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Report No. P-3393-PE

REPORT AND RECOMMENDATION
OF THE
PRESIDENT OF THE
INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
TO THE
EXECUTIVE DIRECTORS
ON A
PROPOSED LOAN
IN AN AMOUNT EQUIVALENT TO US\$17.3 MILLION
TO THE
REPUBLIC OF PERU
FOR A
HIGHER AGRICULTURAL EDUCATION PROJECT

October 19, 1982

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CURRENCY EQUIVALENTS

The exchange rate is being adjusted daily roughly in line with the differential between domestic and international inflation. The exchange rate and currency equivalents in 1981 and as of September 30, 1982 were as follows:

	<u>Currency Unit</u> = Sol (S/.)	
	<u>Calendar 1981</u>	<u>September 30, 1982</u>
US\$1	S/. 426.60	S/. 792.77
S/.1	US\$0.0023	US\$0.0013
S/.1,000	US\$2.34	US\$1.30

FISCAL YEAR

January 1 to December 31

ABBREVIATIONS

- bpd = barrels per day
- ERP = Economic Recovery Program
- IDB = Inter-American Development Bank
- INIPA = Instituto Nacional de Investigacion y Promocion Agropecuaria
(National Institute for Agricultural Research and Extension)
- NAU = National Agrarian University
- RDI = Regional Development Institutes of the NAU
- USAID = United States Agency for International Development

HIGHER AGRICULTURAL EDUCATION PROJECT

LOAN AND PROJECT SUMMARY

Borrower: The Republic of Peru

Beneficiary: National Agrarian University (NAU)

Loan Amount: US\$17.3 million equivalent, including a capitalized front-end fee.

Terms: Repayable in 17 years, including four years of grace, at the standard variable interest rate.

Project

Description: The project would assist the NAU to improve its facilities and the quality of its courses and research activities and to expand its graduate program. The project would finance: (i) rehabilitation of the central campus, which was heavily damaged by a 1974 earthquake; (ii) instruction and research facilities for four of the five farms which comprise the NAU's regional development institutes; (iii) equipment for the central campus and regional development institutes; (iv) studies abroad at the graduate level for about 60 NAU professors; and (v) technical assistance to reorganize and strengthen the NAU's graduate agricultural economics program. The only special risk faced by the project is the possibility of future earthquake damage. To minimize this risk, antiseismic designs have been adopted and construction would be closely supervised by engineers experienced in seismic construction.

Estimated Costs (including about US\$1.4 million equivalent in local taxes):

	<u>Local</u> -----	<u>Foreign</u> <u>US\$ million</u>	<u>Total</u> -----
A. Rehabilitation/Expansion of Central Campus	13.2	5.9	19.1
B. Regional Development Institutes	2.4	1.3	3.7
C. Teacher Upgrading	-	2.3	2.3
D. Reorganization of Agricultural Economics Program	-	0.2	0.2
E. Project Coordination	<u>0.2</u>	<u>0.1</u>	<u>0.3</u>
<u>Base Cost</u>	<u>15.8</u>	<u>9.8</u>	<u>25.6</u>
<u>Physical Contingencies</u>	1.6	1.0	2.6
<u>Price Contingencies</u>	<u>3.8</u>	<u>2.8</u>	<u>6.6</u>
<u>Total Project Cost</u>	<u>21.2</u>	<u>13.6</u>	<u>34.8</u>
<u>Front-End Fee on Bank Loan</u>	-	0.26	0.26
<u>TOTAL FINANCING REQUIRED</u>	<u>21.2</u>	<u>13.8</u>	<u>35.1</u>
	=====	=====	=====

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Financing Plan:

	<u>Local</u>	<u>Foreign</u>	<u>Total</u>
	<u>US\$ millions</u>		
National Agrarian University	2.0	-	2.0
Government	15.8	-	15.8
Bank	<u>3.4</u>	<u>13.9</u>	<u>17.3</u>
Total	21.2	13.9	35.1

Estimated Disbursements:

Bank FY	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
	<u>US\$ million</u>						
Annual	0.5	2.5	4.5	4.6	3.8	1.1	0.3
Cummulative	0.5	3.0	7.5	12.1	15.9	17.0	17.3

Rate of Return: Not applicable.

Staff Appraisal Report: No. 3940b-PE of October 4, 1982

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

REPORT AND RECOMMENDATION OF THE PRESIDENT OF THE IBRD
TO THE EXECUTIVE DIRECTORS ON A PROPOSED LOAN
TO THE REPUBLIC OF PERU FOR A
HIGHER AGRICULTURAL EDUCATION PROJECT

1. I submit the following report and recommendation on a proposed loan to the Republic of Peru for the equivalent of US\$17.3 million to help finance a higher agricultural education project. The loan would have a term of 17 years, including four years of grace, at the standard variable interest rate. The government would transfer the loan's proceeds, on a grant basis, to the National Agrarian University (NAU).

PART I - THE ECONOMY ^{1/}

2. An economic report entitled "Peru-Major Development Policy Issues and Recommendations" (Report No. 3438-PE) was distributed to the Executive Directors on May 4, 1981. This part is based on the report's findings and on those of economic missions to Peru in June and September 1981 as well as in July/August 1982. Country data sheets are attached as Annex I.

Natural and Human Resources

3. Peru, the fourth largest country in Latin America, is divided by the Andes mountains into three distinct regions: the coastal region (Costa), with 46 percent of the population and most of the country's modern economic activity; the mountain region (Sierra) with 44 percent of the country's population; and the sparsely populated tropical rain forests east of the Andes (Selva). The country's rugged topography limits trade between the three regions.

4. Peru's natural resources include large deposits of minerals--particularly copper, iron, silver, and zinc--located mainly in the Sierra and the southern Costa. There are also large phosphate deposits, located in the northern Costa. Petroleum resources found in the jungle areas and offshore are also substantial, but their full extent has not yet been ascertained. Another major natural resource is the large fishing potential in coastal waters, although the magnitude of the catch is subject to sharp fluctuations. Only a small portion of Peru's total land area is arable, and most of the soils suitable for intensive agriculture are already being farmed.

^{1/} This part is substantially unchanged from Part I of the Public Sector Management Project President's Report of September 1, 1982 (Report No. P-3383-PE).

5. Although Peru's energy resource base is relatively diverse, with scope for expanding hydro and coal based power generation, petroleum is expected to remain the major energy source in Peru through the rest of this century. Peru's domestic oil production more than doubled between 1977 and 1981 to over 190,000 barrels per day (bpd), and it became a net exporter of about 60,000 bpd. To enable Peru to remain a net petroleum exporter, the Government has embarked on a strategy of accelerated secondary recovery and exploration efforts to increase production and of rational pricing policies to contain demand growth. Prices for domestically consumed petroleum products have been increased at regular intervals. In addition, new legislation was enacted offering special tax incentives to domestic and foreign investors, and the response has been positive. The Government strategy is already bearing fruit with petroleum output expected to increase in 1982 to an average level of 207,000 bpd.

6. As a result of three decades of rapidly falling mortality rates, Peru's population growth accelerated during the 1930-1960 period. Since the early 1960s, birth rates have fallen gradually, mainly caused by the urbanization process and improved education. But with declining death rates, population has continued to grow at about 2.6 percent p.a. and is currently estimated at about 17 million. The country's urban population is increasing at 4.2 percent p.a., and about a quarter of all Peruvians live in the Lima area. Given the structure of Peru's population, the labor force is expected to grow in excess of three percent per year during the next 20 years. Over the same time frame, it is expected that overall population growth will fall only slightly to about 2.4 percent p.a. unless an effective population control policy is adopted. The Government is conscious of the need to slow down Peru's population growth rate and is now supporting a family planning program.

Past Development Policies and Performance (1968-78)

7. Two successive military Governments, in office from October 1968 until July 1980, followed a development strategy aimed at promoting economic growth and improving distribution of income and wealth. The pattern of asset ownership in the economy changed drastically through nationalization and a sweeping land reform, but many of the policies carried out after 1968 had an excessive cost, and their implementation was inefficient.

8. Expansionary fiscal and credit policies between 1968 and 1977 produced strong inflationary pressures and widening external gaps. The current account deficit averaged US\$1.1 billion per year in 1974-77, equivalent to nearly nine percent of GNP. To finance this deficit, Peru accumulated a massive external debt, which at year-end 1977 stood at almost US\$8.4 billion (including short-term indebtedness), equivalent to two-thirds of GDP. In 1977-78 GDP per capita dropped by over six percent, and under- and unemployment rose from less than 50 percent during the early 1970s, to almost 60 percent of the labor force.

9. Between 1975 and 1977, several unsuccessful attempts were made to cope with Peru's deteriorating economic situation. By mid-1978 the economic crisis had reached grave proportions, with a drop in real GDP and inflation

approaching 100 percent on an annual basis. Moreover, the private sector was finding it increasingly difficult to open letters of credit for new imports, and the banking system's net international reserves had dropped to a negative level of US\$800 million.

10. Beginning in May 1978, the Government adopted a number of important measures aimed at strengthening public finances, improving the balance of payments and curbing inflation. The Government also negotiated a stand-by arrangement with the IMF in support of the stabilization program.

11. Major debt-relief operations carried out through the Paris Club and with the Soviet Union and commercial banks in 1978 enabled Peru to reduce the debt service burden for 1979 and 1980 by postponing repayment of about US\$1 billion to the 1982-1986 period. In view of the strong balance of payments performance in 1979 and 1980 (para. 15), the Government decided to forego parts of the rescheduling options in exchange for slightly better conditions for new loans from commercial sources.

12. To overcome the economic recession, in late 1978 the Government adopted a comprehensive Economic Recovery Program (ERP), which, in addition to the above-mentioned stabilization actions, included measures to open up the economy, promote non-traditional exports, strengthen the tax system by broadening its base, and generally improve the efficiency of resource allocation in the private and public sectors. These policy changes--together with a declining domestic market because of the recession--resulted in a major reorientation of industrial development, with a large increase in the value of manufactured exports from about US\$200 million in 1977 to the US\$750-800 million range in 1980-81 (equivalent to about eight percent of output). The Government also drew up a public sector investment program that aimed at redirecting investment towards projects of clear economic priority and with positive effects on production and employment. In support of the ERP, the Bank approved a US\$115 million Program Loan in May 1979.

13. The Government's stabilization-cum-economic recovery program resulted in a strong improvement in public sector finances in 1979. Public sector current account savings rose from -0.5 percent of GDP in 1978 to about 3.7 percent of GDP in 1979, and the overall deficit was reduced from 5.7 percent of GDP in 1978 to 1.7 percent in 1979. In spite of Peru's improved fiscal performance, inflationary pressures remained strong with a consumer price increase of 67 percent in 1979. The more careful management of public finances also had a positive impact on the balance of payments. Moreover, an increase in petroleum exports and a substantial improvement of Peru's terms of trade contributed to high overall surpluses of the balance of payments in 1979 and 1980. At year-end 1980, the net reserve position had improved to about US\$1.3 billion, equivalent to about four months of imports. Peru also made greater use of assistance from official bilateral and international sources, thus improving the structure of its external debt. Real GDP growth rebounded to 3.7 percent in 1979; in 1980, however, growth dropped to 3.1 percent owing, in part, to a drought which affected the agricultural sector. Because of a relaxation in fiscal discipline, the public sector deficit increased in 1980 to six percent of GDP, keeping inflation for the year at a high level--59 percent.

Recent Developments and Outlook

14. In July 1979, the military Government promulgated a new constitution, written by a popularly elected constituent assembly. Elections were held in May 1980, and following his electoral victory, President Fernando Belaunde was inaugurated on July 28, 1980. His Government faced a challenging economic and social situation with a number of acute problems which had been disguised by the apparently solid financial situation. These included: high levels of under- and unemployment, particularly in urban areas; higher underlying inflation than had been reported because of price controls and deferred price adjustments for public goods and services; a public sector deficit that had been reduced by freezing expenditures for economic and social services (including education, health and housing); a balance of payments with a substantial surplus, which, however, was partly due to unusually high commodity prices and to the fact that import levels were depressed and manufacturing exports high owing to the recession; and, finally, deteriorated income distribution over the past several years resulting in increased social unrest. This unrest has been manifested in a growing terrorist movement which, if it continues, may threaten political stability.

15. The Government named an economic team committed to economic efficiency, decontrol of the economy (including divestiture of some of the State-owned enterprises), promotion of the private sector (including foreign investment), and policies aiming at a more equitable sharing of the benefits of development through job creation and specifically targeted social programs. Its reliance on, and promotion of, private initiative, in particular, distinguish the present Government's philosophy and economic program from that of its immediate predecessors.

16. The Government has made important headway in a number of areas. It was successful in accelerating import liberalization by eliminating non-tariff barriers and lowering tariffs. At the same time, export incentives were streamlined and revised to eliminate abuse and make the system more responsive to exports of products with high manufactured content. The Government also enacted new legislation for the agricultural, mining and petroleum sectors offering greater financial incentives to investors. Finally, it made significant institutional changes in the financial sector, revised the interest rate structure through substantial upward adjustments, and is preparing a new banking law which would allow further rationalization and liberalization of the financial system.

17. In an effort to improve resource use, the Government made progress in correcting major price distortions. Food subsidies were greatly reduced and most controlled agricultural prices were adjusted to international levels. The marketing of agricultural products was liberalized, and public utility and petroleum prices were adjusted at regular intervals. Moreover, the Government endeavored to rationalize public investment and its financing--an effort that was supported by a Bank sponsored Consultative Group meeting in May 1981.

18. The above efforts were complemented by measures to strengthen public sector institutions. The important public enterprise sector, for example, was granted greater autonomy by transforming these enterprises into State-owned limited liability corporations operating under private law. This measure gives these companies, *inter alia*, greater freedom in fixing staff compensation and, thus, helps them to recruit or to retain capable personnel. Many of the above measures have already had positive short-term effects, and they have laid the ground for medium-term structural adjustments of the Peruvian economy.

19. In 1981, GDP grew at about four percent. The balance of payments, however, deteriorated substantially as a result of declining export prices, high interest rates on the country's debt with commercial banks, and a rapid expansion of imports. The loss in net reserves amounted to about US\$580 million, equivalent to about 2.5 percent of GDP. A major factor in the deterioration of the balance of payments was the large public sector deficit which reached about eight percent of GDP. On the positive side, some progress was achieved in reducing inflation: while inflation on a December 1980-December 1981 basis reached 73 percent, during May-December 1981 it decelerated to an annual rate of about 50 percent, mostly because of the openness of the economy, the price dampening effects of an increase in imports, and--to some extent--to a deceleration of the mini-devaluations. During 1982, inflation is expected to reach 60 percent (which was also the average rate during the first five months of the year). The Government is aware that this level is still too high, however, and is following restrictive demand management which it expects will result in a further drop in inflation.

20. Reducing the public sector deficit has, once again, become the major challenge facing Peru's economic managers. While the deteriorated export situation has had a negative impact on tax revenues, the 1981 deficit was mostly the result of steep increases in expenditures and somewhat lagging adjustments of petroleum and rice prices. Excess expenditures over initial budget allocations were incurred mostly for investment projects of lesser priority. To tackle the difficult public finance situation, the Government is following a restrictive financial program for 1982 with tight credit ceilings and limits to foreign indebtedness. The Government also trimmed the public investment program in line with its investment priorities. The Bank has an ongoing and frank dialogue with the Peruvian Government on these issues. Moreover, in June, 1982 the IMF approved an SDR850 million compensatory-cum-EFF arrangement to support Peru's stabilization efforts. In spite of the difficult world economic environment, a slowdown in economic growth (projected to be about two percent in 1982) and increasing social tension, the Government is striving to adhere to the agreed-upon program and to make the necessary adjustments in fiscal management to keep the economy viable over the medium term. Peru's total debt outstanding to the IMF as of June 30, 1982 amounted to SDR776.8 million.

21. Based on cautiously optimistic assumptions with regard to economic management, through the medium term the country is expected to have economic growth of about 4-5 percent per year and a manageable balance of payments

situation. Peru's balance of payments could, however, become precarious if the exportable surplus of oil declines. While measures are being undertaken to speed up petroleum exploration and to increase manufactured exports, the results of these endeavors may not come in time to countervail the potential foreign exchange shortfalls. Against this background, there is a continuing need for official development assistance, including local cost financing. Taking the above factors into account, considering an expected debt service ratio hovering around 35 percent of exports (which are relatively diversified) and assuming that the authorities continue the initiated course of economic policies, Peru is creditworthy for Bank lending.

PART II - BANK GROUP OPERATIONS IN PERU

22. The Bank has approved 51 loans to Peru for a total amount of US\$1,312.5 million, net of cancellations. About 28 percent of the Bank's lending to Peru has been for transportation (mainly highways and ports), 16 percent for agriculture, 25 percent for the energy sector, 14 percent for mining and industry, about seven percent for education and urban development, nine percent for a program loan in support of the ERP in 1979 and one percent for technical assistance.

23. Annex II contains a summary statement of Bank loans and their disbursement status as of September 30, 1982 and notes on the execution of ongoing projects. As of this date, US\$661 million was undisbursed. Disbursements on Bank-financed projects moved slowly in the late 1970s, primarily because of weak project execution capacity and a shortage of counterpart funds that worsened as the economy deteriorated during this period. Disbursements have improved, however, with vigorous efforts by the Bank and Government to correct the situation by, inter alia, (i) opening a Bank resident mission in Peru; (ii) restructuring a number of slow moving projects; (iii) Government provision of adequate counterpart funds; and (iv) Government creation of a special commission to monitor loan execution and resolve administrative problems. These actions are bearing fruit. Disbursements on project loans amounted to US\$44 million in FY80, US\$70.5 million in FY81 and US\$75.8 million in FY82. This compares with average yearly disbursements of US\$27.5 million during FY77-79.

24. The main objectives of Bank lending to Peru are to assist in (i) the creation of the physical infrastructure needed to sustain and foster economic development; (ii) the expansion of productive capacity in crucial sectors, i.e., petroleum, agriculture and mining; (iii) the strengthening, through technical assistance loans and regular operations, of public sector management and of local capacity to prepare, implement and operate projects effectively; and (iv) the improvement of living conditions for the urban and rural poor. In the past, Bank lending concentrated on infrastructure in the transportation and power sectors. More recently, the Bank's emphasis has shifted to more directly productive fields--mining, petroleum, agriculture and industry--to help Peru to strengthen its balance of payments. Lending for social sector projects has also grown and will be further stepped up in

the future. The next operations that would be ready for the Executive Directors' consideration include projects in rural development, health, and primary education. As part of its assistance strategy, the Bank convened a Consultative Group Meeting for Peru on May 25-26, 1981 to help the Government arrange financing for its public investment program.

25. Bank loans constituted an estimated 6.4 percent of Peru's total public external debt outstanding and disbursed at the end of 1981, and absorbed about 3 percent of the country's public external debt service in 1981. Assuming increased recourse to long-term bilateral and multilateral aid by Peru, the Bank's share in the country's outstanding public foreign debt by 1985 could reach about 10 percent, and its share of debt-service would be around 4.5 percent.

26. IFC commitments as of September 30, 1982 were US\$55.8 million (including US\$15 million to the Southern Peru Copper Corporation for the Cuajone Copper Mining Project) of which US\$18.9 million is held by the Corporation. A summary statement of IFC investments as of September 30, 1982 is presented in Annex II. In addition, a palm oil and a polymetallic mining project were recently approved, and a venture capital company is now being considered.

27. The other principal lending agencies active in Peru are the Inter-American Development Bank (IDB) and the United States Agency for International Development (USAID). Their total commitments as of December 31, 1981 were US\$849 million and US\$348.8 million, respectively, and their shares of public debt service as of end-1980 were estimated at 0.6 percent and 0.5 percent, respectively. In its future lending, IDB is expected to emphasize lending for agriculture, industry, mining, roads, and small scale irrigation. USAID is expected to stress rural development and health.

PART III - THE AGRICULTURE SECTOR AND HIGHER AGRICULTURAL EDUCATION

The Agriculture Sector

28. Peru has a limited natural resource base for agriculture. Of a total area of 1,285,000 km², only about 3.7 million ha or 2.9 percent is arable and 17 percent is natural pastureland. Additional land could be brought into production only by expensive new irrigation works or by investing in infrastructure to open up new areas, mainly in the Ceja de Selva, the jungle highlands east of the Andes.

29. The agricultural sector in Peru underwent a major decline during the 1970s. Severe land and water constraints were in part responsible for this, but the primary cause of poor performance was negative government policies. These included: (i) an agricultural pricing policy which did not provide adequate incentives to producers; (ii) imposition of an inefficient marketing system run by the State; (iii) failure to effectively organize and

manage agrarian reform enterprises; (iv) insufficient credit and the dismantling of extension and research support services for the sector; (v) a requirement that food crops be grown in place of non-food export crops (e.g. cotton); (vi) insecurity of land tenure owing to a far reaching land reform; (vii) the concentration of public investment in large-scale coastal irrigation projects with long gestation periods; and (viii) failure to support agriculture sector educational and training institutions, so as to insure that they had the teaching staffs and equipment necessary to produce well-trained professionals.

30. The agrarian reform program, which was enacted in June 1969, had a negative impact on agricultural production. By February 1980, 11.6 million ha of land (about 48 percent of the total land in agriculture in Peru) on about 16,500 farms had been expropriated by the Government under the program. About 8.9 million ha was distributed to about 400,000 families, almost a quarter of the country's rural population. The balance of expropriated land remains under state control for possible future adjudication, forestation programs or other public use. Although about eight percent of distributed land was adjudicated to individual families, most large estates were distributed intact to various forms of cooperative enterprises. During the 1970s, the military Government concentrated most of the financial and manpower resources available to agriculture on the agrarian reform program. Credit went largely to the cooperatives and the public research and extension service was dismantled to provide manpower for the reform process. Also, instability of land tenure caused a fall in investment levels, and expropriation forced many technically and managerially sophisticated farmers to leave agriculture. These factors, coupled with poor organization and management and the lack of cooperative spirit in the new agrarian reform enterprises, were an important cause of declining agricultural production.

31. The combined results of these negative factors were that food production increased by only 0.7 percent per annum in the 1970s while population increased at an annual rate of 2.9 percent. Nutritional standards suffered and the country's dependence on imported food increased. Food imports grew at 20 percent per annum in the 1970s. Furthermore, agricultural exports fell dramatically. The volume of agricultural exports in 1980 was only 22 percent of its 1970 level, and in 1980-81 the deficit in the balance of trade in agricultural commodities totaled about US\$300 million.

32. Since the late 1970s, successive Governments have recognized the gravity of these problems and taken corrective measures. Consumer price subsidies borne by farmers have been reduced or eliminated, and the requirement that food crops be grown has been eased. Also, the Government has required improved management of cooperatives as a condition of providing them with assistance and credit. In 1980, an agricultural promotion law was passed which: (i) concludes the expropriation process of the agrarian reform; (ii) provides selective tax incentives to investment; (iii) permits the private import and export of most agricultural products and inputs; and (iv) opens up marketing to private participation (although some restrictions still remain). Furthermore, the Government has reorganized and is strengthening its research and extension service with assistance from a recent Bank loan (Ln. 2150-PE of June 1982) for the National Institute for

Agricultural Research and Extension (INIPA). However, no concrete measures have yet been taken to reverse the results of past neglect of higher agricultural education which has led to a deterioration in the technical qualifications and the managerial capacity of agriculture-related professionals.

33. The measures taken thus far to stimulate agriculture, together with the ending of the drought in 1980, have had a significant beneficial impact on agricultural production. Preliminary figures indicate that agricultural output grew by over 12 percent in 1981 and a further five percent increase is expected in 1982.

Demand for Higher Agricultural Education Graduates

34. The availability of high quality professionals trained in agriculture-related fields will be required if the Government's efforts to revitalize the sector are to be successful. It is estimated that by 1990, a total of about 11,000 professionals will be needed to satisfy demand in the sector. About 7,000 professionals were working in 1980, and only about 1,000 will retire during the 1980s since the workforce is relatively young. The average annual demand for high-level professionals in the 1980s is, therefore, expected to be about 500. Approximately 20 percent of this number, for the more demanding positions in research, extension, public administration and university teaching, should be professionals with post-graduate level training. Qualified personnel will be needed in the following areas:

- (i) Cooperative Farms. The staff of the 2,000 cooperative farms, mostly established under the agrarian reform, lack management capacity and technical expertise in agricultural practices and marketing. As a result, production has fallen from pre-reform levels, particularly on the large cotton and sugar cooperatives on the coast, and the latter face serious financial difficulties. These problems, together with Government pressure to improve (para. 32), have motivated the cooperatives to seek professional management.
- (ii) Private Farms. About 5,000 farms of a size large enough to fully occupy a professional farmer remain after the completion of the agrarian reform. With recent changes in agricultural policy (para. 32), the climate for profitable operation of these farms is now favorable, but technical expertise is required to take full advantage of their productive capacity.
- (iii) Research. The differences in climate, topography, and hydrographic conditions between Peru and the countries that traditionally engage in basic research and provide improved agricultural inputs call for a significant increase in the level of experimentation and adaptation of these inputs to local conditions.

- (iv) Agricultural Extension. The system for transmitting research results to individual farmers and rural communities was practically destroyed during the 1970s. Currently, efforts are underway to rebuild it using the Training and Visit system. This approach emphasizes regularly scheduled visits by trained extension workers and the provision of feedback to researchers. It, therefore, calls for significant numbers of high level supervisors and subject-matter specialists. In northern Peru alone, where the Bank-financed agricultural research and extension project (Ln. 2150-PE) is being initiated, incremental professional staff required will number about 150 and demand will grow as this system is implemented throughout Peru.
- (v) Public Administration. Retiring Government personnel must be replaced with highly qualified new entrants, and the qualifications of existing personnel need to be upgraded through postgraduate studies, especially in management and agricultural economics.
- (vi) Agriculture-Related Activities. Banks extending agricultural credit, commercial firms selling agricultural inputs, and firms and organizations involved in marketing require professionals with technical and economic backgrounds.
- (vii) University Teaching. The majority of teachers in agricultural programs offered by universities need to upgrade their basic knowledge and research ability, mainly through postgraduate studies at the masters level.

The Higher Agricultural Education System

35. Overview. Peru has 37 universities (25 public and 12 private), 14 of which are located in Lima. Total university enrollment reached 223,000 in 1979. Agricultural programs are offered by 19 universities (all public), four of which are located in the Lima area. Total enrollment in such programs was about 20,000 in 1979. Graduate agricultural studies are offered only by the National Agrarian University (NAU), whose main campus is located at La Molina outside Lima. About 200 students are currently enrolled in its graduate program.

36. During the 1970s, enrollments in university agricultural programs increased at an annual rate of 15 percent, almost double that of total university enrollments. Growth was much slower, although still too high, at the two best quality institutions, the NAU (7.2 percent p.a.) and the veterinary medicine program at San Marcos University (5.7 percent p.a.). Because of the high rate of growth in overall enrollment, the total number of graduates per annum from university level agricultural programs increased from about 800 in 1978 to about 1,200 in 1981, but quality declined because the growth of teaching staff and facilities did not keep pace with enrollment.

37. The quality and number of teaching staff varies significantly between universities. The average student/teacher ratio is above 20, with several universities having ratios as high as 40. The NAU has the best ratio with 12 students per teacher. Only at the NAU and the Universidad Agraria de la Selva do more than 20 percent of the teachers hold advanced degrees. The quality and availability of equipment also varies greatly between programs, especially with regard to agricultural machinery and laboratory equipment. The NAU and the veterinary medicine program at San Marcos are among the better equipped institutions.

38. Universities have made some important contributions to agricultural research, with the NAU and the veterinary medicine program at San Marcos by far the leaders in this field. At most universities, however, research programs are weak. As a result, students are deprived of the creative environment that research activities generate and much of the academic program is irrelevant to Peruvian problems.

39. The proliferation of universities offering agricultural programs and the rapid enrollment growth in these programs together with inadequate teaching, facilities, research programs and equipment has negatively affected the quality of graduates and their opportunities for employment. Growth in undergraduate enrollments and number of graduates has been more than double that estimated as necessary for the sector. This is not true, however, of post-graduate studies where the number of high level professionals must be greatly expanded. One objective of the proposed project is to assist in this.

40. The National Agrarian University. The NAU, which is an autonomous public institution, was founded in 1901. It currently has an enrollment of about 3,600 students (including post-graduate students). The NAU provides instruction in most agriculture-related discipline (e.g., agronomy, agricultural engineering, animal husbandry, food industries), as well as in fisheries, forestry and social sciences.

41. In contrast to most other universities, the NAU has been able to keep enrollment growth at a relatively low rate and obtain much higher public funding per student than other agricultural programs. While the NAU has, thus, maintained an acceptable level of teaching, there has been some decline in quality, as described below, because of a loss of teachers and a lack of adequate equipment and facilities.

42. About 100 professors left NAU in the face of the country's economic and political problems during the 1970s, and the proportion of professors with advanced degrees fell from 46 percent in 1975 to 40 percent in 1981. As a result, the present qualifications of the teaching and research staff are below the standards set by the University, particularly for implementing a planned expansion of the graduate program and developing much needed basic and applied research activities.

43. The situation regarding the buildings which house teaching and research activities at the central campus is even more serious. In 1974, a severe earthquake destroyed many of the NAU's classroom buildings, teachers'

offices and research facilities and seriously damaged the library. Most of the buildings still standing had to be evacuated and temporary installations, still in use today, were put up. Teachers and students have had to use these inadequate accommodations to the detriment of the quality and effectiveness of teaching and research. The principal objective of the proposed project is to remedy this problem.

44. The NAU has been able to provide its academic departments and research programs with some modern equipment through donations by various international sources and purchases under bilateral government agreements. This equipment, however, constitutes only a part of that required to fully meet the needs of the academic and research areas. Also, some equipment currently available is un- or under-utilized because of lack of appropriate space for its installation. The proposed project would provide the additional equipment required by the NAU and facilities to adequately house equipment.

45. NAU's undergraduate study program shows some weakness in training students in the practical application of their knowledge, and is insufficiently oriented towards the problems of subsistence farmers. Also, the quality of the undergraduate and graduate level economic programs is unsatisfactory and the graduate program is strongly oriented towards "pure" research at the expense of analyzing problems taking into account their socioeconomic context. The NAU is now taking steps to solve these problems, mainly through a review and revision of curriculum content, which started in 1981. Upgrading of the economics program would be supported under the proposed project. An important approach to making its program more practical is NAU's plan to utilize five currently operating farms (four donated by the state and one purchased by NAU) in the three main ecological zones of Peru (Costa, Sierra, and Selva) as Research Development Institutes (RDIs). These would be used for teaching last-year undergraduate students in a "real-world" environment, providing research facilities to NAU professors and graduate students for basic and applied research, achieving initial multiplication of improved products and inputs developed by NAU researchers, and providing extension services to the surrounding professional and farming communities. Facilities on four of these five farms would be improved under the project. The NAU is currently developing the other farm with its own resources.

46. Strategy for Strengthening Higher Agricultural Education. In the medium term, the Government's policy is to strengthen the NAU as the only feasible alternative for providing the high level professionals, including those with graduate level training, required for the success of efforts to revitalize the agricultural sector. Aside from the NAU, a few isolated study areas in other universities are also of acceptable quality. Over the longer run, the Government should seriously consider building up the quality of two or three regional universities around these study areas. The benefits to be obtained from creating an adequate regional network of agricultural faculties would be relevance in teaching and research obtained from close contact with the problems of the surrounding communities, and the contribution that a prestigious university can make to regional development.

37. The quality and number of teaching staff varies significantly between universities. The average student/teacher ratio is above 20, with several universities having ratios as high as 40. The NAU has the best ratio with 12 students per teacher. Only at the NAU and the Universidad Agraria de la Selva do more than 20 percent of the teachers hold advanced degrees. The quality and availability of equipment also varies greatly between programs, especially with regard to agricultural machinery and laboratory equipment. The NAU and the veterinary medicine program at San Marcos are among the better equipped institutions.

38. Universities have made some important contributions to agricultural research, with the NAU and the veterinary medicine program at San Marcos by far the leaders in this field. At most universities, however, research programs are weak. As a result, students are deprived of the creative environment that research activities generate and much of the academic program is irrelevant to Peruvian problems.

39. The proliferation of universities offering agricultural programs and the rapid enrollment growth in these programs together with inadequate teaching, facilities, research programs and equipment has negatively affected the quality of graduates and their opportunities for employment. Growth in undergraduate enrollments and number of graduates has been more than double that estimated as necessary for the sector. This is not true, however, of post-graduate studies where the number of high level professionals must be greatly expanded. One objective of the proposed project is to assist in this.

40. The National Agrarian University. The NAU, which is an autonomous public institution, was founded in 1901. It currently has an enrollment of about 3,600 students (including post-graduate students). The NAU provides instruction in most agriculture-related discipline (e.g., agronomy, agricultural engineering, animal husbandry, food industries), as well as in fisheries, forestry and social sciences.

41. In contrast to most other universities, the NAU has been able to keep enrollment growth at a relatively low rate and obtain much higher public funding per student than other agricultural programs. While the NAU has, thus, maintained an acceptable level of teaching, there has been some decline in quality, as described below, because of a loss of teachers and a lack of adequate equipment and facilities.

42. About 100 professors left NAU in the face of the country's economic and political problems during the 1970s, and the proportion of professors with advanced degrees fell from 46 percent in 1975 to 40 percent in 1981. As a result, the present qualifications of the teaching and research staff are below the standards set by the University, particularly for implementing a planned expansion of the graduate program and developing much needed basic and applied research activities.

43. The situation regarding the buildings which house teaching and research activities at the central campus is even more serious. In 1974, a severe earthquake destroyed many of the NAU's classroom buildings, teachers'

offices and research facilities and seriously damaged the library. Most of the buildings still standing had to be evacuated and temporary installations, still in use today, were put up. Teachers and students have had to use these inadequate accommodations to the detriment of the quality and effectiveness of teaching and research. The principal objective of the proposed project is to remedy this problem.

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Previous Bank Operations

47. In order to help spur Peru's agricultural development, the Bank has made 13 loans to Peru totalling US\$219 million. A number of performance audits have been done for these projects and point out deficiencies related to the lack of trained professionals. The Performance Audit Report (Sec M81-465 of June 2, 1981) for the fifth agricultural credit project (Ln. 933-PE of 1973) concluded that the project's rate of return exceeded that estimated in the appraisal report (30 percent vs. 26 percent). It noted, however, that the project suffered from the deterioration of the research and extension services in the 1970s. Two loans (Loans 114-PE of 1955 and 418-PE of 1965), totalling US\$24.4 million, financed irrigation works and land settlement in the San Lorenzo area within the Chira-Piura basin. The Performance Audit Report (SecM 78-43 of January 18, 1978) for the San Lorenzo project concluded that the project achieved its basic goals of increasing production and income but would have been more successful with better management and agricultural support services. The recently approved US\$40.6 million Agricultural Research and Extension Loan (Ln. 2150-PE of June 1982) is designed to address these shortcomings by helping to rebuild Peru's research and extension services. In addition, the project recommended in this report would complement this operation by strengthening the NAU--the main source of high quality agricultural professionals.

48. The Bank's participation in Peru's education sector has been limited so far to one loan (949-PE of FY74 for US\$24.0 million) to finance the construction of 12 post secondary and 26 basic education centers, institutions considered as the principal building blocks of the 1972 education reform. The project has suffered significant delays (see Annex II for more detailed information) but was completed in June 1982, except for preparation activities for a second education project, which are expected to be finished early next year.

PART IV - THE PROJECT

49. This project was identified by the Bank in July 1981. It had been prepared with financial assistance from IDB. Appraisal took place in March/April 1982. The appraisal mission's report, entitled "PERU - Staff Appraisal Report of a Higher Agricultural Education Project" (No. 3940b-PE dated October 4, 1982), is being distributed separately. Annex III contains a supplementary project data sheet. Negotiations were held in Washington on September 15-16, 1982. The Peruvian delegation was headed by Mr. Henry Harman, Director of Public Credit of the Ministry of Economy, Finance and Commerce.

Project Objectives and Description

50. The project aims at increasing the contribution of NAU's study programs and research activities to current efforts to accelerate the development of Peru's agricultural sector by improving the NAU's facilities and quality of instruction. The project would consist of:

- (a) the repair, rehabilitation and expansion of teaching and research facilities at the main NAU campus near Lima;
- (b) the construction and equipping of facilities on four farms in various regions of Peru, which comprise part of NAU's Regional Development Institute system;
- (c) studies abroad for about 20 NAU teachers for Ph.D degrees, 40 NAU teachers for M.Sc. degrees and short upgrading courses for 60 teachers;
- (d) about two staff years of technical assistance services to upgrade NAU's agricultural economics department; and
- (e) project coordination activities.

51. Rehabilitation/Expansion of Central Campus. This component would account for about 75 percent of project costs. Teaching and research facilities at the La Molina campus, which were heavily damaged by the 1974 earthquake, would be rebuilt, repaired and/or expanded according to a master plan prepared by the NAU. This plan is satisfactory to the Bank. Administration buildings, although somewhat damaged, are adequate and would not be improved under the project. Upon completion of the proposed project, the rehabilitated campus would have teaching facilities for about 4,500 undergraduate and 500 graduate students as compared with enrollments of 3,400 and 200, respectively, in 1981. This would allow room for reasonable growth in enrollment through the mid-1990s. In order to ensure that academic quality is maintained while meeting sector demand for well-trained professionals, the NAU would limit growth in undergraduate enrollments during the period of project execution (between 1982 and 1988) to an average rate per annum not exceeding two percent, taking as basis the enrollments during 1981 (Section 2.08 of the draft Project Agreement). Graduate enrollments would, however, grow more rapidly--by eight percent p.a.--to meet the projected demand for professionals with high-level qualifications in managerial, teaching, research, and supervisory technical positions. Facilities would also be provided for all research areas, with the exception of cereals and milk and feedstuff processing, which are adequate at present.

52. Equipment and furniture for both teaching and research areas would be included in the project as would internal roads, landscaping and a sewerage network. The library would also be enriched with additional books, periodicals and necessary equipment. Equipment included in the project would be additional to expected donations from bilateral sources and to Government commitments to equip NAU through bilateral purchase agreements. The value of equipment from these sources is estimated at about US\$2 million.

53. Facilities for Research and Instruction in NAU's Regional Development Institutes. This component would represent about 14 percent of total project cost. It would include buildings and equipment in four of the five farms which comprise the NAU's RDIs, and which will provide field teaching

and research facilities (see para 45). Undergraduates included in the RDI program would spend two months each in the RDIs located in the Costa, the Sierra, and the Selva, for a total of six months before graduation. Instruction in the RDIs would be offered on the basis of existing curricula, but it is expected that curricula will be eventually modified to incorporate experience gained under the new program.

54. The bulk of physical investment would take place at the Jauja (Sierra) and Satipo (Selva) RDIs, to provide adequate living facilities for the participants. The planned site for the Costa (at Canete close to Lima) would receive more limited investment, since students would be bused daily from Lima to Canete. Investment would also be modest at the Tarapoto RDI (Selva) since it is intended to be used mainly for research, rather than as a resident instruction facility. The operating expenses of the RDIs are expected to be covered by the net income from the sale of improved products grown on the farms. The functioning of the Institutes would not, therefore, add to NAU's recurrent costs.

55. Teacher Upgrading. This component would represent about nine percent of total project cost. It would consist of an accelerated program of teacher upgrading in order to offset the loss of teachers/researchers during the 1970s. The program would finance studies abroad for about 20 NAU teachers for Ph.D. degrees and about 40 for M.Sc. degrees. Graduates of the program would be obligated, under current regulations, to remain in NAU for a period at least twice as long as their studies. The NAU would select candidates for participation in this program in accordance with criteria satisfactory to the Bank (Section 2.09 of the draft Project Agreement). The criteria which have been agreed upon are whether the candidates' proposed course of study is in a subject area: (i) where there is a planned expansion of post-graduate studies (only teachers with M.Sc. and/or Ph.D. degrees teach graduate courses); (ii) where there is a need to fill vacancies in departments that have suffered losses of personnel; or (iii) which is a priority research area for NAU.

56. The proposed program is additional to ongoing studies under various bilateral agreements. When teachers under all programs have finished their studies, about 30 percent of NAU's projected teaching staff would have M.Sc. degrees and 18 percent Ph.D. degrees. These percentages correspond fairly closely to the distribution of staff qualifications that NAU has traditionally sought on the basis of analyses of functional needs for teachers and researchers at various levels of responsibility and seniority. Since current regulations obligate staff on campus to take over the teaching and research load of colleagues away on scholarship programs, the proposed upgrading program does not imply an increase in NAU's operating budget while the training program is underway. At the peak of this program, about 15 percent of NAU's teachers would be abroad for training. This is less than in past periods of intensive training activity and, based on such experience, it is expected that the NAU would continue to function effectively during the training program.

57. Improvement of the Agricultural Economics Program. This component would absorb about one percent of project cost. The services of one or two high level specialists would be contracted for about 24 staff-months to reorganize (in collaboration with NAU authorities) the graduate agricultural economics program. These services are estimated to cost US\$8,000 per staff-month (including travel and subsistence). The objective of this component is to increase the practical relevance of the program and improve the capacity of participants to undertake applied economic research. Reorganization would involve redesigning (where necessary) the study program, teacher upgrading through postgraduate studies, and (if necessary) hiring new personnel. Reports and recommendations of the specialist(s) would be furnished for comment to the Bank not later than 30 days after their receipt by NAU and the NAU would exchange views with the Bank on these recommendations (Section 2.10 of the draft Project Agreement). If the specialist(s) so recommends, a foreign university would be contracted to provide support for the economics and planning department in the areas of curriculum design, preparation of course bibliographies and short visits to the foreign university by NAU personnel.

58. Project Coordination. This would represent about one percent of project costs and would consist of NAU's administrative expenses in executing the project (e.g. project coordinator's office, travel).

Project Costs and Financing

59. Total project cost (including US\$1.4 million equivalent in taxes) is estimated at about US\$34.8 million equivalent, of which US\$13.6 million or 39 percent represents foreign exchange costs. Physical contingencies are estimated at ten percent of base costs. Although the main campus of the NAU is in a seismic area, the design of the facilities takes this into account, and careful construction supervision should largely eliminate the risk. Higher physical contingencies are, therefore, not required. Price contingencies are estimated at approximately eight percent in 1982 and 1983, seven and a half percent in 1984, seven percent in 1985 and 1986, and six percent in 1987 and 1988. Local cost contingencies have been calculated in US dollar equivalents on the assumption that variations in the exchange rate would compensate for the difference between local and international inflation. Estimates for construction costs are based on final designs, construction specifications agreed upon with a consulting firm contracted by NAU, and price estimates as of end-August 1982. Furniture costs are derived from prices at the local market, and equipment costs from price catalogs of foreign manufacturers. Teacher training costs are placed at US\$43,000 for Ph.D. and US\$29,000 for M.Sc. students.

60. Total financing required for the project is US\$35.1 million, including a US\$255,665 front-end fee. The proposed Bank loan of US\$17.3 million would cover about 50 percent of project costs, including all foreign costs and US\$3.4 million in local costs. It would also cover the capitalized front-end fee. The proposed Bank financing of local costs is justified by: (i) the importance of the project in assuring the supply of the highly trained manpower that will be required to carry out the Government's development strategy for the agricultural sector; and (ii) the current fiscal and

balance-of-payments difficulties faced by Peru. The balance of local costs would be financed by the Government (US\$15.8 million equivalent) and the NAU (US\$2 million equivalent). To facilitate project execution, up to US\$250,000 of retroactive financing be made available for expenditures incurred after April 1, 1982 for the design of civil works, teacher upgrading, expert services, and project coordination.

Project Execution

61. The carrying out of the project would be the responsibility of the NAU, which has appointed as project coordinator a staff member whose qualifications are acceptable to the Bank. The coordinator, who would report directly to the NAU's Rector, has been freed from his academic duties in order to work full time on project implementation. The NAU would continue to employ a project coordinator whose qualifications, experience and terms and conditions of employment were satisfactory to the Bank throughout the period of project execution (Section 2.02 of the draft Project Agreement).

62. NAU's academic departments (each in its field) would provide technical expertise for (i) preparing detailed furniture and equipment lists and specifications; (ii) the review and analysis of the bids for procurement; and (iii) supervision of delivery and installation of furniture and equipment. The academic departments would also be responsible for selecting candidates for the teacher upgrading program.

63. NAU's Directorate of Accounting and Finance, operating under the authority of the NAU's tenders committee, would be responsible for the practical details of procurement of civil works, goods and equipment and for project accounting. This Directorate has broad experience in the procurement of goods and equipment and is satisfactorily staffed for purposes of handling its proposed project responsibilities. A consulting firm, to be contracted by NAU, would review and analyze the bids for construction, and would supervise the construction of new facilities, and the remodeling and repair of existing ones. All consultants and experts employed under the project would possess qualifications and experience satisfactory to the Bank and be hired under terms of reference acceptable to the Bank (Section 2.03 of the draft Project Agreement). The project is expected to be executed over a period of six years (July 1982 - June 1988). Although the construction work at the main NAU campus is not complex, it must be phased to avoid interrupting the normal operations of the university, and thus will require a longer than normal time to complete.

64. The NAU's budget from the Government would have to be increased to cover the additional recurrent costs that would be generated by the project. These are on the order of US\$1.9 million p.a. at 1981 prices, or about 20 percent of NAU's 1981 operational budget. Four fifths of the costs of operating the RDIs (about US\$0.5 million p.a.) are not included in the above figure as they are expected, conservatively, to be covered by the RDI's own income.

Procurement and Disbursement

65. Civil works contracts are expected to total about US\$23 million equivalent. Contracts for new buildings valued below US\$1 million would be awarded on the basis of local competitive bidding (LCB) under procedures which are acceptable to the Bank and do not preclude foreign firms from participating in the bidding. Contracts estimated to exceed US\$1 million would be awarded on the basis of international competitive bidding (ICB). The NAU would make the maximum use of packaging of civil works contracts. On this basis, about US\$15 million is expected to be procured through ICB and US\$8 million through LCB. Repairs and remodeling would be done under force account by the NAU because classes would be operating and equipment is contained in these buildings, and great care would thus be required in construction work. Disbursements for repairs and remodeling would be done against statements of expenditures submitted by NAU.

66. Furniture and equipment in the amount of US\$4.4 million would be procured mainly through ICB. Equipment which cannot be grouped into packages exceeding US\$200,000 would be procured through LCB up to a total of US\$500,000. Equipment which cannot be grouped into packages exceeding US\$20,000 would be procured through local shopping up to a total of US\$200,000. Under these procedures, about 85 percent of the equipment would be procured through ICB, ten percent through LCB, and five percent through local shopping. In comparing local and foreign bids, local manufacturers would be given a margin of preference equal to the prevailing duty rate or 15 percent of CIF costs of imported goods, whichever were lower. Manufacturers from countries of the Cartagena Agreement (or any other regional trade group satisfactory to the Bank, of which Peru is a member) other than Peru would be given a margin of preference over other foreign manufacturers equal to the difference in import duties charged by Peru, or 15 percent of CIF costs of imported goods, whichever is lower.

67. Disbursements for eligible expenditures under the Bank loan would be made against: (i) 35 percent of total expenditures for civil works; (ii) 100 percent of foreign expenditures for imported furniture and equipment, and 80 percent of total expenditures for goods purchased locally; (iii) 100 percent of total expenditures for training abroad and technical assistance; (iv) 40 percent of expenditures for project coordination and 100 percent of expenditures for related travel abroad; and (v) 100 percent of the Bank's front-end fee.

68. Central Government agencies in Peru have experienced difficulty in executing the civil works components of Bank financed projects in the past because they sometimes have not had the funds needed to pay contractors promptly while waiting to be reimbursed by the Bank. In order to permit more rapid provision of funds, the Borrower would establish, on terms and conditions satisfactory to the Bank, a dollar-denominated special account in the Banco de la Nacion into which funds from the proposed Bank loan would be advanced (Section 2.02(b) through (f) of the draft Loan Agreement). This account would consist of an estimated three months of Bank disbursements for civil works at any time (about US\$400,000). The Government, for its part, would, by June 30, 1983, establish a revolving fund--in the Banco de la Nacion and on terms and conditions satisfactory to the Bank--which would be

used for payments to the civil works contractors from counterpart funds. This revolving fund would consist of not less than two months payment needs and would be replenished by the Government with its counterpart funds and withdrawals from the Bank-funded special account each time a payment is made (Section 3.01(c) of the draft Loan Agreement). The Bank's initial deposit in the special fund would not be made until the revolving fund was established and the Government's initial deposit made (Section 2.02(c) of the draft Loan Agreement).

Benefits and Risks

69. The ultimate objective of the project would be to raise productivity and incomes in the critical agriculture sector by providing high quality university trained professionals to improve public sector programs, the management of individual farms, cooperatives, farm-related enterprises, and the agricultural programs of Peruvian universities. This would be accomplished by strengthening the NAU, which has the best Peruvian university level agricultural programs, in part by increasing the proportion of professors with graduate degrees from 40 to 48 percent. Emphasis would be given to expanding the graduate department where enrollments would increase from 200 to 500. The agricultural economics program would also be improved and given a more practical approach to provide students with a solid foundation for the application of their specialties. Research activities at NAU would be supported through the RDIs to expand programs for the multiplication and dissemination of improved products and to support extension services in the areas where the RDIs operate.

70. A possible risk for the project would be a strong earthquake causing heavy damage to project facilities, as happened in 1974. To minimize this risk: (a) a structural engineer has reviewed the designs for buildings in the central campus and his recommendations are being incorporated in the plans; (b) supervision missions would include at appropriate times a structural engineer rather than an architect; and (c) supervision of civil works construction would be done by highly qualified professionals experienced in anti-seismic construction.

PART V - LEGAL INSTRUMENTS AND AUTHORITY

71. The draft Loan Agreement between the Republic of Peru, the Banco de la Nacion (which, under Peruvian law, must be a party to all agreements providing for external loans to the Central Government) and the Bank, the draft Project Agreement between the NAU and the Bank, and the Report of the Committee provided for in Article III, Section 4 (iii) of the Articles of Agreement are being distributed to the Executive Directors separately.

72. Special conditions of the project are referred to in the text and listed in Section III of Annex III.

73. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Bank.

PART VI - RECOMMENDATION

74. I recommend that the Executive Directors approve the proposed loan.

A. W. Clausen
President

Attachments
October 19, 1982
Washington, D.C.

TABLE 3A
PERU - SOCIAL INDICATORS DATA SHEET

AREA (THOUSAND SQ. KM.)	PERU			REFERENCE GROUPS (WEIGHTED AVERAGES - MOST RECENT ESTIMATE) ²		
	TOTAL	1960 /b	1970 /b	MOST RECENT ESTIMATE /b	MIDDLE INCOME LATIN AMERICA & CARIBBEAN	MIDDLE INCOME EUROPE
TOTAL	1285.2					
AGRICULTURAL	305.5					
<u>GNP PER CAPITA (US\$)</u>		290.0	470.0	930.0	1902.0	2323.9
<u>ENERGY CONSUMPTION PER CAPITA (KILOGRAMS OF COAL EQUIVALENT)</u>		417.3	662.7	716.1	1259.9	2107.4
<u>POPULATION AND VITAL STATISTICS</u>						
POPULATION, MID-YEAR (THOUSANDS)	10181.0	13461.0	17379.0			
URBAN POPULATION (PERCENT OF TOTAL)	46.3	57.4	67.4		65.7	47.9
<u>POPULATION PROJECTIONS</u>						
POPULATION IN YEAR 2000 (MILLIONS)			27.3		.	.
STATIONARY POPULATION (MILLIONS)			48.8		.	.
YEAR STATIONARY POPULATION IS REACHED			2080		.	.
<u>POPULATION DENSITY</u>						
PER SQ. KM.		7.9	10.5	13.2	35.2	83.3
PER SQ. KM. AGRICULTURAL LAND		33.3	45.0	55.5	92.5	155.4
<u>POPULATION AGE STRUCTURE (PERCENT)</u>						
0-14 YRS.		43.6	44.3	42.9	39.7	31.1
15-64 YRS.		52.0	51.7	53.8	56.1	61.2
65 YRS. AND ABOVE		4.4	3.9	3.5	4.2	7.7
<u>POPULATION GROWTH RATE (PERCENT)</u>						
TOTAL		2.4	2.8	2.6	2.4	1.6
URBAN		5.1	4.9	4.2	3.8	3.5
<u>CRUDE BIRTH RATE (PER THOUSAND)</u>						
CRUDE BIRTH RATE (PER THOUSAND)		46.5	41.5	35.9	31.4	23.6
CRUDE DEATH RATE (PER THOUSAND)		20.0	14.8	10.9	8.4	9.2
GROSS REPRODUCTION RATE		3.3	3.0	2.4	2.1	1.6
<u>FAMILY PLANNING</u>						
ACCEPTORS, ANNUAL (THOUSANDS)		..	..	..	.	.
USERS (PERCENT OF MARRIED WOMEN)		..	..	..	..	..
<u>FOOD AND NUTRITION</u>						
<u>INDEX OF FOOD PRODUCTION PER CAPITA (1969-71=100)</u>		96.0	102.0	77.0	110.0	116.0
<u>PER CAPITA SUPPLY OF CALORIES (PERCENT OF REQUIREMENTS)</u>						
PER CAPITA SUPPLY OF CALORIES (PERCENT OF REQUIREMENTS)		98.3	97.2	97.5/c	108.4	125.1
PROTEINS (GRAMS PER DAY)		64.0	60.1	59.2/c	66.0	92.7
OF WHICH ANIMAL AND PULSE		28.0	25.1	24.0/c	34.0	35.9
CHILD (AGES 1-4) MORTALITY RATE		37.8	20.2	9.5	5.6	9.2
<u>HEALTH</u>						
LIFE EXPECTANCY AT BIRTH (YEARS)		47.4	53.1	58.1	64.2	67.6
INFANT MORTALITY RATE (PER THOUSAND)		162.9	119.7	87.7	64.2	65.1
<u>ACCESS TO SAFE WATER (PERCENT OF POPULATION)</u>						
TOTAL		14.6	35.0	48.3	65.6	..
URBAN		30.2	58.0	60.0	78.9	..
RURAL		0.8	8.0	25.0	43.9	..
<u>ACCESS TO EXCRETA DISPOSAL (PERCENT OF POPULATION)</u>						
TOTAL		..	36.0	34.0	59.3	..
URBAN		..	52.0	51.0	75.3	..
RURAL		..	16.0	..	30.0	..
<u>POPULATION PER PHYSICIAN</u>						
POPULATION PER PHYSICIAN		2011.7	1904.9	1532.4/c	1617.3	1105.4
POPULATION PER NURSING PERSON		2205.0/d	1000.5	676.1/c	1063.5	634.4
<u>POPULATION PER HOSPITAL BED</u>						
TOTAL		425.1	469.6	538.3/c	477.4	286.8
URBAN		273.8/e	524.9	426.4/c	679.8	192.0
RURAL		..	3055.2	5705.2/c	1903.4	..
ADMISSIONS PER HOSPITAL BED		..	19.0	23.0/c	27.3	20.0
<u>HOUSING</u>						
<u>AVERAGE SIZE OF HOUSEHOLD</u>						
TOTAL		4.9	4.8/f	..	..	..
URBAN		4.8	4.9/f	..	..	..
RURAL		4.9	4.6/f	..	..	..
<u>AVERAGE NUMBER OF PERSONS PER ROOM</u>						
TOTAL		2.3	1.9/f	..	..	..
URBAN		2.0	1.7/f	..	..	..
RURAL		2.7	2.4/f	..	..	..
<u>ACCESS TO ELECTRICITY (PERCENT OF DWELLINGS)</u>						
TOTAL		26.0	32.0/f	..	..	..
URBAN		50.7	54.3/f	..	..	..
RURAL		4.2	2.7/f	..	..	..

TABLE 3A
PERU - SOCIAL INDICATORS DATA SHEET

	PERU			REFERENCE GROUPS (WEIGHTED AVERAGES - MOST RECENT ESTIMATE) /a		
	1960 /b	MOST RECENT		MIDDLE INCOME	MIDDLE INCOME	
		1970 /b	ESTIMATE /b	/b	LATIN AMERICA & CARIBBEAN	EUROPE
EDUCATION						
ADJUSTED ENROLLMENT RATIOS						
PRIMARY:	TOTAL	83.0	103.0	112.0	104.3	102.4
	MALE	95.0	111.0	115.0/e	106.4	107.1
	FEMALE	71.0	96.0	108.0/e	103.3	99.0
SECONDARY:	TOTAL	15.0	30.0	50.0/e	41.3	60.2
	MALE	18.0	34.0	53.0/e	40.4	66.4
	FEMALE	13.0	26.0	46.0/e	41.8	54.0
VOCATIONAL ENROL. (% OF SECONDARY)		19.9	17.1	18.3/e	33.7	31.6
PUPIL-TEACHER RATIO						
	PRIMARY	33.6	35.5	40.2	29.9	25.8
	SECONDARY	12.3	17.3	29.2	16.7	22.2
ADULT LITERACY RATE (PERCENT)		61.0	72.5/f	79.7	79.1	75.9
CONSUMPTION						
PASSENGER CARS PER THOUSAND						
	POPULATION	7.8	17.1	18.6/e	42.8	51.0
RADIO RECEIVERS PER THOUSAND						
	POPULATION	108.0	135.1	147.5	270.5	157.2
TV RECEIVERS PER THOUSAND						
	POPULATION	3.2	29.3	50.2	107.7	123.7
NEWSPAPER ("DAILY GENERAL INTEREST") CIRCULATION PER THOUSAND POPULATION						
		..	123.3	51.4/e	63.7	112.3
CINEMA ANNUAL ATTENDANCE PER CAPITA						
		6.4	..	..	2.7	4.0
LABOR FORCE						
TOTAL LABOR FORCE (THOUSANDS)						
		3186.8	3891.8	5149.2	.	.
FEMALE (PERCENT)						
		21.2	20.8	23.2	24.4	36.6
AGRICULTURE (PERCENT)						
		52.5	48.0	40.0	31.3	38.7
INDUSTRY (PERCENT)						
		19.6	18.4	18.5	23.9	25.9
PARTICIPATION RATE (PERCENT)						
TOTAL						
		31.3	28.9	29.6	33.6	44.5
MALE						
		49.6	45.8	45.5	50.4	56.3
FEMALE						
		13.2	12.0	13.7	16.8	32.8
ECONOMIC DEPENDENCY RATIO		1.5	1.7	1.6	1.3	0.9
INCOME DISTRIBUTION						
PERCENT OF PRIVATE INCOME RECEIVED BY						
	HIGHEST 5 PERCENT OF HOUSEHOLDS	39.0/g	..	..	..	..
	HIGHEST 20 PERCENT OF HOUSEHOLDS	64.4/g	61.0/f	..	..	..
	LOWEST 20 PERCENT OF HOUSEHOLDS	2.5/g	1.9/f	..	..	..
	LOWEST 40 PERCENT OF HOUSEHOLDS	8.0/g	7.0/f	..	..	..
POVERTY TARGET GROUPS						
ESTIMATED ABSOLUTE POVERTY INCOME LEVEL (US\$ PER CAPITA)						
	URBAN	..	..	235.0/c	..	..
	RURAL	..	..	180.0/e	184.1	..
ESTIMATED RELATIVE POVERTY INCOME LEVEL (US\$ PER CAPITA)						
	URBAN	..	..	293.0/c	518.0	..
	RURAL	..	..	200.0/e	371.1	406.6
ESTIMATED POPULATION BELOW POVERTY INCOME LEVEL (PERCENT)						
	URBAN	..	..	49.0/c	..	..
	RURAL	..	..	..	..	..

.. Not available
. Not applicable.

NOTES

/a The group averages for each indicator are population-weighted arithmetic means. Coverage of countries among the indicators depends on availability of data and is not uniform.

/b Unless otherwise noted, data for 1960 refer to any year between 1959 and 1961; for 1970, between 1969 and 1971; and for Most Recent Estimate, between 1978 and 1980.

/c 1977; /d 1964; /e 1962; /f 1972; /g Personal income within labor force.

DEFINITIONS OF SOCIAL INDICATORS

Notes: Although the data are drawn from sources generally judged the most authoritative and reliable, it should also be noted that they may not be internationally comparable because of the lack of standardized definitions and concepts used by different countries in collecting the data. The data are, nonetheless, useful to describe orders of magnitude, indicate trends, and characterize certain major differences between countries.

The reference groups are (1) the same country group of the subject country and (2) a country group with somewhat higher average income than the country group of the subject country (except for "High Income Oil Exporters" group where "Middle Income North Africa and Middle East" is chosen because of stronger socio-cultural affinities). In the reference group data the averages are population weighted arithmetic means for each indicator and shown only when majority of the countries in a group has data for that indicator. Since the coverage of countries among the indicators depends on the availability of data and is not uniform, caution must be exercised in relating averages of one indicator to another. These averages are only useful in comparing the value of one indicator at a time among the country and reference groups.

AREA (thousand sq.km.)

Total - Total surface area comprising land area and inland waters; 1979 data.
Agricultural - Estimate of agricultural area used temporarily or permanently for crops, pastures, market and kitchen gardens or to lie fallow; 1979 data.

GNP PER CAPITA (US\$) - GNP per capita estimates at current market prices, calculated by same conversion method as World Bank Atlas (1978-80 basis); 1960, 1970, and 1980 data.

ENERGY CONSUMPTION PER CAPITA - Annual consumption of commercial energy (coal and lignite, petroleum, natural gas and hydro-, nuclear and geothermal electricity) in kilograms of coal equivalent per capita; 1960, 1970, and 1979 data.

POPULATION AND VITAL STATISTICS

Total Population, Mid-Year (thousands) - As of July 1, 1960, 1970, and 1980 data.

Urban Population (percent of total) - Ratio of urban to total population; different definitions of urban areas may affect comparability of data among countries; 1960, 1970, and 1980 data.

Population Projections

Population in year 2000 - Current population projections are based on 1980 total population by age and sex and their mortality and fertility rates. Projection parameters for mortality rates comprise of three levels assuming life expectancy at birth increasing with country's per capita income level, and female life expectancy stabilizing at 77.5 years. The parameters for fertility rate also have three levels assuming decline in fertility according to income level and past family planning performance. Each country is then assigned one of these nine combinations of mortality and fertility trends for projection purposes.

Stationary population - In a stationary population there is no growth since the birth rate is equal to the death rate, and also the age structure remains constant. This is achieved only after fertility rates decline to the replacement level of unit net reproduction rate, when each generation of women replaces itself exactly. The stationary population size was estimated on the basis of the projected characteristics of the population in the year 2000, and the rate of decline of fertility rate to replacement level.

Year stationary population is reached - The year when stationary population size will be reached.

Population Density

Per sq. km. - Mid-year population per square kilometer (100 hectares) of total area; 1960, 1970 and 1979 data.

Per sq. km. agricultural land - Computed as above for agricultural land only; 1960, 1970 and 1979 data.

Population Age Structure (percent) - Children (0-14 years), working-age (15-64 years), and retired (65 years and over) as percentages of mid-year population; 1960, 1970, and 1980 data.

Population Growth Rate (percent) - total - Annual growth rates of total mid-year population for 1950-60, 1960-70, and 1970-80.
Population Growth Rate (percent) - urban - Annual growth rates of urban populations for 1950-60, 1960-70, and 1970-80.

Crude Birth Rate (per thousand) - Annual live births per thousand of mid-year population; 1960, 1970, and 1980 data.

Crude Death Rate (per thousand) - Annual deaths per thousand of mid-year population; 1960, 1970, and 1980 data.

Crude Reproduction Rate - Average number of daughters a woman will bear in her normal reproductive period if she experiences present age-specific fertility rates; usually five-year averages ending in 1960, 1970, and 1980.

Family Planning - Acceptors, Annual (thousands) - Annual number of acceptors of birth-control devices under auspices of national family planning program.

Family Planning - Users (percent of married women) - Percentage of married women of child-bearing age (15-44 years) who use birth-control devices to all married women in same age group.

FOOD AND NUTRITION

Index of Food Production per Capita (1969-71=100) - Index of per capita annual production of all food commodities. Production excludes seed and feed and is on calendar year basis. Commodities cover primary goods (e.g. sugarcane instead of sugar) which are edible and contain nutrients (e.g. coffee and tea are excluded). Aggregate production of each country is based on national average producer price weights; 1961-65, 1970, and 1980 data.

Per capita supply of calories (percent of requirements) - Computed from energy equivalent of net food supplies available in country per capita per day. Available supplies comprise domestic production, imports less exports, and changes in stock. Net supplies exclude animal feed, seeds, quantities used in food processing, and losses in distribution. Requirements were estimated by FAO based on physiological needs for normal activity and health considering environmental temperature, body weights, age and sex distribution of population, and allowing 10 percent for waste at household level; 1961-65, 1970 and 1977 data.

Per capita supply of protein (grams per day) - Protein content of per capita net supply of food per day. Net supply of food is defined as above. Requirements for all countries established by USDA provide for minimum allowances of 50 grams of total protein per day and 20 grams of animal and pulse protein, of which 10 grams should be animal protein. These standards are lower than those of 75 grams of total protein and 23 grams of animal protein as an average for the world, proposed by FAO in the Third World Food Survey; 1961-65, 1970 and 1977 data.

Per capita protein supply from animal and pulse - Protein supply of food derived from animals and pulses in grams per day; 1961-65, 1970 and 1977 data.

Child (ages 1-4) Death Rate (per thousand) - Annual deaths per thousand in age group 1-4 years, to children in this age group; for most developing countries data derived from life tables; 1960, 1970 and 1980 data.

Per capita supply of protein (grams per day) - Protein supply of food derived from animals and pulses in grams per day; 1961-65, 1970 and 1977 data.

Child (ages 1-4) Death Rate (per thousand) - Annual deaths per thousand in age group 1-4 years, to children in this age group; for most developing countries data derived from life tables; 1960, 1970 and 1980 data.

HEALTH

Life Expectancy at Birth (years) - Average number of years of life remaining at birth; 1960, 1970 and 1980 data.

Infant Mortality Rate (per thousand) - Annual deaths of infants under one year of age per thousand live births; 1960, 1970 and 1980 data.

Access to Safe Water (percent of population) - total, urban, and rural - Number of people (total, urban, and rural) with reasonable access to safe water supply (includes treated surface waters or untreated but uncontaminated water such as that from protected boreholes, springs, and sanitary wells) as percentages of their respective populations. In an urban area a public fountain or standpost located not more than 200 meters from a house may be considered as being within reasonable access of that house. In rural areas reasonable access would imply that the housewife or members of the household do not have to spend a disproportionate part of the day in fetching the family's water needs.

Access to Excreta Disposal (percent of population) - total, urban, and rural - Number of people (total, urban, and rural) served by excreta disposal as percentages of their respective populations. Excreta disposal may include the collection and disposal, with or without treatment, of human excreta and waste-water by water-borne systems or the use of pit privies and similar installations.

Population per Physician - Population divided by number of practicing physicians qualified from a medical school at university level.

Population per Nursing Person - Population divided by number of practicing male and female graduate nurses, assistant nurses, practical nurses and nursing auxiliaries.

Population per Hospital Bed - total, urban, and rural - Population (total, urban, and rural) divided by their respective number of hospital beds available in public and private general and specialized hospital and rehabilitation centers. Hospitals are establishments permanently staffed by at least one physician. Establishments providing principally custodial care are not included. Rural hospitals, however, include health and medical centers not permanently staffed by a physician (but by a medical assistant, nurse, midwife, etc.) which offer in-patient accommodation and provide a limited range of medical facilities. For statistical purposes urban hospitals include WHO principal/general hospitals, and rural hospitals, local or rural hospitals and medical and maternity centers. Specialized hospitals are included only under total.
Admissions per Hospital Bed - Total number of admissions to or discharges from hospitals divided by the number of beds.

HOUSING

Average Size of Household (persons per household) - total, urban, and rural - A household consists of a group of individuals who share living quarters and their main meals. A boarder or lodger may or may not be included in the household for statistical purposes.

Average number of persons per room - total, urban, and rural - average number of persons per room in all urban, and rural occupied conventional dwellings, respectively. Dwellings exclude non-permanent structures and unoccupied parts.

Access to Electricity (percent of dwellings) - total, urban, and rural - Conventional dwellings with electricity in living quarters as percentage of total, urban, and rural dwellings respectively.

EDUCATION**Adjusted Enrollment Rates**

Primary school - total, male and female - Gross total, male and female enrollment of all ages at the primary level as percentages of respective primary school-age populations; normally includes children aged 6-11 years but adjusted for different lengths of primary education; for countries with universal education enrollment may exceed 100 percent since some pupils are below or above the official school age.

Secondary school - total, male and female - Computed as above; secondary education requires at least four years of approved primary instruction; provides general, vocational, or teacher training instructions for pupils usually of 12 to 17 years of age; correspondence courses are generally excluded.

Vocational enrollment (percent of secondary) - Vocational institutions include technical, industrial, or other programs which operate independently or as departments of secondary institutions.

Pupil-teacher ratio - primary, and secondary - Total students enrolled in primary and secondary levels divided by numbers of teachers in the corresponding levels.

Adult literacy rate (percent) - Literate adults (able to read and write) as a percentage of total adult population aged 15 years and over.

CONSUMPTION

Passenger Cars (per thousand population) - Passenger cars comprise motor cars seating less than eight persons; excludes ambulances, hearses and military vehicles.

Radio Receivers (per thousand population) - All types of receivers for radio broadcasts to general public per thousand of population; excludes unlicensed receivers in countries and in years when registration of radio sets was in effect; data for recent years may not be comparable since most countries abolished licensing.

TV Receivers (per thousand population) - TV receivers for broadcast to general public per thousand population; excludes unlicensed TV receivers in countries and in years when registration of TV sets was in effect.

Newspaper Circulation (per thousand population) - Shows the average circulation of "daily general interest newspaper", defined as a periodical publication devoted primarily to recording general news. It is considered to be "daily" if it appears at least four times a week.

Cinema Annual Attendance per Capita per Year - Based on the number of tickets sold during the year, including admissions to drive-in cinemas and mobile units.

LABOR FORCE

Total Labor Force (thousands) - Economically active persons, including armed forces and unemployed but excluding housewives, students, etc., covering population of all ages. Definitions in various countries are not comparable; 1960, 1970 and 1980 data.

Female (percent) - Female labor force as percentage of total labor force.

Agriculture (percent) - Labor force in farming, forestry, hunting and fishing as percentage of total labor force; 1960, 1970 and 1980 data.

Industry (percent) - Labor force in mining, construction, manufacturing and electricity, water and gas as percentage of total labor force; 1960, 1970 and 1980 data.

Participation Rate (percent) - total, male, and female - Participation or activity rates are computed as total, male, and female labor force as percentages of total, male and female population of all ages respectively; 1960, 1970, and 1980 data. These are based on ILO's participation rates reflecting age-sex structure of the population, and long time trend. A few estimates are from national sources.

Economic Dependency Ratio - Ratio of population under 15 and 65 and over to the total labor force.

INCOME DISTRIBUTION

Percentage of Private Income (both in cash and kind) - Received by richest 5 percent, richest 20 percent, poorest 20 percent, and poorest 40 percent of households.

POVERTY TARGET GROUPS

The following estimates are very approximate measures of poverty levels, and should be interpreted with considerable caution.

Estimated Absolute Poverty Income Level (US\$ per capita) - urban and rural - Absolute poverty income level is that income level below which a minimal nutritionally adequate diet plus essential non-food requirements is not affordable.

Estimated Relative Poverty Income Level (US\$ per capita) - urban and rural - Rural relative poverty income level is one-third of average per capita personal income of the country. Urban level is derived from the rural level with adjustment for higher cost of living in urban areas.

Estimated Population Below Absolute Poverty Income Level (percent) - urban and rural - Percent of population (urban and rural) who are "absolute poor".



ECONOMIC DEVELOPMENT DATA

NATIONAL ACCOUNTS (Millions of US dollars at 1977 prices)	A C T U A L										ESTIMATED		PROJECTED		GROWTH RATE (% P.A.)			1977 % of GDP
	1965	1970	1975	1976	1977	1978	1979	1980	1981	1982	1981	1982	1985	1986	1965-76	1976-80	1980-85	
Gross Domestic Product	8902.5	10493.6	13376.8	13647.1	13639.6	13570.8	14079.0	14516.4	15082.5	18792.5	15082.5	18792.5	18792.5	1965-76	3.9	1.6	5.3	100.0
Exports from Terms of Trade	8910.9	1310.0	-246.9	-179.4	0.0	-235.9	679.9	872.1	317.0	558.2	317.0	558.2	558.2		n.a.	n.a.	n.a.	0
Gains from Terms of Trade	8391.6	10823.0	13129.9	13677.7	13659.6	13334.9	14758.9	15388.5	13399.5	19350.7	13399.5	19350.7	19350.7		4.4	3.4	4.7	100.0
Gross Domestic Income (GDI)	23407.2	21501.1	29985.4	28977.7	27064.8	28884.7	28068.8	30046.6	34555.3	37254.7	34555.3	37254.7	37254.7		3.5	2.7	4.4	19.8
Imports	13407.2	1704.2	1906.5	1908.8	2129.5	2193.2	22730.1	2578.5	2632.6	2979.6	2632.6	2979.6	2979.6		-1.7	7.8	2.9	15.6
Exports, Terms of Trade Adjusted	1704.2	2726.8	1660.0	1729.4	1219.5	2431.0	3410.0	3450.6	2949.6	3537.8	2949.6	3537.8	3537.8		0.1	18.9	0.5	15.6
Resource Gap, Terms of Trade Adjusted (-: surplus)	1324.9	-556.7	1325.4	968.3	577.3	-906.6	-1232.2	-446.4	505.7	186.9	505.7	186.9	186.9		n.a.	n.a.	n.a.	4.2
Total Consumption	6667.3	8669.0	11313.3	11694.8	12172.2	11272.3	11633.5	12543.7	12990.5	15787.9	12543.7	15787.9	15787.9		5.4	1.8	4.7	89.2
Investment	1967.1	1597.9	11313.3	2741.2	2044.7	1756.0	1802.2	2398.8	2914.7	3746.7	2914.7	3746.7	3746.7		3.1	-3.3	9.3	15.0
Domestic Savings	1930.3	2154.6	1816.6	1772.9	1467.4	2062.6	3125.4	2844.8	2409.0	3562.8	2409.0	3562.8	3562.8		-0.3	12.5	4.6	10.8

PRICES IN US DOLLARS (1977 = 100)

Export Price Index	1970	1975	1976	1977	1978	1979	1980	1981	1982
Export Price Index	32.9	46.5	87.4	90.6	100.0	97.7	148.6	175.4	243.4
Import Price Index	44.7	105.0	100.4	95.7	100.0	108.1	119.0	131.0	205.2
Terms of Trade Index	73.6	87.1	124.9	124.9	133.9	90.4	124.9	133.9	118.7
Annual Average Exchange Rate (Sales per \$)	26.8	38.7	40.8	57.4	83.8	156.3	224.6	288.7	n.a.

OUTPUT, LABOR FORCE AND PRODUCTIVITY IN 1973 PRICES

Agriculture (incl. fishing)	In Mill. of US Dollars		Percent of Total		Growth Rate 70-80	In Thousands		Percent of Total		Growth Rate 70-80	In US Dollars		Percent of Average		Growth Rate 70-80
	1970	1980	1970	1980		1970	1980	1970	1980		1970	1980	1970	1980	
Industry (mining, manuf., electr., const.)	1534.2	1457.8	17.3	11.8	-0.5	2011.9	2248.0	48.0	40.0	1.1	762.6	648.5	36.1	29.4	-1.6
Services (all others)	3226.3	4712.4	36.5	38.1	3.9	1037.2	18.4	18.4	18.5	3.0	4194.9	4543.4	198.6	206.2	0.8
Total/Average	4084.8	6198.1	46.2	50.1	4.3	1407.6	2328.3	33.6	41.5	5.2	2902.0	2662.1	137.4	120.8	-0.9
Total/Average	8845.3	12368.3	100.0	100.0	3.4	4188.6	5613.5	100.0	100.0	3.0	2111.8	2203.3	100.0	100.0	0.4

CENTRAL GOVERNMENT FINANCE (as percent of current GDP)

Current Revenue	1965	1970	1975	1976	1977	1978	1979	1980	ESTIMATED 1981	PROJECTED 1982
Current Revenue	13.2	14.6	14.0	13.4	13.5	14.3	16.0	18.4	16.6	17.2
Current Expenditure	12.4	12.1	14.4	14.8	16.9	15.8	12.8	16.2	16.5	15.7
Current Savings	0.8	2.5	-0.4	-1.4	-3.4	-1.5	3.2	2.2	0.1	1.5
Capital Expenditures	3.9	3.7	4.5	4.5	3.5	3.1	4.7	4.7	4.6	4.1
External Assistance (Net)	1.0	0.5	2.3	1.8	3.0	0.4	-0.7	0.3	0.3	0

CURRENT EXPENDITURE DETAILS (as percent of Total Current Expenditure)

	A C T U A L					DETAILS ON PUBLIC SECTOR INVESTMENT PROGRAM		1981/85 Development Plan	
	1968	1973	1975	1976	1977	1978	1979	1980	1981
Education	30.6	27.9	22.9	18.1	16.1	16.0	18.4	16.6	14.1
Health	9.0	6.3	6.2	4.7	6.0	6.0	6.2	6.5	8.3
Agriculture	3.6	4.4	1.8	1.3	2.7	2.7	2.2	2.2	24.2
Other Economic Services	3.2	4.0	3.2	3.2	4.2	4.2	4.7	4.6	23.0
General Services (including defense)	46.4	42.7	46.9	54.1	24.1	24.1	24.1	24.1	30.4
Interest on Debt	5.4	11.3	10.8	15.1	24.1	24.1	24.1	24.1	30.4
Other	1.8	3.3	6.2	3.5	2.5	2.5	2.5	2.5	30.4
Total Current Expenditures	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

MONEY AND CREDIT (Billions of Sales outstanding at the end of period)

	1973	1974	1975	1976	1977	1978	1979	1980	1981
Money and Quasi-Money	98.3	120.0	141.8	142.4	166.3	166.8	216.2	220.5	344.1
Bank Credit to Public Sector	20.3	20.9	49.7	60.3	103.4	115.3	149.3	198.9	262.2
Bank Credit to Private Sector	77.2	84.5	108.2	109.8	136.5	157.8	173.8	173.8	233.1
Underlying Exchange Rate (\$/per US\$)	38.7	38.7	38.7	65.0	65.0	85.0	85.0	160.0	160.0
Money as Percent of GDP	37.5	24.3	54.3	22.7	20.1	20.1	18.9	19.3	18.7
Consumer Price Index in Sales (1977=100)		43.9	54.3	72.4	20.0	20.1	100.0	157.8	19.6

Annual Percentage Change In:

	1973	1974	1975	1976	1977	1978	1979	1980	1981
Consumer Price Index in Sales	9.5	16.9	23.7	33.5	33.5	38.0	38.0	57.8	67.7
Bank Credit to Public Sector	27.2	53.7	84.8	68.2	68.2	29.5	29.5	31.8	-32.8
Bank Credit to Private Sector	27.7	15.5	28.1	22.4	22.4	23.4	23.4	34.1	57.4

STATEMENT OF BALANCE OF PAYMENTS

(In millions of U.S. dollars at current prices)

	A. C. I. A.									
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Exports (including gifts)	1152.9	1342.2	1698.2	1628.1	1742.6	2131.9	2398.9	4066.4	4859.9	4984.7
Imports (including gifts)	1102.9	1400.0	2462.3	3022.0	2838.0	2684.4	2076.1	2418.2	3908.2	4620.5
Balance (Excess of Exports over Imports)	50.0	-57.8	-764.1	-1393.9	-895.4	-552.5	1492.3	-651.8	-848.3	-635.8
Net Factor Services Income	-120.9	-180.9	-218.5	-740.3	-166.4	-577.7	-877.3	-619.3	-917.1	-1687.8
Net Interest Payments	-74.2	-100.7	-117.6	-214.0	-328.0	-317.9	-314.2	-433.3	-587.4	-887.1
Net Income from Foreign Investments	140.2	209.7	306.1	334.1	339.4	381.1	346.0	425.8	433.9	516.0
Net Current Transfers	-46.7	-80.2	-42.1	-47.2	-42.3	-34.5	-61.4	-24.0	-30.0	-20.0
Balance on Current Account	-12.6	-68.9	-133.2	-490.8	-330.9	-233.8	-223.0	-302.3	-433.8	-596.9
Net Direct Foreign Investment	24.2	48.4	143.9	313.7	170.9	54.1	23.0	16.9	22.9	207.0
Net Public Short-Term Loans ^{a/}	290.0	667.4	1078.0	1680.2	1444.4	1026.4	841.8	1342.3	1230.7	1704.1
Net Public Short-Term Debt	-130.4	-304.9	-318.4	-248.4	-408.4	-408.4	-478.0	-676.2	-935.5	-1286.9
Net Long-Term Loans	149.5	382.3	739.4	898.6	852.8	608.0	363.8	666.1	272.2	417.2
Net Long-Term Debt	14.1	27.4	81.5	87.9	74.2	61.8	81.4	188.7	314.0	314.0
Net Borrowing	205.8	410.4	420.0	329.2	334.2	246.8	163.2	245.5	140.0	64.0
Net Error and Omission	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Other Capital (Net)	56.8	-14.6	-201.5	330.6	530.6	300.4	58.7	-48.0	-178.8	-282.1
Net Change in Reserves (End of period) -	1.8	-11.5	283.1	-227.0	-757.4	-107.1	-1025.1	953.8	1276.1	694.0

REVENUES AND EXPENDITURES PUBLIC DEBT

	A. C. I. A.									
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Interest	125.9	183.3	243.7	301.8	332.5	398.4	530.4	734.7	954.6	1211.5
Other	13.5	14.2	18.1	21.5	23.8	26.1	28.4	30.7	33.0	35.0
Total	139.4	197.5	261.8	323.3	356.3	424.5	558.8	765.4	987.6	1246.5
Net Issue of New Debt	423.6	508.4	642.4	781.1	922.1	1061.3	1229.3	1404.7	1578.2	1743.0
Net Redemption of Debt	199.3	240.0	294.1	358.2	414.8	480.9	560.7	651.0	755.3	867.5
Total	224.3	268.4	348.3	422.9	497.3	580.4	681.6	796.7	922.9	1078.8
Net Change in Debt	205.2	240.0	304.1	358.2	414.8	480.9	560.7	651.0	755.3	867.5

STATEMENT OF BALANCE OF PAYMENTS

(In millions of U.S. dollars at current prices)

	A. C. I. A.									
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Exports (including gifts)	1152.9	1342.2	1698.2	1628.1	1742.6	2131.9	2398.9	4066.4	4859.9	4984.7
Imports (including gifts)	1102.9	1400.0	2462.3	3022.0	2838.0	2684.4	2076.1	2418.2	3908.2	4620.5
Balance (Excess of Exports over Imports)	50.0	-57.8	-764.1	-1393.9	-895.4	-552.5	1492.3	-651.8	-848.3	-635.8
Net Factor Services Income	-120.9	-180.9	-218.5	-740.3	-166.4	-577.7	-877.3	-619.3	-917.1	-1687.8
Net Interest Payments	-74.2	-100.7	-117.6	-214.0	-328.0	-317.9	-314.2	-433.3	-587.4	-887.1
Net Income from Foreign Investments	140.2	209.7	306.1	334.1	339.4	381.1	346.0	425.8	433.9	516.0
Net Current Transfers	-46.7	-80.2	-42.1	-47.2	-42.3	-34.5	-61.4	-24.0	-30.0	-20.0
Balance on Current Account	-12.6	-68.9	-133.2	-490.8	-330.9	-233.8	-223.0	-302.3	-433.8	-596.9
Net Direct Foreign Investment	24.2	48.4	143.9	313.7	170.9	54.1	23.0	16.9	22.9	207.0
Net Public Short-Term Loans ^{a/}	290.0	667.4	1078.0	1680.2	1444.4	1026.4	841.8	1342.3	1230.7	1704.1
Net Public Short-Term Debt	-130.4	-304.9	-318.4	-248.4	-408.4	-408.4	-478.0	-676.2	-935.5	-1286.9
Net Long-Term Loans	149.5	382.3	739.4	898.6	852.8	608.0	363.8	666.1	272.2	417.2
Net Long-Term Debt	14.1	27.4	81.5	87.9	74.2	61.8	81.4	188.7	314.0	314.0
Net Borrowing	205.8	410.4	420.0	329.2	334.2	246.8	163.2	245.5	140.0	64.0
Net Error and Omission	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Other Capital (Net)	56.8	-14.6	-201.5	330.6	530.6	300.4	58.7	-48.0	-178.8	-282.1
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REVENUES AND EXPENDITURES PUBLIC DEBT

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Net Change in Debt	205.2	240.0	304.1	358.2	414.8	480.9	560.7	651.0	755.3	867.5

^{a/} Adjusted for balance of payments impact issues and redemptions.

^{b/} Based on 1980 levels as reported by Central Bank.

^{c/} These are differences in classification of certain capital flows as between public vs. private or long-term vs. short-term that limit the comparability of parts of the data outstanding figures known at the bottom of this sheet with the flows shown in the balance of payments section.

THE STATUS OF BANK GROUP OPERATIONS IN PERUA. STATEMENT OF BANK LOANS (as of September 30, 1982)

<u>Loan Number</u>	<u>Year</u>	<u>Borrower</u>	<u>Purpose</u>	<u>Amount (less cancellations)</u>	
				<u>Bank</u>	<u>Undisbursed</u>
				--- US\$ million ---	
27 loans fully disbursed				409.2	
949	1973	Republic of Peru	Education	24.0	1.5
1196	1976	Republic of Peru	Transport	76.5	17.0
1215	1976	Republic of Peru	Power	35.6	4.1
1281	1976	CENTROMIN	Mining	39.7	3.9
1283	1976	Banco Vivienda	Urban Dev.	21.6	8.0
1358	1977	COFIDE	Industry	35.0	3.2
1403	1977	Republic of Peru	Agriculture	25.0	19.0
S-11	1978	Republic of Peru	Preinvestment	8.8	1.7
1771	1980	Republic of Peru	Irrigation	56.0	46.0
1806	1980	PETROPERU	Petroleum Prod.	32.5	20.9
1812	1980	Republic of Peru	Rural Dev.	15.0	13.1
1888	1980	Republic of Peru	Preinvestment	7.5	5.1
S-19	1980	SIDERPERU	Technical Asst.	5.0	4.6
1963	1981	CORPAC	Aviation	58.0	56.9
1968	1981	COFIDE	Industry	60.0	53.0
2018	1981	ELECTROPERU	Power	25.0	24.9
2064	1981	Central Reserve Bank	Industry	26.0	26.0
2091	1982	Republic of Peru	Transport	93.0	93.0
2117	1982	PETROPERU	Industry	5.3	5.3
2139	1982	SEDAPAL	Water Supply	40.6	40.6
2150	1982	Republic of Peru	Agriculture	40.6	40.6
2179	1982	ELETROLIMA	Power	81.2	81.2
2195	1982	PETROPERU	Petroleum	81.2	81.2
2204	1982	Republic of Peru	Technical Asst.	10.2	10.2
Total				1,312.5	
of which has been repaid				197.2	
Total now outstanding				1,115.3	
Amount sold			18.3		
of which has been repaid			18.3		
Total now held by Bank				1,115.3	
Total undisbursed					661.0

B. STATEMENT OF IFC INVESTMENTS (as of September 30, 1982)

<u>Year</u>	<u>Obligor</u>	<u>Type of Business</u>	<u>Loan</u>	<u>Equity</u>	<u>Total</u>
1960	Industrias Reunidas, S.A.	Home Appliances	0.2	-	0.2
1960	Luren S.A. and Ladrillos Calcareos, S.A.	Bricks	0.3	-	0.3
1960	Durisol del Peru, S.A.	Building Materials	0.3	-	0.3
1960; 1962	Fertilizantes Sinteticos, S.A.	Fertilizers	4.1	-	4.1
1962; 1968	Cemento Andino, S.A.	Cement	2.3	0.2	2.5
1964; 1967	Cia. de Cemento Pacasmayo	Cement	1.1	0.5	1.6
1975	Southern Peru Copper Corp.	Mining	15.0	-	15.0
1978	Cia. de Minas Buenaventura	Mining	2.0	0.5	2.5
1980	Cia. Minera San Ignacio de Morococha, S.A.	Mining	2.7	0.5	3.2
1981	Sogewiese	Leasing	3.0	0.1	3.1
1981	Consortio Energetico de Huancavelica	Power Transmission	4.5	-	4.5
1982	Palmas del Espino	Palm Oil	15.0	-	15.0
1982	Sociedad Minera Gran Bretana S.A.	Mining	<u>3.0</u>	<u>0.5</u>	<u>3.5</u>
	Total gross commitments		53.5	2.3	55.8
	less cancellations, terminations, repayments and sales		<u>19.9</u>	<u>0.4</u>	<u>20.3</u>
	Total held by IFC		<u>33.6</u>	<u>1.9</u>	<u>35.5</u>
	Total undisbursed incl. participants' portion		<u>7.1</u>	<u>-</u>	<u>7.1</u>

C. STATUS OF PROJECTS IN EXECUTION 1/
(As of September 30, 1982)

Loan 949-PE: Education Project; US\$24.0 million Loan of December 5, 1973;
Effective Date: March 5, 1974; Closing Date: June 30, 1982.

The project has experienced serious difficulties and is now about 40 months behind schedule owing to start-up problems including weaknesses in the project unit and cumbersome bureaucratic procedures. In order to resolve these problems, the project has been modified to reduce its scope, increase the Bank disbursement percentage, create a revolving fund and improve administrative procedures (see President's Memorandum R79-59 of March 27, 1979). As a result, the pace of project execution improved substantially and the project has now been completed except for preparation activities for a second education project. An extension of the closing date until February 28, 1983 is now being considered for such preparation activities only.

Loan 1196-PE: Lima-Amazon Transport Corridor Project; US\$76.5 million Loan of
May 27, 1976; Effective Date: August 18, 1976; Closing Date:
December 31, 1982.

Construction of the project's river ports component is almost completed, although with some cost increases because of start-up difficulties. There were serious delays in contracting for civil works under the road component because of slow procedures and limited Government implementation capacity. These problems have been largely overcome and construction is now underway on all project components. The project has been modified so as to reallocate funds for the purchase of road maintenance equipment and eliminate improvement of those road sections which cannot be completed within a reasonable time (see President's Memorandum R79-88 of April 27, 1979). Although the project is moving well, an extension of the closing date will be necessary to permit its completion.

Loan 1215-PE: Fifth Power Project; US\$36.0 million Loan of September 20, 1976;
Effective Date: November 18, 1976; Closing Date: December 31,
1982.

The slowdown of demand in ELECTROLIMA's market in the wake of economic difficulties as well as procurement problems, have delayed the project's power distribution component and completion is expected about a year behind schedule. Serious delays were also experienced in getting the technical assistance program of the loan underway; however, all consultants have now been retained, and with strong support from the current staff in the Ministry of Energy and Mines the program is now well advanced. Because of the delays, the Closing Date has been extended to end-1982.

1/ These notes are designed to inform the Executive Directors regarding the progress of projects in execution, and in particular to report any problems which are being encountered, and the action being taken to remedy them. They should be read in this sense, and with the understanding that they do not purport to present a balanced evaluation of strengths and weaknesses in project execution.

Loan 1281-PE: CENTROMIN Mining Project; US\$40.0 million Loan of December 6, 1976; Effective Date: May 24, 1977; Closing Date: December 31, 1982.

Initiation of the copper mining component was delayed by about two years because of the lack of local counterpart funds owing to the recession of the late 1970s. CENTROMIN is now proceeding with the project with support from additional Government counterpart funds, as well as a supplementary IDB loan and commercial bank borrowing to cover inflationary cost increases. Engineering, procurement and mine development activities on this part of the project are well-advanced. The mine-water treatment plant has been completed.

Loan 1283-PE: Urban Sites and Services Development Project; US\$21.6 million Loan of October 12, 1976; Effective Date: January 10, 1977; Closing Date: December 31, 1982.

Administrative difficulties, particularly the need to reconcile Peruvian procedures with Bank guidelines for procurement, delayed the project by about one year. All components are now moving ahead well and disbursements stand at over US\$13.0 million. Because of past delays, however, the Closing Date will have to be extended to permit completion of the project.

Loan 1358-PE: Industrial Credit Project; US\$35.0 million Loan of January 28, 1977; Effective Date: March 30, 1977; Closing Date: June 30, 1983.

Peru's economic recession led to a contraction of investment and to lower than anticipated demand for the loan in the late 1970s. In view of this, the Borrower--the National Development Bank (COFIDE)--agreed to finance projects identified by commercial banks and other financial institutions, which would also guarantee these loans and provide some loan servicing. With this action and improving economic conditions over the past two years, demand for the credit line has increased, and it is now fully committed.

Loan 1403-PE: Irrigation Rehabilitation Project; US\$25.0 million Loan of May 20, 1977; Effective Date: August 2, 1977; Closing Date: June 30, 1983.

Because of the weakness of the project unit, there was a long delay in completing the designs for civil works in the six valleys where irrigation systems are to be improved. The unit has been substantially strengthened over the past few years, the design phase is now complete and construction has started. The project, however, is now several years behind schedule.

Loan S-11-PE: Water Supply and Power Engineering Project; US\$8.8 million Loan of December 22, 1978; Effective Date: June 27, 1979; Closing Date: December 31, 1982.

The main components of this project consisted of the feasibility study for the Mantaro water transfer scheme and a master plan for Lima's water system. The Mantaro study has been completed, and all other components are being implemented satisfactorily.

Loan 1771-PE: Lower Piura Irrigation Rehabilitation Project; US\$56 million Loan of February 4, 1980; Effective Date: May 28, 1980; Closing Date: December 31, 1985.

Project implementation is underway and proceeding satisfactorily.

Loan 1806-PE: Petroleum Rehabilitation Project; US\$32.5 million Loan of April 28, 1980; Effective Date: September 30, 1980; Closing Date: January 31, 1983.

The project got underway more slowly than expected because of the weak implementation capacity of PETROPERU. All project components, however, have now begun and execution is proceeding well.

Loan 1812-PE: Puno Rural Development; US\$15 million Loan of April 28, 1980; Effective Date: July 9, 1981; Closing Date: June 30, 1985.

Although there was a delay in making this loan effective, project activities are now underway. Consultants for the extension program have been hired and irrigation system designs are being prepared.

Loan 1888-PE: Bayovar Engineering and Technical Assistance Project; US\$7.5 million Loan of August 21, 1980; Effective Date: December 22, 1980; Closing Date: June 30, 1983.

The feasibility report for the phosphate fertilizer project has been completed and final project preparation activities are now underway.

Loan S-19-PE: SIDERPERU Technical Assistance Project; US\$5.0 million Loan of December 15, 1980; Effective Date: April 16, 1981; Closing Date: June 30, 1985.

A consultant's report evaluating SIDERPERU's expansion plans has been reviewed. A plan of action to deal with the findings of this report is being discussed with SIDERPERU.

Loan 1963-PE: Aviation Development Project; US\$58.0 million Loan of August 19, 1981; Effective Date: January 21, 1982; Closing Date: December 31, 1986.

Procurement activities for equipment have begun.

Loan 1968-PE: Second Industrial Credit Project; US\$60.0 million Loan of August 19, 1981; Effective Date: February 25, 1982; Closing Date: June 30, 1985.

About US\$10 million of this loan has thus far been committed.

Loan 2018-PE: Power Engineering Project; US\$25 million Loan of August 19, 1981;
Effective Date: February 25, 1982; Closing Date: June 30, 1985.

Final design of a number of projects included in this loan, including the Yuncan hydroelectric project, are now underway.

Loan 2064-PE: Small-Scale Enterprise Project; US\$26 million of June 16, 1982;
Effective Date: August 17, 1982; Closing Date: December 31, 1985.

Initial subloan requests are now under review.

Loan 2091-PE: Eighth Highway Project; US\$93 million Loan of June 4, 1982;
Effective Date: _____; Closing Date: June 30, 1986.

Loan effectiveness has been delayed because of the difficulty encountered by the Government in meeting the loan agreement condition of installing qualified candidates for senior positions in the Highways Directorate. This problem is now close to resolution.

Loan 2117-PE: Oil Refinery Engineering Project; US\$5.3 million Loan of
September 17, 1982; Effective Date: _____
Closing Date: June 30, 1985.

Consultants are now being selected.

Loan 2139-PE: Lima Water Supply Project; US\$40.6 million Loan of June 4, 1982;
Effective Date: September 15, 1982; Closing Date: June 30,
1988.

Initial project execution activities are underway.

Loan 2150-PE: Agricultural Research and Extension Project; US\$40.6 million
Loan of September 17, 1982; Effective Date: _____
Closing Date: March 31, 1988.

Some project consultants, to be retroactively financed, have been contracted.

Loan 2179-PE: Sixth Power Project; US\$81.2 million Loan of September 17, 1982;
Effective Date: _____ Closing Date: June 30, 1988.

Initial project execution activities are now underway.

Loan 2204-PE: Public Sector Management Project; US\$10.2 million Loan of
_____ ; Effective Date: _____ ; Closing date:
December 31, 1985.

The loan was approved by the Executive Directors on September 30, 1982.

PERU

HIGHER AGRICULTURAL EDUCATION PROJECT

SUPPLEMENTARY PROJECT DATA SHEET

SECTION I: TIMETABLE OF KEY EVENTS

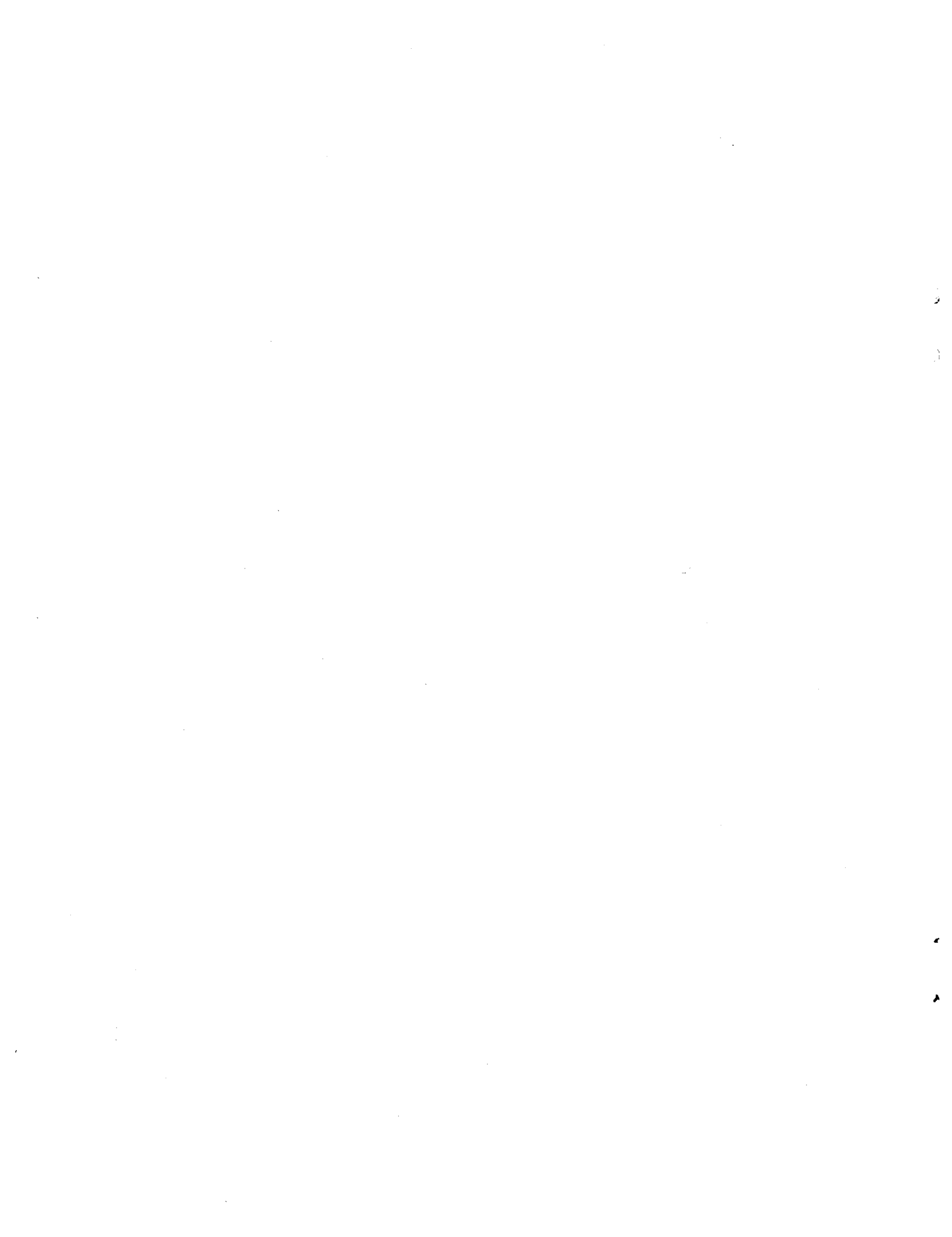
- (a) Time taken by the country to prepare the project: Three years
- (b) Project prepared by: Consultants financed by the IDB
- (c) First presentation to the Bank: July 1981
- (d) Identification of the project: July 1981
- (e) Departure of appraisal mission: March 1982
- (f) Completion of negotiations: September 1982
- (g) Planned date of effectiveness: March 1983

SECTION II: SPECIAL BANK IMPLEMENTATION ACTIONS

None

SECTION III: SPECIAL CONDITIONS

- (a) NAU would limit growth in undergraduate enrollments between 1982 and 1988 to an average rate per annum not exceeding two percent, taking as basis the enrollments during 1981 (para. 51);
- (b) NAU would select candidates for participation in the teacher upgrading program in accordance with selection criteria acceptable to the Bank (para. 55);
- (c) Reports and recommendations of the specialists on improvement of the agriculture economics program would be furnished to the Bank not later than 30 days after their receipt by NAU and the NAU would exchange views with the Bank on these recommendations (para. 57);
- (d) The NAU would employ a project coordinator whose qualifications, experience and terms and conditions of employment are satisfactory to Bank (para. 61); and
- (e) The Government would, by June 30, 1983, set up a revolving fund in the Banco de la Nacion and make an initial deposit to cover approximately two months of counterpart funds disbursements for civil works. The Government would also set up a special fund in the Banco de la Nacion, and at the time of the initial deposit in the revolving fund, the Bank would make an initial deposit in the special fund to finance approximately three months of civil works construction (para 68).





This map has been prepared by the World Bank's staff exclusively for the convenience of the readers of the report to which it is attached. The denominations used and the boundaries shown on this map do not imply, on the part of the World Bank and its affiliates, any judgment on the legal status of any territory or any endorsement or acceptance of such boundaries.