods.

8) Projected debt acquisition (based on preliminary current knowledge) should amount to US$ 78 million over the first semester of 1975 (from the end of November, 1974 to the end of May, 1975) with a weighted average maturity of about 15 years. It should be distributed as follows:

a)	YPFB	US$ 35 million
b)	Central Government	" 23 "
c)	Various	" 20 "
		US$ 78 million

9) The domestic savings ratio is estimated at 13% of GDP, while gross investment is estimated at 21% of GDP.

10) The GOB has instituted a number of reforms to control the acquisition of new external debt to ensure that priority projects are financed and that the debt service structure should not be overburdened with relatively short maturities.

A) The Balance of Payments:

In 1974 Bolivia benefited from a sharp improvement in the terms-of-trade for its major exports as well as for agricultural exports. This resulted in a sharp increase in net foreign assets of the Central Bank during the period. Export value indices for Bolivia show a 100% increase over the average for 1973. However, the comparable volume indices for mineral exports show a decline of about 5% compared to 1973. This latter phenomenon reflects the lack of adequate productive investments in the mining sector in prior years and a lack of exploration work to increase the amount of known reserves.

On the negative side, the Mission projects a partial reversal of the terms of trade as import prices continue to move upward at a rate faster than the expected price increases for Bolivia's exports. Another factor which could have a detrimental impact on Bolivia's exports would be a recession in its major trading partners' economies. However we should expect the latter to be short lived. The prevailing uncertainties for Bolivia's export prices in the short term may cause temporary problems, but given the expected long-term shortages of raw materials, we should expect export prices to trend upward over the foreseeable future. Thus over the longer time-frame the prospects for Bolivia's exports should be good if appropriate investments are forthcoming.

Projected Exports (FOB) and Debt Service Requirements
(Millions US$)

Year	Export (FOB)	Interest	Principal	Debt Service Ratio
1974	500	21	49	14%
1975	500	28	53	16%
1976	550	34	59	17%
1977	605	39	63	17%
1978	735	45	75	16%

The export (FOB) projection is based on the assumption of relatively stable world prices at 1974 levels, increased agricultural

export volumes in 1975 and thereafter, and increased mineral volumes (10%) starting in late 1976 reflecting increased investment in the public and private mining sectors which should bear fruit by late 1976. The year 1978 reflects an optimistic view that exports of petroleum in volume terms will expand as present exploratory work gives favorable results by 1976 and pipeline investments are initiated in late 1976 to provide higher exports in 1978. In general, however, the assumption underlying the above projections are reasonably conservative. The Mission does not foresee an unduly high debt service ratio. A debt service ratio of 20% would not be considered high in the short term if the type of projects being financed show internal rates of return of 15% or better which reflects a return higher than the interest costs of projects being undertaken by YPFB over the next four years. The present petroleum projects being financed or about to be financed with relatively high cost money appear to have internal rates of return of 20% or better. Infrastructure loans are concessional due to their lower immediate potential payback.

B) Domestic Savings

Of key importance to the repayment of external debt is whether the loan funds initially financed projects whose rates of return are greater than the cost of financing. This implies that the growth in the rate of savings would exceed the growth of debt servicing requirements, while simultaneously meeting domestic investment requirements. It appears that in the period 1972-1974 the investment ratio has reached 21% of GDP while domestic savings has financed 50% to 60% of the total. This would indicate an improvement over the 1968-1971 period when domestic savings financed approximately 45% of investment. There is some evidence to indicate that investment in agriculture and private mining is being financed increasingly from internal generation of resources, implying a higher savings ratio. Basic data to test fully this assertion are lacking but the evidence of increased economic activity would tend to corroborate the hypothesis. Assuming the GDP will grow at the average annual rate of 5% to 6% in real terms over the next five years, then it would appear that domestic resource requirements to meet external debt service requirements would be manageable.

Projected GDP* to Debt Service Ratio

Year	GDP (Millions of $b pesos)	Debt Service (Millions of US$)	Ratio
1974	14,969	70	9%
1975	15,667	81	10%
1976	16,819	93	11%

Year	GDP (Millions of $b pesos)	Debt Service (Millions of US$)	Ratio
1977	17,828	102	11%
1978	18,898	120	13%
1979	20,032	100	10%

* In Real Terms (based on annual 6% growth)

The need for concessional financing will continue over at least the next five years as the GOB attempts to increase both productive and infrastructure investments. The level of the savings gap implied by the investment aims of the GOB is estimated by the government's planning agency as being US$ 100 - 125 million per year, of which non-concessional borrowing may cover as much as 40%, leaving the bilateral and international donors to take up the remainder. Moreover, the Mission believes that any further hardening in the overall maturity structure of Bolivia's external debt would be detrimental to the country's development plans. At present, the Mission considers the present maturity structure acceptable from a debt servicing and prospective Balance of Payments points of view.

D. Financial Soundness

1. Summary Financial Plan

Utilization of Project Funds	Source (US$ millions) AID Loan	GOB Contribution	Total
Production Credit	6.00	1.00	7.00
Processing & Marketing	1.00	1.00	2.00
Capital Goods Imports	1.00	-	1.00
General Credit	-	0.75	0.75
Marketing Study	-	0.25	0.25
	8.00	3.00	11.00

Of the total project amount of $11 million, $10.75 million will be used for the purpose of creating a revolving credit fund in the areas of Production Credit, Processing and Marketing and Capital Goods. The AID loan will provide $ 8 million in capital for this fund, and the GOB will contribute $2.75 million. The remaining $250,000 will be spent on a marketing study and will not become part of the revolving fund. The entire cost of the marketing study will be financed by the GOB.

It should be noted that the ICI's will be able to discount only 80% of project costs of the categories: Processing & Marketing and Capital Goods Imports. The remaining 20% will be covered either by the sub-borrowers' own resources or the ICI's resources. Production loans will be fully discountable, however the ICI bears the credit risk.

2. Analysis of Foreign and Local Currency Costs

The following table presents the estimated cost breakdown between U.S. Dollar and local currency utilization of the project funds:

(US$ millions)

	U.S.Dollar Costs	Local Currency Costs	Total
AID Loan			
Production Credit	-	6.00	6.00
Processing & Marketing	-	1.00	1.00
Capital Goods	1.00	-	1.00
GOB Contribution			
Production Credit	-	1.00	1.00
Processing & Marketing	-	1.00	1.00
General Credit	-	0.75	0.75
Marketing Study	-	0.25	0.25
Total	1.00	10.00	11.00

The only anticipated direct foreign currency costs under this project will be the $ 1 million in loan funds allocated to capital goods purchases from the revolving credit fund. The remainder of the revolving fund will be used for small farmer borrowing for production working capital such as the purchase of seed, land preparation, land clearing, off-shelf procurement of small tools, etc., and for the construction of small processing and storage facilities, working capital for the purchase of farmers' crops by distributors, payment of non-family labor, etc. We have estimated that the off-shelf procurement included in the above activities will involve approximately 25% of the $10 million remaining, or $2.5 million, in purchases of imported shelf items.

The local contribution to the project is 27% of total project costs. The above mentioned sub-loan discount differential is not included as a local contribution in the computation nor are loan-042 reflows and sub-borrower contributions in the form of farmer labor. We have included only the $ 3 million in new cash to be contributed by the GOB to the project. The $ 3 million, the source of which will be the Central Bank, is significant, particularly given the fact that neither the GOB nor Central Bank made any cash contributions to the IRA under Loan -042. Annex V contains projections of reflows under Loan -042.

3. Disbursement Schedule

The proposed timing of disbursements is as follows:

(US$ millions)

Component	FY 1976	FY 1977	FY 1978	TOTAL
Production Credit	2.45	2.45	2.10	7.00
Processing & Marketing	0.70	0.70	0.60	2.00
Capital Goods	0.35	0.35	0.30	1.00
General Credit	0.26	0.26	0.23	0.75
Marketing Study	0.13	0.12	-	0.25
TOTAL	3.89	3.88	3.23	11.00

4. Cash Flow

Repayments on sub-loan disbursements will occur at different intervals, given the short-term/long-term mix of the various sub-programs. Nevertheless, it is estimated that sub-loan disbursements, once administrative costs and the deduction for the special fund improvement costs are made, will reach the annual level of $6.9 million by the fourth operating year. The following table gives an indication of what amounts would be available for the various items like sub-lending activity, payment of AID loan interest, operating expenses and improvement of operations. The table shows an increasing amount of cash available at the end of each year which would be available for further expansion of sub-lending to the target clientele. Regarding the Improvement of Operations line item, the Central Bank will utilize these funds for such purposes as program evaluation, sub-project evaluation, expansion of its regional offices, and technical assistance to intermediate credit institutions. To the extent that such funds are no longer needed beyond the three-year loan implementation period, they would be utilized for further capitalization of the small farmer fund.

With the projected availabilities for small farmer lending, and given the fact that the GOB will repay principal of the A.I.D. loan from general budgetary resources rather than the fund itself, the fund will be institutionalized as a source of credit to meet the continued needs of Bolivia's small farmers. Moreover, the GOB will covenant to provide beyond the disbursement period of the loan additional

BASIC FOODS PROJECT: CASH FLOW

(US$ 000)

	FY 1976	FY 1977	FY 1978	FY 1979	FY 1980	FY 1981	FY 1982	FY 1983
Cash on hand	-	55	[illegible]	150	440	650	810	977
Sources of Funds:								
AID Loan	2,[illegible]	2,[illegible]	2,[illegible]	-	-	-	-	-
GOB Contribution	[illegible]	[illegible]	[illegible]	-	-	-	-	-
Interest on Sub-loans	[illegible]	[illegible]	752	752	752	752	752	752
Sub-loans Repayments								
Short-term	-	2,127	[illegible]	6,085	6,085	6,085	6,085	6,085
Medium-term	-	252	504	718	718	718	718	718
Long-term	-	37	[illegible]	108	108	108	108	108
Total Sources of Funds	4,[illegible]	4,[illegible]	6,[illegible]	7,663	7,663	7,[illegible]	7,663	7,663
Total Funds Available	4,[illegible]	4,[illegible]	[illegible]	7,[illegible]	8,[illegible]	8,[illegible]	8,473	8,633
Uses of Funds:								
Sub-loans:								
Short-term	2,125	2,125	1,[illegible]	-	-	-	-	-
Short-term - Revolving fund	-	2,125	4,[illegible]	6,085	6,085	6,085	6,085	6,085
Medium-term	1,260	1,260	1,[illegible]	-	-	-	-	-
Medium-term - Revolving fund	-	252	504	718	718	718	718	718
Long-term	375	375	375	-	-	-	-	-
Long-term - Revolving fund	-	37	75	108	108	108	108	108
AID Loan Interest	96	112	160	160	160	160	160	160
Operating Expenses	96	150	216	216	216	216	216	216
Improvement of Operations	96	150	216	216	216	216	216	216
Total Uses of Funds	4,[illegible]	[illegible]	8,[illegible]	7,503	7,503	7,503	7,503	7,503
Cash Available at the End of the Year	55	370	910	440	650	810	970	1,130

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resources to the fund as necessary to meet sub-borrowers' demands for basic foods production. In this manner, fund decapitalization will be guarded against, and the small farmer sub-lending will be perpetuated into the future.

The following assumptions are built into the cash flow:

1. The interest spread to the fund of 7% is collected during the same year the sub-loan is made.

2. Interest due to AID of 2% is paid during the same year the disbursement is made.

3. Short-term sub-loans: 1 year
   Medium-term sub-loans: 4-6 years
   Long-term sub-loans: 10 years

4. No grace period is given for medium and long term loans.
5. Principal repayments are immediately re-invested in new sub-loans.
6. Operating expenses represent 2% of yearly outstanding sub-loan balances.
7. Improvement of operations has been computed at 2% of yearly outstanding sub-loan balances.

5. Justification for use of A.I.D. loan terms

As an exporter of metals, pretroleum and gas, Bolivia's foreign exchange earnings have increased substantially in 1974. This situation, however, does not mean that Bolivia's need for concessional assistance is less. If the expected foreign exchange gains were distributed equally throughout the population, per capita income, which was about $188 per year in 1973, would be increased by $10 and would still be very much the lowest in South America. Moreover, the increased foreign exchange earnings of 1974 will be needed to pay higher prices for imports and make income producing investments in the mining and petroleum sectors. The Mission projects a probable return to a current account deficit position in 1975.

Given the probable exceptional nature of Bolivia's current level of foreign exchange earnings, it would not be in the country's development interests to finance a substantial part of its investment requirements during the financial planning period by extensive foreign borrowing on medium or short-terms, nor should the international financial institutions restrict Bolivian access to more concessional terms and hence push the country toward an excessive debt burden counter-productive to development.

E. Other Considerations

1. Environmental Impact Statement

The subject loan will be used primarily to finance increased agricultural production and as such may involve the increased uses of agrochemicals such as fertilizers, pesticides and herbicides. To the extent that these substances may be utilized they are not expected to be used in sufficient concentrations, nor on such an extensive basis as to have significant adverse effects on the environment. Moreover the use of such materials would be subject to the GOB's laws regulating the use of such dangerous substances.

2. Relationship of the Project to the Role of Women

This project has no feature which would necessarily or specifically preclude the participation of Bolivian women nor restrict their access to project resources. The laws of Bolivia with respect to access to credit or indebtedness are not discriminatory on the basis of sex. In fact, a number of sub-loans made under Loan 511-L-042 were in favor of women. There is no reason to suspect that women, to the extent that they fall within the proposed target clientele, will not have equal access to project resources to the same extent and on the same terms as men. Since on many small farm enterprises the production and marketing of poultry, eggs and milk are the responsibility and in the hands of the women of the family, there will be some positive impact expected on the direct involvement of women in income growth at the small farm level.

SECTION III - LOAN ADMINISTRATION

A. Target Dates

The following plan indicates the sequence of actions which must occur in order to meet initial conditions precedent and other covenants of the loan and proceed with the implementation of the project in a timely manner.

Action	Target Date
1. Loan Authorization	December, 1974
2. USAID/GOB Loan Negotiation	Jan. - Feb. 1975
3. Sign Loan Agreement and Issue Implementation Letter # 1	March, 1975
4. Planning and Organizational Activities Related to Meeting Initial Set of Conditions Precedent (Including issuance of new directives, staffing additions, and completion of detailed implementation plan)	Mar.- May 1975
5. Conditions Precedent Met	May, 1975 (A)
6. First Disbursement	(A) + 1 month
7. Annual Evaluation	(A) + 12 and 24 and 36 months
8. Final Disbursement	(A) + 36 months

B. Procurement and Disbursement Procedures

Goods and services procured under the loan would have both their source and origin in countries included in Code 941 of the A.I.D. Geographic Code Book and Bolivia. By far the majority of the procurement effected under the loan would be for sub-borrower off-the-shelf purchases of needed inputs of small value given the sub-loan size restrictions. For any offshore purchases, appropriate reports will be required from the Central Bank concerning compliance with 50/50 shipping.

For any sub-loans involving the procurement of equipment and services from the United States, disbursements will be made through

AID's standard letter of commitment/letter of credit procedures. Requests to open letters of commitment will contain appropriate certification that the items listed are eligible for financing under the loan. All other AID disbursements to the Central Bank for eligible, refinanced sub-loans will be made on a reimbursement basis in local currency. Periodically, the Central Bank will submit to AID reimbursement requests listing their disbursements for refinanced sub-loans with eligibility certifications and supporting documentation. AID will then reimburse the Central Bank for approved expenditures from a U.S. Government owned RDO account.

C. USAID Monitoring Responsibilities

Primary USAID monitoring responsibility will rest with a Project Manager from USAID's Rural Development Division. He will chair a Project Committee including representatives of USAID's Offices of the Controller, of Capital Development, of Program-Evaluation, and, as appropriate, the Regional Legal Advisor. Frequent contact will be maintained with the Central Bank and its regional offices to insure full compliance with the Loan Agreement and Implementation Letters, and to identify and resolve any implementation or policy problems which may arise. Periodically, field trips will be made to spot check on sublending activity.

In addition, quarterly program planning sessions with the Central Bank, Ministry of Agriculture, and USAID will be held to discuss crop allocations and goals, time schedules, and logistics. Finally, annual review and evaluation sessions will also be held between Mission personnel and representatives of the Central Bank, Ministry of Agriculture, and participating Intermediate Credit Institutions to review program implementation matters and progress toward the attainment of the project purposes. Based on these meetings, an annual evaluation report will be submitted by USAID to AID/W.

D. Reports

The following reports will be required:

1. a monthly FRA portfolio status report showing cumulative authorizations, authorizations during the preceding month, cumulative disbursements, disbursements during the preceding month, monthly deobligation, and recuperations;

2. a monthly report on sub-loans broken down by crop and credit category (e.g. production, marketing, capital goods, etc.);

3. a quarterly FRA portfolio status report similar in scope to Report # 1 above;

4. a quarterly report on sub-loans broken down by Department and participating Intermediate Credit Institution;

5. a quarterly report on the term structure of the outstanding portfolio;

6. a quarterly report on extensions approved by FRA for Intermediate Credit Institutions - by crop and credit category;

7. a semi-annual schedule of recuperations and FRA cash flow projections;

8. a semi-annual report on sub-loan production results and marketing improvements;

9. an annual FRA portfolio status report;

10. an annual audit report, prepared by an independent auditor acceptable to AID, submitted yearly to USAID/Bolivia by the Central Bank.

Specific formats for the above reports have been developed and reviewed with the Central Bank (see Implementation Letter # 14, dated July 29, 1974, for AID Loan 511-L-042). Additional information useful for A.I.D. monitoring purposes will be contained in the Central Bank's request for reimbursement which indicates names of individual sub-borrowers, the size of their land holdings, and the amount and purpose of their sub-loans.

E. Evaluation Plan

The project and overall program will be evaluated annually starting approximately one year from the date initial conditions precedent are met. Progress will be measured against the indicators at the program goal, purpose, and output levels as contained in the Project Logical Framework, attached as Annex IV.

It is hoped that after the first year of project implementation we shall have enough project experience to test the validity, soundness, relevance, and practicability of the project design and its indicators of progress at all levels of the project. In addition, we hope to refine and add or delete target indicators as necessary and appropriate. Baseline data will further be developed and refined during the early stages of the project as part of the Central Bank's implementation plan to be submitted as a condition precedent.

Finally, evaluation should be facilitated by the work of the Central Bank's Implementation Unit in gathering and tabulating statistics related to the progress of the program. Some of the indicators which the unit is expected to utilize to evaluate the impact of the credit program are noted below.

1. Primary

   a. physical production
   b. yields
   c. net income to farmers
   d. on-farm employment

2. Secondary

   a. loan applications filed
   b. loans approved
   c. status of portfolio (disbursement, recuperations, extensions, defaults)
   d. area planted by crop
   e. import orders (fertilizer, seeds, etc.)
   f. sale volume of inputs
   g. import prices to farmers
   h. product prices to farmers
   i. storage capacity for crops addressed
   j. processing capacity for crops addressed
   k. on-farm capital formation
   l. value added on farms served.

Economic statisians will be added to the unit to carry out this function.

F. Conditions and Covenants

The following conditions and covenants would be included in the Loan Agreement:

1. As conditions precedent to the disbursement of any loan funds, the Borrower shall submit, or cause to be submitted to A.I.D., in form and substance satisfactory to A.I.D.:

a) a detailed Implementation Plan for the Project which shall include the following minimum elements:

i) quantitative production targets by year for the major commodities addressed by the Program;

ii) a production credit plan outlining how the credit needs of farmers falling outside of the project eligibility restrictions will be met as part of the overall strategy for obtaining the above targets;

iii) an evaluation plan including baseline data for measuring progress toward the attainment of the Project's purposes.

b) revised FRA directives to the participating financial institutions indicating the regulations and procedures to be followed by these institutions in making loans and otherwise administering funds made available under the credit program;

c) evidence of adequate staffing within the analytical unit of the Central Bank, including at least two economic statisticians to perform data gathering, analysis and monitoring functions;

d) evidence that the GOR's contribution of $3 million will be made in a timely manner.

2. In order to assure the fulfillment of the purposes of the Loan, the Borrower shall covenant that, except as Borrower and A.I.D. may otherwise agree in writing, it will:

a) contribute $3 million to the Project;

b) assure that the FRA is administered in accordance with the directives and other implementation procedures approved by A.I.D., and will make or permit no changes in such directives or implementation procedures governing the credit program without the prior approval of A.I.D.;

c) furnish to and review with A.I.D. annually, or at such other times as A.I.D. may request, such financial statements relating to the Project as A.I.D. may request;

d) assure that the cumulative outstanding balances of sub-loans refinanced under the Project to any individual sub-borrower do not exceed $[illegible],000 for short-term production credit and $5,000 for total credit; (for groups of farmers, these limitations will apply on an average per-farm family basis.)

e) assure that repayments of principal from sub-loans will be used only for the same general purposes as described for the project;

f) assure that the Central Bank will allocate to the agricultural sector at least 40% of the total resources available to the Special Fund for Economic Development during the period of project implementation;

g) assure that the [illegible] analytical unit of the Central Bank is maintained at a level in quality and quantity of personnel necessary to effectively implement the project;

h) analyze on a continuing basis pricing policies as they affect the commodities addressed by the Project and, where appropriate, take the necessary policy decisions to ensure greater production incentives;

i) repay principal on both A.I.D. Loan 511-L-042 and the new loan from general budgetary resources rather than the FRA itself, thus insuring perpetuation of the FRA mechanism;

j) assure the availability of credit resources to meet the basic foods production credit needs of farmers falling outside of the project eligibility restrictions;

k) encourage the participation of a wide-range of financial institutions in channeling credit for basic foods production and marketing;

l) assure coordination between the Central Bank and the Ministry of Agriculture in program planning and in the formulation of agricultural credit policy; and

m) assure continued additional financial support through the F.A mechanism to meet the basic food credit requirements of the small farmer target clientele beyond the disbursement period of the A.I.D. loan.

DRAFT
LOAN AUTHORIZATION

Provided from: Development Assistance Funds ("Food and Nutrition")
BOLIVIA: Basic Foods Production

Pursuant to the authority vested in the Assistant Administrator for Latin America by the Foreign Assistance Act of 1961, as amended, and the delegations of authority issued thereunder, I hereby authorize the establishment of a loan ("Loan"), pursuant to Part I, Chapter 1 of said Act to the Government of Bolivia ("Borrower") of not to exceed eight million United States Dollars ($8,000,000) to assist the Borrower in financing the United States dollar and local currency costs of making credit available through the Bolivian Banking System for the production and marketing of agricultural products ("Project"). The Loan shall be subject to the following terms and conditions:

1. Interest and Terms of Repayment

Borrower shall repay the Loan to A.I.D. in United States dollars within forty (40) years from the date of the first disbursement under the Loan, including a grace period of not to exceed ten (10) years. Borrower shall pay to A.I.D. in United States dollars on the outstanding balance of the Loan interest at the rate of two percent (2%) per annum during the grace period and three percent (3%) per annum thereafter.

2. Other Terms and Conditions

(a) Goods, services (except for ocean shipping) and marine insurance financed under the Loan shall have their source and origin in Bolivia and countries included in Code 941 of the A.I.D. Geographic Code Book. Marine insurance may be financed under the Loan only if it is obtained on a competitive basis and any claims thereunder are payable in freely convertible currencies. Ocean shipping financed under the loan shall be procured in any country included in A.I.D. Geographic Code 941.

(b) United States dollars utilized under the Loan to finance local currency costs shall be made available pursuant to procedures satisfactory to A.I.D.

(c) Prior to the initial disbursement or the issuance of any commitment documents under the Loan, Borrower shall submit to A.I.D., in form and substance satisfactory to A.I.D.:

(i) a detailed Implementation Plan for the Project which shall include the following minimum elements:

(a) quantitive production targets by year for the major commodities addressed by the Program;

(b) a production credit plan outlining how the credit needs of farmers falling outside of the project eligibility restrictions will be met as part of the overall strategy for obtaining the above targets;

(c) an evaluation plan including baseline data for measuring progress toward the attainment of the Project's purposes.

(ii) revised FNA directives to the participating financial institutions indicating the regulations and procedures to be followed by these institutions in making loans and otherwise administering funds made available under the credit program;

(iii) evidence of adequate staffing within the analytical unit of the Central Bank, including at least two economic statisticians to perform data gathering, analysis and monitoring functions;

(iv) evidence that the GOS's contribution of $3 million will be made in a timely manner.

(d) The Borrower shall covenant that, except as Borrower and A.I.D. may otherwise agree in writing, it will:

(i) contribute $3 million to the Project;

(ii) assure that the FNA is administered in accordance with the directives and other implementation procedures approved by A.I.D., and will make or permit no changes in such directives or implementation procedures governing the credit program without the prior approval of A.I.D.;

(iii) furnish to and review with A.I.D., annually, or at such other times as A.I.D. may request, such financial statements relating to the Project as A.I.D. may request;

(iv) assure that the cumulative outstanding balances of sub-loans refinanced under the Project to any individual sub-borrower do not exceed $2,000 for short-term production credit and $5,000 for total credit; (for groups of farmers, these limitations will apply on an average per-farm family basis);

(v) assure that repayments of principal from sub-loans will be used only for the same general purposes as described for the project;

(vi) assure that the Central Bank will allocate to the agricultural sector at least 40% of the total resources available to the Special Fund for Economic Development during the period of project implementation;

(vii) assure that the FRA analytical unit of the Central Bank is maintained at a level in quality and quantity of personnel necessary to effectively implement the project;

(viii) analyze on a continuing basis pricing policies as they affect the commodities addressed by the Project and, where appropriate, take the necessary policy decisions to ensure greater production incentives;

(ix) repay principal on both A.I.D. Loan 511-L-042 and the new loan from general budgetary resources rather than the FRA itself, thus insuring perpetuation of the FRA mechanism;

(x) assure the availability of credit resources to meet the basic foods production credit needs of farmers falling outside of the project eligibility restrictions;

(xi) encourage the participation of a wide-range of financial institutions in channeling credit for basic foods production and marketing;

(xii) assure coordination between the Central Bank and the Ministry of Agriculture in program planning and in the formulation of agricultural credit policy; and

(xiii) assure continued additional financial support through the FRA mechanism to meet the basic food credit requirements of the small farmer target clientele.

(e) The Loan shall be subject to such other terms and conditions as A.I.D. may deem advisable.